



COMMISSION MEETING MINUTES  
January 26, 2021

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Chair Elofson called the virtual meeting to order and Ms. Cascio read the roll call of HRSD Commissioners.

Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-26
Lynch, Maurice P.	Commission Vice-Chair	1-26
Glenn, Michael E.	Commissioner	Absent
Lakdawala, Vishnu K.	Commissioner	1-26
Levenston, Jr., Willie	Commissioner	1-26
Rodriguez, Stephen C.	Commissioner	1-5
Taraski, Elizabeth	Commissioner	1-26
Ward, Molly Joseph	Commissioner	1-26

1. **Awards and Recognition**

**Action:** No action required.

**Brief:**

- a. **New Employee Introduction** – Mr. Henifin introduced Ms. Holly Anne Matel who was recently hired as a Project Manager in the South Shore Design and Construction Division. Holly Anne received her bachelor’s and master’s degrees in environmental engineering from Old Dominion University (ODU). While a graduate student, she interned at HRSD from 2011-2013 working with Dr. Charles Bott. Holly Anne later worked for Hazen and Sawyer for four years in their Boston and Virginia Beach offices. After that she went to work for a small startup company called Pancopia Inc., doing research for NASA and the USDA. The work for NASA involved researching biological treatment for possible colonization of Mars. Please join me in welcoming Holly Anne back to the HRSD family.
- b. **Recognition** – Mr. Henifin recognized Dr. Bruce Husselbee who recently earned a doctorate in Engineering from Old Dominion University. Bruce became Director of Engineering in July 2005. Before his promotion to this senior leadership position, he was a Project Manager in the HRSD Design and Construction Division for nine years. Mr. Husselbee previously worked in the consulting engineering field for 12 years prior to joining HRSD. He holds a bachelor's degree in Civil Engineering and a master's degree in Environmental Engineering from George Washington University. He also has completed the Kenan-Flagler Water and Wastewater Leadership Program. He is a licensed Professional Engineer in Virginia and a Design-Build Institute of America Certified Professional. He is active in several professional organizations including the



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Old Dominion University Civil and Environmental Engineering Visiting Council, the Water Environment Federation and the Design-Build Institute of America.

- c. **Elizabeth River Project Award** – HRSD is honored to receive the 2021 Elizabeth River Project’s Sustained Distinguished Performance Award. This award is earned through demonstrating significant new efforts in either pollution prevention or wildlife habitat enhancement. This year, we submitted numerous new initiatives, including the nutrient reduction improvements made at the VIP Treatment Plant, our manhole rehabilitation program and increased recycling initiatives. The recognition event was held virtually this year on Thursday, January 21, 2021.



**Public Comment:** None



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2. **Consent Agenda**

**Action:** Approve the items listed in the Consent Agenda.

**Moved:** Vishnu Lakdawala

**Seconded:** Maurice Lynch

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:**

a. Approval of minutes from previous meeting.

b. Contract Awards

1. [Ferric Chloride Blanket Purchase Agreement](#) \$2,464,150

c. Task Orders

1. [Tabb Pressure Reducing Station and Offline Storage Facility](#) \$1,593,342

d. Sole Source

1. [Centrisys Centrifuge at James River Treatment Plant](#)

**Item(s) Removed for Discussion:** None

**Attachment:** #1

**Public Comment:** None



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3. **Fiscal Year-2022 Budget Preview**

**Action:** No action is required.

**Brief:** Staff [presented](#) high-level drivers of the Fiscal Year-2022 budget. The following topics were covered:

- Ransomware Billing Impacts
- Regional Economy
- COVID-19 Municipal Utility Relief Program
- Current Finances as December 31, 2020
- FY-2022 Budget Guidance
- Plan of Finance

**Discussion Summary:** Staff explained the rates for business and residential treatment are the same. There are surcharges for high strength waste but commercial/industrial treatment charges are the same as residential. Commercial businesses are eligible for the CARES Act and a few have applied for the funding. Chair Elofson said the plan proposed was sound and he concurred with moving forward.

**Attachment:** [#2](#)

**Public Comment:** None



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4. **16th Street Emergency Repair  
New CIP and Initial Appropriation**

**Actions:**

- a. **Approve a new CIP project (BH016000) for the 16<sup>th</sup> Street Emergency Repair**
- b. **Appropriate total project funding in the amount of \$3,800,000**

**Moved:** Willie Levenston

**Seconded:** Maurice Lynch

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**CIP Project:** BH016000

**Project Description:** An emergency declaration was authorized on January 8, 2021 for the repair of the 36-inch Reinforce Concrete Pipe (RCP) pipeline along [16<sup>th</sup> Street in the City of Newport News](#). On January 4, 2021, at approximately 9:30 a.m., a failure occurred on the RCP force main. This pipe carries all of the flows originating from the City of Hampton service area and from the Newport News Pump Station (PS) #2 to the Boat Harbor Treatment Plant. With no ability to bypass or divert flows away from this location, HRSD and Newport News staff worked non-stop to establish temporary diversion measures to move flows away from the break. Soon after the system was temporarily repaired and flow was restored, a 25 gallon per minute leak around the temporary repair was discovered. Although, the release is fully contained now, based on CCTV footage there remains a significant risk of another break in the pipe until the bypass system is established.

The diversion into the James River and Salters Creek lasted three days ultimately resulting in a spill of approximately 29 million gallons.

A Contractor is working 24-7 to install the bypass system and anticipates completion of the bypass near the end of January. The bypass consists of approximately 2,400 linear feet of 36-inch HDPE and 1,200 linear feet of 18-inch HDPE.

Work was accomplished with funds from the Operations Department Fiscal Year (FY) 2021 Operating Budget. Although, this work will be capitalized at year-end, in the interim it creates significant stress on the FY 2021 Operations Department Budget. This proposed Commission action creates and funds a new CIP project that will allow future costs as well as costs already incurred against the Operations Department Budget to be charged to this CIP project, thus restoring the FY 2021 Operations Department Budget balance for use as planned for the remainder of FY 2021.





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**Funding Description:** The total cost for this project is estimated to be \$3,800,000 based on a Class 5 cost estimate. The scope of this cost estimate includes costs for the emergency bypass piping and pumping, construction services for installation of a large bypass system, pump and haul services, engineering services and other ancillary equipment and contractual services to help mitigate and restore normal operations. These estimates have been reviewed by staff and are considered reasonable. The proposed Commission action creates a new CIP project that will allow future costs as well as all costs already incurred against the Operations Department Budget for this emergency to be charged to the CIP project.

Staff provided an [update](#) during the meeting.

<b>Schedule:</b>	Emergency Declaration	January 2021
	Construction	February 2021
	Project Completion	July 2021

**Discussion Summary:** The pipeline in this area is the oldest pipe in the North Shore system and was in the CIP for replacement (contract had already been awarded). Age is not necessarily the best indicator of an imminent failure. Condition assessment for the entire HRSD system will be reviewed in more detail during the annual meeting this afternoon and again at a future Commission meeting.

**Attachment:** [#3](#)

**Public Comment:** None



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5. **Hampton Trunk A & B Replacement – Jefferson Avenue to Walnut Avenue  
Additional Appropriation**

**Action:** Appropriate additional funding in the amount of \$1,164,091.

**Moved:** Willie Levenston

**Seconded:** Elizabeth Taraski

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**CIP Project: BH015600**

Budget	\$12,230,732
Previous Expenditures and Encumbrances	(\$12,194,823)
Available Balance	\$35,909
Proposed Change Order No. 1 to Tidewater Utility Construction Inc.	(\$700,000)
Proposed Contingency	(\$500,000)
Project Shortage/Requested Additional Funding	(\$1,164,091)
Revised Total Project Authorized Funding	\$13,394,823

<b>Contract Status with Change Orders:</b>	<b>Amount</b>	<b>Cumulative % of Contract</b>
Original Contract for Tidewater	\$9,223,670	
Total Value of Previous Change Orders	\$0	0%
Anticipated Change Order	\$700,000	
Total Value of All Change Orders	\$700,000	7.3%
Anticipated Contract Value	\$9,923,670	

**Project Description:** This project involves the replacement of approximately 5,000 linear feet of 36-inch ductile iron and 4,800 linear feet of 36-inch and 34-inch reinforced concrete pressure (RCP) pipe from just north of the intersection of 14th Street and Jefferson Avenue to the intersection of 16th Street and Buxton Avenue in Newport News. This project will replace the existing force main from the upstream terminus of the Hampton Trunk 'A' Replacement project to the downstream terminus of the Hampton Trunk "B" Claremont Force Main project.



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**Funding Description:** The original CIP project estimate did not anticipate an expedited construction schedule and two new tie-in locations. A recent failure on the existing 36-inch RCP pipeline occurred along 16th Street in the City of Newport News prompting the expedited construction activities to facilitate the removal of a temporary bypass pipe (currently under construction) on 16th Street. This change order will significantly reduce the time and impact the failure and bypass will have on the community. A budgetary estimate of \$700,000 was developed by Whitman, Requardt & Associates for this anticipated change order. This request includes a \$500,000 contingency to accommodate any additional unforeseen conditions.

This project requires additional funding due to these unforeseen changes. The estimated amount for this effort is \$700,000 and exceeds the available balance remaining for this project.

**Analysis of Cost:** The \$700,000 budgetary estimate includes a combination of unit prices from the existing CIP contract and historical pricing for recent similar projects and is in agreement with other similar projects.

**Change Order Description:** This change order will cover the cost of accelerating the project, out of sequence construction activities, and additional resources to prioritize the installation of a 2,500 linear foot ductile iron force main portion of the project from Jobs Place to Monitor Merrimac Outlook Park on 16th Street. Two new tie-in locations will also be added to the contract so the bypass can be tied back into the existing system.

<b><u>Schedule:</u></b>	Construction	September 2020
	Project Completion	April 2022

**Attachment:** None

**Public Comment:** None



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6. **Central Environmental Laboratory Phase II - Study  
Additional Appropriation and Contract Award (>\$200,000)**

**Actions:**

- a. **Appropriate additional funding in the amount of \$40,000.**
- b. **Award a contract to CDM Smith, Inc. in the amount of \$400,000.**

**Moved:** Maurice Lynch

**Seconded:** Willie Levenston

**Roll call vote:**

**Ayes:** 6

**Nays:** 0

**CIP Project:** AD012310

Budget	\$400,000
Previous Expenditures and Encumbrances	(\$0)
Available Balance	\$400,000
Proposed Contract Award to CDM Smith	(\$400,000)
Proposed Contingency	(\$40,000)
Project Shortage/Requested Additional Funding	(\$40,000)
Revised Total Project Authorized Funding	\$440,000

**Type of Procurement:** Competitive Negotiation

Proposers	Technical Points	Recommended Selection Ranking
CDM Smith, Inc.	89.9	1
Guernsey Tingle Architects, P.C.	65.5	2
Cornwell Engineering Group	58.0	3

**Contract Description:** This contract will provide a study as outlined in the project description. A Public Notice was issued October 11, 2020. Three firms submitted proposals on November 17, 2020 and all three firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the requirements in the Request for Proposals. Three firms were short listed, interviewed and technically ranked. The Professional Services Selection Committee recommends the firm of CDM Smith, Inc. whose professional qualifications and proposed services best serve the interest of HRSD.

**Project Description:** This project includes a needs assessment and feasibility assessment of the Central Environmental Laboratory's (CEL) 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, ability to meet Sustainable Water Initiative for Tomorrow (SWIFT) program goals



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and future regulatory compliance and provide for a modern facility that meets current and future goals of HRSD. Additional services may be requested to advance the outcomes and recommendations from this study including design services, pre-construction services, contract administration services, field engineering and inspection services, startup and testing services, operations and training services, and post-startup and certification services.

**Funding Description:** This funding request includes a \$40,000 contingency to accommodate any unforeseen costs not included in the original CIP budget.

**Analysis of Cost:** The study cost was negotiated with CDM Smith and agrees with other similar efforts from other firms.

<b><u>Schedule:</u></b>	Study Start	February 2021
	Study Completion	August 2021

**Attachment:** None

**Public Comment:** None



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7. **Coliseum Pressure Reducing Station Enhanced Storage  
Initial Appropriation and Contract Award (>\$200,000)**

**Actions:**

- a. **Appropriate total project funding in the amount of \$9,435,500.**
- b. **Award a contract to Rummel, Klepper and Kahl, LLP (RK&K) in the amount of \$249,513.**

**Moved:** Vishnu Lakdawala

**Seconded:** Elizabeth Taraski

**Roll call vote:** **Ayes:** 6 **Nays:** 0

**CIP Project:** YR014100

**Type of Procurement:** Competitive Negotiation

<b>Proposers</b>	<b>Technical Points</b>	<b>Recommended Selection Ranking</b>
Rummel, Klepper and Kahl LLP (RK&K)	91	1
Whitman, Requardt & Associates, LLP (WR&A)	81	2

**Contract Description:** This contract is for the Preliminary Engineering Report (PER) phase for the above referenced project. Future phases of the work, including Design and Construction Services, will be negotiated after the PER is completed.

A Public Notice and Request for Proposals was issued on October 4, 2020. Two firms submitted proposals on November 2, 2020 and both firms were determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. Both firms were short listed, interviewed and technical ranked. The proposal submitted by Rummel, Klepper and Kahl, LLP (RK&K) was ranked by technical points to be highest qualified.

**Project Description:** This project will involve the study, design and construction of two additional 2.5-million-gallon offline [storage tanks](#) located at the Coliseum Pressure Reducing Station.

**Analysis of Cost:** The estimated total project cost is \$9,435,500 and is based on a Class 5 CIP-prioritization level estimate prepared by HRSD and includes a 17 percent contingency.



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A meeting was held with RK&K to discuss the project and scope of services. A fee of \$ 249,513 was negotiated for the preparation of a PER. This cost is approximately 3.4 percent of the estimated construction cost and is in agreement with similar work from other firms.

<b><u>Schedule:</u></b>	PER	February 2021
	Design	July 2023
	Bid	April 2024
	Construction	July 2024
	Project Completion	October 2025

**Attachment:** [#4](#)

**Public Comment:** None



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8. **Deep Creek Interceptor Force Main Replacement  
Additional Appropriation**

**Action:** Appropriate additional funding in the amount of \$318,600.

**Moved:** Willie Levenston

**Seconded:** Elizabeth Taraski

**Roll call vote:**

**Ayes:** 6

**Nays:** 0

**CIP Project: NP012600**

Budget	\$6,233,000
Previous Expenditures and Encumbrances	<u>(\$5,927,109)</u>
Available Balance	\$305,891
Proposed Change Orders to S.J. Louis	(\$580,608)
Proposed Contingency	(\$43,883)
Project Shortage/Requested Additional Funding	<u>(\$318,600)</u>
Revised Total Project Authorized Funding	<u>\$6,551,600</u>

**Project Description:** This project replaces the existing 24-inch ductile iron force main from Shell Road to Military Highway with a 24-inch high density polyethylene (HDPE) pipe. Approximately 3,500 linear feet of 16-inch cast iron force main from the intersection of Baugher Avenue to Military Highway will be abandoned. A City of Chesapeake pumping station along Butler Street will be connected to an existing HRSD valve just west of Butler Street and Military Highway, which will eliminate approximately 1,200 linear feet of City pipeline.

**Funding Description:** A construction contract was awarded to S.J. Louis Construction, Inc. in November 2019 for \$4,388,122. Work is almost complete, and the project requires additional funding due to changed field conditions. A fiber optic line could not be located running parallel to a railroad track. The alignment was shifted to make use of an existing casing under the track. A change order was negotiated for \$443,703 for this work. Another change order was negotiated for \$136,905 due to delays with a tie-in and for an error in the bid documents regarding the quantity for residential driveway restoration. The total amount for the two change orders is \$580,608 and exceeds the balance available for this CIP project. This request includes a \$43,883 contingency to accommodate any additional unforeseen conditions to complete the project.

**Analysis of Cost:** The Engineer prepared an independent estimate of costs for the proposed change orders and recommends approval.

**Schedule:** Project Completion March 2021

**Attachment:** None

**Public Comment:** None





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9. **James River SWIFT Facility and James River Treatment Plant Advanced Nutrient Reduction Improvements  
Additional Appropriation, Comprehensive Agreement and Proposal Compensation**

**Actions:**

- a. **Appropriate additional funding in the amount of \$88,367,184 to the James River SWIFT Facility project (GN016360).**
- b. **Appropriate additional funding in the amount of \$37,288,106 to the James River Treatment Plant Advanced Nutrient Reduction Improvements project (JR013400).**
- c. **Approve a comprehensive agreement with Ulliman Schutte-Alberici Joint Venture (JV) Team (US-A) including a Contract Cost Limit (CCL) of \$468,073,039.**
- d. **Approve proposal compensation to Kiewit Infrastructure South Co. in the amount of \$310,000.**

**Moved:** Vishnu Lakdawala

**Seconded:** Willie Levenston

**Roll call vote:**

**Ayes: 6**

**Nays: 0**

**CIP Project: GN016360**

Budget	\$182,246,000
Previous Expenditures	<u>(\$4,429,203)</u>
Available Balance	\$177,816,797
Proposed Comprehensive Agreement with US-A	(\$251,710,621)
Proposed Contingency	(\$12,585,530)
Furniture, Fixtures and Equipment (FFE), Landscaping, Ops Relocation	(\$1,887,830)
Project Shortage/Requested Additional Funding	<u>(\$88,367,184)</u>
Revised Total Authorized Funding	\$270,613,184

**CIP Project: JR013400**

Budget	\$194,476,000
Previous Expenditures	<u>(\$2,960,848)</u>
Available Balance	\$191,515,152
Proposed Comprehensive Agreement with US-A	(\$216,362,418)
Proposed Contingency	(\$10,818,120)
Furniture, Fixtures and Equipment (FFE), Landscaping, Ops Relocation	(\$1,622,720)
Project Shortage/Requested Additional Funding	<u>(\$37,288,106)</u>
Revised Total Authorized Funding	\$231,764,106



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**Type of Procurement:** Competitive Negotiation – Design-Build

Proposers	SOQ	Technical Proposal	Price Proposal	Total Ranking	Recommended Selection Ranking
Ulliman Schutte-Alberici JV	16.58	32.28	40.00	88.86	1
Kiewit Infrastructure South Co.	16.57	32.54	35.80	84.91	2

**Contract Description:** The use of the Design-Build project delivery method was approved by the Commission on June 25, 2019. A Public Notice for the Request for Qualifications was issued on February 9, 2020. Four teams submitted Statements of Qualifications on March 10, 2020 and all teams were considered responsive and deemed fully qualified, responsible, and suitable to the requirements in the Request for Qualifications. Two Design-Build teams were short-listed. A Request for Proposals was issued on April 24, 2020 to the short-listed teams. Both short-listed teams submitted Technical Proposals on August 6, 2020 and interviews were held on August 19, 2020. Price proposals were submitted on October 2, 2020.

The Selection Committee recommends the top ranked team, comprised of Ulliman Schutte-Alberici Joint Venture (US-A) with HDR and Black & Veatch as the design engineering consultants. The team not selected was Kiewit Infrastructure South Co. They completed the selection process and was fully responsive to the procurement process. As approved at the January 28, 2020 Commission Meeting, proposal compensation in the amount of \$310,000 is recommended for this team.

The comprehensive agreement is for design-build services to design, build and start up the necessary infrastructure as described in the project description below. The agreement includes the requirement to reach substantial completion no later than December 18, 2025 so that stable recharge operation can be achieved that informs the regional planning efforts and initiates contribution to regional benefits for SWIFT. This completion date in 2025 advances the goal of SWIFT to support the Chesapeake Bay restoration goals by reducing surface water discharge of treated effluent; to provide a sustainable source of groundwater to the Potomac Aquifer; and to protect the aquifer by increasing the hydrostatic pressure, which has the potential to prevent saltwater intrusion and to slow, stop or reverse land subsidence related to aquifer withdrawals

**Project Description:** The Project consisting of two HRSD capital projects: The James River SWIFT Facility (GN016360) project will include design, construction, and commissioning of new facilities that will apply advanced water treatment to highly treated wastewater from the James River Treatment Plant (JRTP). The resulting SWIFT Water will meet drinking water quality standards and be compatible with the Potomac Aquifer. The proposed facility is expected to have an advanced treatment capacity of 16 million gallons



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per day (MGD). The James River Treatment Plant Advanced Nutrient Reduction Improvements (JR013400) project will include the design, construction, and commissioning of improvements to the secondary treatment process at the JRTP. These advanced secondary treatment improvements, including new secondary clarifiers, will be required to provide stable source water quality that meets the influent requirements of the full scale JRTP SWIFT Facility.

**Funding Description and Analysis of Cost:** The proposed CCL of \$468,073,040 reflects a complete facility. A five percent Owner's contingency to accommodate any additional unforeseen conditions is included in the total capital funding request. The request also includes \$3,510,550 for Furniture, Fixtures and Equipment (FFE), Landscaping (not included in the Comprehensive Agreement), and assistance with relocation of Operations staff and temporary facilities. The Program Manager, AECOM, will provide Owner's Consultant services under the SWIFT Program Management project (GN016320) during the execution of the Comprehensive Agreement. The task order for these services is currently under negotiation and is expected to be approximately \$16 million for the combined projects.

Both projects were appropriated in July 2019 based on Class 5 estimates. Both Price Proposals received from the short-listed teams were significantly higher than these estimates. An analysis conducted in November 2020 indicated that market factors including COVID-19 precautions, local bid environment, labor costs related to availability, and volatile material costs are likely to have increased price proposals. Additionally, the analysis also indicated rates used in the estimate preparation did not accurately reflect appropriate labor rates, escalation, and reasonable contingencies.

This highest ranked proposer had the lower cost estimate of the two received. The cost of construction is a large portion of the difference between the estimate and the Price Proposal. The relative engineering costs within a reasonable range when considered as a percent of construction cost. The project team has been working with the US-A team to develop an improved understanding of cost build up and identify opportunities for value engineering alternatives. The proposed CCL reflects approximately \$20 million of value engineering savings included.

Staff provided a [briefing](#) to review this recommendation and impacts to the overall SWIFT Program.

<b><u>Schedule:</u></b>	Design-Build	February 2020
	Project Completion	December 2025



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**Discussion Summary:** The revised cost will be factored into the long-range Capital Improvement budget as well as the updated financial model. Staff is committed to accommodating this cost in the existing financial model without any impact on the rates. The Consent Decree, as currently proposed and lower cost of financing will help minimize rate impacts in the out years. Projects will be reprioritized to keep the existing financial model and rates as planned.

Through research conducted at both the pilot plant and at the SWIFT Research Center, we learned consistent lower nitrogen levels were necessary to feed into the SWIFT processes. As part of the proposal for the full-scale SWIFT facilities, staff planned for additional facilities to be constructed to remove nitrogen upstream of SWIFT treatment. Initially, nitrogen removal was not necessary to meet the TMDL requirements. However, the WIP III now requires nitrogen removal to meet these new requirements. If the SWIFT facilities are not completed, we will still be required to make improvements to reduce nutrients.

**Attachment:** [#5](#)

**Public Comment:** None



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10. **Little Creek Pump Station Modifications Agreement**

**Action:** Accept the terms and conditions of an agreement for cost sharing of the Little Creek Pump Stations Modifications with the United States of America Department of the Navy (Little Creek) 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:** Elizabeth Taraski  
**Seconded:** Vishnu Lakdawala  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project:** CE011830

**Project Description:** HRSD is constructing the Little Creek Pump Stations Modifications Project to facilitate diversion of flow from Chesapeake-Elizabeth Treatment Plant. There are five terminal sewer pumping stations serving the Little Creek Amphibious Base. HRSD will be responsible for upgrading one station (PS 751) to meet future system pressures. The work will include new pumps with variable frequency drives and associated electrical and instrumentation improvements. Two other stations are being upgraded by Little Creek to meet the future system pressures and the remaining two stations were determined to be adequate for the future hydraulic conditions.

HRSD and Little Creek agree it is in the best interest of both parties for HRSD to design and construct the necessary upgrades of the Little Creek pumping facilities. The construction is limited to Little Creek PS 751. Exhibit A shows the project location.

**Agreement Description:** The attached [Agreement](#) between HRSD and Little Creek describes the terms of the cost sharing for the Little Creek Pump Stations Modifications project. The agreement has been reviewed by HRSD legal counsel.

**Analysis of Cost:** The estimated cost of the pump station modifications (\$271,000) is based on the construction proposal provided by HRSD's annual services electrical contractor and is the basis for this cost sharing agreement.

**Attachment:** #6

**Public Comment:** None



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11. **Lucas Creek Pump Station Replacement  
New CIP, Initial Appropriation and Task Order (>\$200,000)**

**Actions:**

- a. **Approve a new CIP (JR013500) Lucas Creek Pump Station Replacement.**
- b. **Appropriate total project funding in the amount for \$10,400,000.**
- c. **Approve a task order with HDR, Inc. in the amount of \$899,459.**

**Moved:** Willie Levenston

**Seconded:** Maurice Lynch

**Roll call vote:** **Ayes:** 6 **Nays:** 0

**CIP Project:** JR013500

**Project Description:** This project was initiated under JR010600 Lucas Creek Pump Station Upgrades project. A Preliminary Engineering Report was completed under this project. After evaluating several alternatives and considering cost projections, replacement of the pump station was determined the optimal solution to address conditional and operational issues. This new project includes the replacement of the existing Lucas Creek Pump Station to include all yard piping, and an addition of two flow meters and vaults. On May 26, 2020 the Commission approved the purchase of the adjoining property (748 Old Lucas Creek Road, Newport News) to facilitate the construction of the new pump station. This project is listed in Phase Two of the U.S. EPA Consent Decree Rehabilitation Action Plan and must be completed by May 2025.

**Task Order Description:** This task order will provide final design and bid phase services.

**Funding Description:** The estimated total project cost is \$10,400,000 and is based on a construction cost estimate of \$8,388,123 combined with an engineering services estimate of \$1,500,000 and a 20 percent contingency allowance of \$500,000. Engineering services will be provided by HDR, Inc. and includes design and construction phase services.

**Analysis of Cost:** The cost for this task order is based on a negotiated number of consulting hours and hourly rates. The engineering services as a percentage of construction cost is comparable to other pump station replacement projects of similar size and complexity.

<b><u>Schedule:</u></b>	Design	February	2021
	Bid	November	2021
	Construction	March	2022
	Project Completion	May	2024

**Public Comment:** None



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12. **Cybersecurity Practice and Procedure Initiative  
Managed Security Services Provider  
Initial Appropriation and Contract Award (>\$200,000)**

**Actions:**

- a. **Appropriate total project funding in the amount of \$15,500,000.**
- b. **Award a contract for Managed Security Services to ReliaQuest, LLC in the estimated amount of \$1,500,000 for year one with four years annual renewal options and an estimated cumulative value in the amount of \$7,500,000.**

**Moved:** Vishnu Lakdawala

**Seconded:** Elizabeth Taraski

**Roll call vote:**

**Ayes:** 6

**Nays:** 0

**CIP Project:** AD012500

**Type of Procurement:** Competitive Negotiation

<b>Proposers</b>	<b>Technical Points</b>	<b>Recommended Selection Ranking</b>
ReliaQuest, LLC	80	1
ECS Federal LLC	79	2
International Business Machines Corporation DBA IBM	78	3
Raytheon Technologies	69	4
RoundTower Technologies LLC	68	5
Creative Breakthroughs, Inc	66	6
Open Text Inc	44	7

**HRSD Estimate:**

**\$8,800,000**

**Contract Description:** This contract is for a Managed Security Service Provider (MSSP). A Public Notice was issued on September 18, 2020. Seven firms submitted proposals on October 29, 2020 and all firms were determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. Six firms were short listed, interviewed and technical ranked. The proposal submitted by ReliaQuest, LLC was ranked by technical points to be highest qualified.

ReliaQuest’s final proposal contains the necessary fixed price components of security operations and monitoring, tailored incident response support options to integrate with the recently signed CrowdStrike Complete solution, and vulnerability management solutioning.



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ReliaQuest proposes the options for flexibility in solutioning on all other requirements, both identified and yet to be discovered without narrowing HRSD to potentially high cost solutions. ReliaQuest is also the only MSSP with cybersecurity as their only focus and with current water and wastewater customers. They are also a confirmed partner with CrowdStrike, a solution we have decided to invest in as a result of the recent ransomware incident.

**Project Description:** This project will provide for the development of a sustainable comprehensive framework for secure computing and data management utilizing a variety of hardware, software, and professional contractual services.

**Analysis of Cost:** Independent interviews were held with the top six highest ranked Offerors to further evaluate their qualifications. Negotiations were held with the three highest ranked Offerors, ReliaQuest, IBM, and ECS Federal to negotiate contract terms and a fair and reasonable cost. The labor rates, fixed price components and support were determined to be fair and reasonable compared to similar and current contracted rates.

<b><u>Schedule:</u></b>	PER	July 2019
	Design	July 2020
	Bid	June 2025
	Construction	June 2025
	Project Completion	June 2025

**Discussion Summary:** All systems have been restored from the cyberattack in October. The final forensics report indicates there was no evidence of exfiltration of data. This is largely due to the fast action of staff and good backup procedures in place that allowed systems to be relatively quickly restored from backups.

**Attachment:** None

**Public Comment:** None





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13. **Middlesex Interceptor System Program Phase II – Hartfield Pump Station  
New CIP, Initial Appropriation and Task Order**

**Actions:**

- a. **Approve a new CIP project (MP013720) for the Middlesex Interceptor System Program Phase II – Hartfield Pump Station.**
- b. **Appropriate total project funding in the amount for \$5,211,000.**
- c. **Approve a task order with Kimley-Horn and Associates, Inc. in the amount of \$372,400.**

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project: MP013720**

**Project Description:** [Middlesex Interceptor System Program Phase II](#) – Urbanna to Mathews Transmission Force Main (MP013700) will be closed out after the PER phase of work has been completed and three new CIP projects are being created. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II – Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II – Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II – Transmission Force Main (MP013730) will be managed and funded by HRSD.

This project generally consists of the construction of a new sanitary sewer pump station in the Hartfield area and approximately 1,500 linear feet of sewer force main along Wood Brothers Road to convey flow between the pump station and the Middlesex Transmission Force Main in General Puller Highway. This project will be funded through the Virginia Clean Water Revolving Loan Fund program.

**Task Order Description:** This task order will provide final design phase services.

**Analysis of Cost:** The cost for this task order is based on a detailed negotiated number of consulting hours and hourly rates. The engineering services as a percentage of construction is comparable to other pump station projects of similar size and complexity and is considered reasonable for this effort.



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**Schedule:**      Design                                      February 2021  
                         Bid                                        March 2022  
                         Construction                              June 2022  
                         Project Completion                          June 2024

**Attachment:** [#7](#)

**Public Comment:** None



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14. **Middlesex Interceptor System Program Phase II – Saluda Pump Station  
New CIP, Initial Appropriation and Task Order**

**Actions:**

- a. **Approve a new CIP project (MP013710) for the Middlesex Interceptor System Program Phase II – Saluda Pump Station**
- b. **Appropriate total project funding in the amount for \$2,244,000.**
- c. **Approve a task order with Kimley-Horn and Associates, Inc. in the amount of \$250,300.**

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project: MP013710**

**Project Description:** [Middlesex Interceptor System Program Phase II](#) – Urbanna to Mathews Transmission Force Main (MP013700) will be closed out after the PER phase of work has been completed and three new CIP projects are being created. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II – Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II – Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II – Transmission Force Main (MP013730) will be managed and funded by HRSD.

This project consists of the construction of a new sanitary sewer pump station in Saluda, Virginia and approximately 1,700 linear feet of 3-inch sewer force main between the proposed Central Middlesex Treatment Plant pump station and the termination point of the Middlesex IFM Phase I project and the decommissioning of HRSD’s existing Central Middlesex Treatment Plant. The recommended alternative is to construct the new pump station within the limits of an existing parking area adjacent to the treatment plant. After the new pump station is placed into service, the existing treatment plant will be demolished and converted to a parking lot. The scope of work generally includes the design and permitting of the new pump station, force main, new parking lot, and developing demolition/decommissioning plans for the existing treatment plant. This project will be funded through the Virginia Clean Water Revolving Loan Fund program.

**Task Order Description:** This task order will provide final design phase services.



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**Analysis of Cost:** The cost for this task order is based on a detailed negotiated number of consulting hours and hourly rates. The engineering services as a percentage of construction is comparable to other pump station projects of similar size and complexity and is considered reasonable for this effort.

<b><u>Schedule:</u></b>	Design	February	2021
	Bid	March	2022
	Construction	June	2022
	Project Completion	June	2024

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
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15. **Middlesex Interceptor System Program Phase II – Transmission Force Main  
New CIP, Initial Appropriation and Task Order**

**Actions:**

- a. **Approve a new CIP project (MP013730) for the Middlesex Interceptor System Program Phase II – Middlesex Transmission Force Main.**
- b. **Appropriate total project funding for MP013730 in the amount for \$33,027,000.**
- c. **Approve a task order with Kimley-Horn and Associates, Inc. in the amount of \$1,877,700.**

**Moved:** Maurice Lynch  
**Seconded:** Elizabeth Taraski  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project: MP013730**

**Project Description:** [Middlesex Interceptor System Program Phase II](#) – Urbanna to Mathews Transmission Force Main (MP013700) will be closed out after the PER phase of work has been completed and three new CIP projects are being created. Two of the CIP projects will manage the reimbursement between HRSD and the County of Middlesex for the Middlesex Interceptor System Program Phase II – Saluda Pump Station (MP013710) and for the Middlesex Interceptor System Program Phase II – Hartfield Pump Station (MP013720). The third CIP project for the Middlesex Interceptor System Program Phase II – Transmission Force Main (MP013730) will be managed and funded by HRSD.

This project includes the construction of a 3.2 mile force main from Urbanna to Cook's Corner in addition to a 13 mile force main along Route 33 in Middlesex County from Cook's Corner to the existing Mathews Force Main. This creates the backbone of the "Middlesex Force Main" solution and includes a horizontal direction drill under the Piankatank River. This interceptor system will convey wastewater from Middlesex County to the York River Treatment Plant and allow for the decommissioning of the Urbanna Treatment Plant. The system will also include the construction of a new pump station(s). This project will also involve provisions for connection of the Topping service area near the intersection of Route 33 and Route 3 and for connection of the Deltaville service area near Hartfield along General Puller Highway.

**Task Order Description:** This task order will provide final design phase services.



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**Analysis of Cost:** The cost for this task order is based on a detailed negotiated number of consulting hours and hourly rates. The engineering services as a percentage of construction is comparable to other force main projects of similar size and complexity and is considered to be reasonable for this effort. scope of work for design phase services.

<b><u>Schedule:</u></b>	Design	February	2021
	Bid	March	2022
	Construction	June	2022
	Project Completion	June	2024

**Attachment:** None

**Public Comment:** None



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16. **South Shore High Point Air Vent Installation Phase I  
Additional Appropriation**

**Action:** Appropriate additional funding in the amount of \$339,821.

**Moved:** Elizabeth Taraski

**Seconded:** Willie Levenston

**Roll call vote:**

**Ayes:** 6

**Nays:** 0

**CIP Project: GN016600**

Budget	\$562,500
Previous Expenditures and Encumbrances	(\$275,172)
Available Balance	\$287,328
Proposed Task Order to Bridgeman Civil	(\$355,260)
Proposed Task Order to Tidewater Utility Construction Inc.	(\$245,115)
Proposed Contingency	(\$ 26,774)
Project Shortage/Requested Additional Funding	(\$339,821)
Revised Total Project Authorized Funding	\$902,321

<b>Contract Status with Task Orders:</b>	<b>Amount</b>
Original Contract with Contractors	\$0
Total Value of Previous Task Orders	\$5,596,808
Requested Task Order	\$600,375
Total Value of All Task Orders	\$6,197,183
Revised Contract Value	\$6,197,183

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

**Funding Description:** Initial appropriation was requested on October 23, 2018 for work to be completed at that time was \$562,500. The CIP budget was modified in 2020 with an estimate of \$902,321. This appropriation is for the remaining prioritized air vent installations.

**Analysis of Cost:** This cost agrees with the existing Sewer Repair and Condition Assessment contract.







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17. **Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition**

**Action:** Approve the purchase of a 35,776 square foot permanent easement and a variable width temporary easement totaling 31,458 square feet in accordance with the terms and conditions of the Agreement and Deed of Easement between JWL Investments, LLC (Landowner) and HRSD for \$33,338.87 (Tax Map: 13-01-048A).

**Moved:** Willie Levenston  
**Seconded:** Vishnu Lakdawala  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project:** SU010200

**Project Description:** This project will close the Town of Surry Treatment Plant and construct a 20-mile long interceptor force main to connect to the existing HRSD force main in the Town of Smithfield. HRSD is a signatory to a Consent Decree with the Virginia Department of Environmental Quality to close the Town of Surry Treatment Plant and this project will eliminate this plant in-lieu of making facility improvements.

As part of the project, HRSD will require over 150 temporary and permanent easements. HRSD has acquired 153 of the 167 temporary and permanent easements needed for this project. The subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD's Policy Guidelines and will require Commission approval.

**Agreement Description:** The attached [Agreement](#) and [Deed of Easement](#) were reviewed by HRSD staff and legal counsel. The [Acquisition Plat](#) and [Facilities Orientation Map](#) are also provided for clarification purposes.

**Analysis of Cost:** The cost for the easement is based upon an appraisal by Valbridge Property Advisors and a negotiated settlement with the property owner.

**Attachment:** #8

**Public Comment:** None



COMMISSION MEETING MINUTES  
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18. **York River Treatment Plant Headworks Building Motor Control Center (MCC) Replacement  
New CIP, Initial Appropriation and Task Order**

**Actions:**

- a. **Approve a new CIP project (YR014500) for York River Treatment Plant Headworks Building Motor Control Center (MCC) Replacement.**
- b. **Appropriate total project funding in the amount of \$498,000.**
- c. **Approve a task order for Saunders Contracting Inc. in the amount of \$498,000.**

**Moved:** Maurice Lynch  
**Seconded:** Elizabeth Taraski  
**Roll call vote:**

**Ayes:** 6      **Nays:** 0

**CIP Project:** YR014500

**Project Description:** This project will replace the Headworks Building motor control centers (MCCs) that were installed in the early 1980’s. It will include the procurement of two motor control centers, conductors, conduits, and appurtenances. On December 11 and 12, 2020, the headworks building process experienced two unplanned electrical outages within a 12-hour period. After further investigation, on-call staff determined that the cause of the outages was due to falling metal debris from the deteriorated copper bus which caused an electrical fault and resulted in an arc flash event. As an interim solution, the staff cleaned loose debris from the deteriorated copper bus and restored power. A condition assessment of the MCCs revealed oxidation, deterioration, and pitting of the copper bus. This project will also seal off all conduit entries to the electrical room to mitigate Hydrogen Sulfide (H2S) intrusion which can be the leading contributor to bus deterioration. Lastly, this project will improve employee safety and process reliability.

**Funding Description:** The total cost for this project is estimated at \$498,000 including a 20 percent contingency.

<b><u>Schedule:</u></b>	Construction	March 2021
	Project Completion	June 2021

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
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19. **COVID-19 Wastewater Surveillance Study Update**

**Action:** No action is required.

**Brief:** Staff presented the latest [data and status](#) of the COVID-19 surveillance work including United States daily cases and 7-day average through January 20, 2021; regional trends including number of COVID-19 clinical cases in Hampton Roads and viral load at HRSD facilities; and a spatial look at the last five weeks.

**Discussion Summary:** The most recent three weeks of sampling are showing a decline in viral load. Regional clinical cases are following this trend. Viral load by facility showed a peak intensity through December 29 at all facilities indicating a post-holiday surge. Moving forward, staff will continue weekly monitoring at the nine major treatment plants and providing data to the Virginia Health Department (VDH) and the Centers for Disease Control (CDC). The Hampton Roads Wastewater Surveillance Workgroup (consisting of HRSD and researchers from ODU and VDH) met on January 22. Three contract staff were hired to support the statewide wastewater surveillance. The goals of this team are to obtain standardized data collection and analysis tools for use throughout the state to coincide with CDC goals for the national program. At the general manager's request, the team will investigate running different assays to look for a variant.

Chair Elofson said he hoped the vaccine rollout will reduce the number of cases. Staff agreed but stated that a significant portion of the population needs to be vaccinated to see a difference in the data.

**Attachment:** [#9](#)

**Public Comment:** None



COMMISSION MEETING MINUTES  
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20. **Capital Improvement Program (CIP)  
Quarterly Update**

**Action: No action is required.**

**Brief:** Implementing the CIP continues to be a significant challenge as we address numerous regulatory requirements, SWIFT Program implementation and the need to replace aging infrastructure. Staff provided a [briefing](#) describing the status of the CIP, financial projections, projects of significance and other issues affecting the program.

**Discussion Summary:** Staff discussed long range plans for the Chesapeake-Elizabeth Treatment Plant. A use for the existing outfall has not yet been determined. Staff hopes to find a beneficial use for the facility and be able to revise/repurpose the plant versus demolishing the property and outfall.

Commissioner Taraski asked for an update on the Wilroy Road projects in Suffolk. The status for the three projects in this area is:

1. Suffolk Pump Station Replacement (NP010620) – Design Phase, Construction Bid Advertisement planned for May/June 2021 (2 construction packages)
2. Shingle Creek/Hickman’s Branch Gravity Sewer Improvements (NP012500) – Construction Phase, Substantial Completion issued 11/27/20
3. Wilroy Road Pressure Reducing Station & Off-Line Storage (NP014000) – Planning Phase, Engineer Selection Advertisement planned for March 2021 (3-month duration)

**Attachment: #9**

**Public Comment: None**



COMMISSION MEETING MINUTES  
January 26, 2021

21. **U.S. EPA Consent Decree Annual Public Meeting**

**Action:** No action is required.

**Brief:** The Consent Decree with the U.S. EPA requires that we hold an annual informational meeting open to the public and the localities we serve. The meeting is intended to provide an update on compliance activities and status of all activities related to the Consent Decree. The virtual meeting will be held at 1:30 p.m. on January 26, 2021.

The overview will include an explanation of Consent Decree requirements, the Sanitary Sewer Overflow (SSO) history, and asset management program. The asset management program focuses on how to prevent infrastructure breaks and not capacity related overflows. The overwhelming volume of overflow lost across the years is due to infrastructure failure and not capacity related issues that would be prevented by further investment in the Consent Decree.

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
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22. **Unfinished Business – Enabling Act Amendments**

The Enabling Act Amendment introduced by Delegate Bloxom is currently in the General Assembly and is scheduled to be heard in the Cities, Counties and Towns Land Use subcommittee agenda this week. If it passes (both chambers and is signed by the Governor) it will be effective July 1, 2021.

23. **New Business – None**

24. **Commissioner Comments – None**

Commissioner Lynch welcomed Dr. Husselbee to the doctoral family. On behalf of the Commission, Chair Elofson commended Dr. Husselbee on pursuing and obtaining his PhD.

25. **Public Comments Not Related to Agenda – None**

26. **Informational Items**

**Action:** No action required.

**Brief:** The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)
- c. Effluent Summary ([Monthly](#) and [Annual](#))
- d. Air Summary ([Monthly](#) and [Annual](#))
- e. [Emergency Declaration – 16<sup>th</sup> Street Emergency Repair](#)

**Attachment:** #11

**Public Comment:** None

**Next Commission Meeting Date:** February 23, 2021

**Meeting Adjourned:** 11:52 a.m.

SUBMITTED:

Jennifer L. Cascio

Jennifer L. Cascio  
Secretary

APPROVED:

Frederick N. Elofson

Frederick N. Elofson, CPA  
Chair

HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #1

Agenda Item 2. Consent Agenda

## CONSENT AGENDA ITEM 2.b.1.– January 26, 2021

**Subject:** Ferric Chloride Blanket Purchase Agreement  
Contract Award (>\$200,000)

**Recommended Action:** Award a blanket purchase contract for Ferric Chloride to PVS Technologies, Inc. in the estimated amount of \$492,830 for year one with four annual renewal options and an estimated cumulative value in the amount of \$2,464,150.

**Type of Procurement:** Competitive Bid

Bidder	Bid Amount
PVS Technologies, Inc.	\$492,830
Kemira Water Solutions, Inc.	\$536,414

**HRSD Estimate:** \$531,994

**Contract Description:** This contract is an agreement for PVS Technologies to furnish and deliver Ferric Chloride, 37-42 percent solution. This will be used at James River, Nansemond and York River Treatment Plants for chemical phosphorus removal. Although each of these plants relies primarily on biological phosphorus removal, a small amount of ferric chloride is needed to augment this. The purpose of periodic addition of ferric chloride at Atlantic Treatment Plant is to assist with settling in the primary clarifiers and to help control sulfide in the anaerobic digesters.

**Analysis of Cost:** The Solicitation requested a unit price for ferric sulfate (currently in use) and/or ferric chloride due to the volatile market conditions of both products from year to year. Bidders would not be disqualified if unable to price both options. Bids were received for ferric sulfate; however, the bid amounts shown above reflect the ferric chloride product only. This was evaluated to be the most advantageous to use for the treatment plants with a significant cost savings.

Ferric chloride has not been used since 2016. The HRSD estimate shown is for ferric sulfate using the current estimated annual usage calculated against the FY-2021 budget projection.



## CONSENT AGENDA ITEM 2.c.1. – January 26, 2021

**Subject:** Tabb Pressure Reducing Station and Offline Storage Facility  
Task Order (>\$200,000)

**Recommended Action:** Approve a task order with Hazen and Sawyer (Hazen) in the amount of \$1,593,342.

**CIP Project: YR010900**

Budget	\$13,600,000
Previous Expenditures and Encumbrances	(\$1,320,345)
Available Balance	<u>\$12,279,655</u>

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with Hazen	\$413,040
Total Value of Previous Task Orders	\$44,855
Requested Task Order	\$1,593,342
Total Value of All Task Orders	\$1,638,197
Revised Contract Value	\$2,051,237
Engineering Services as % of Construction	14.3%

**Project Description:** This project will construct a new Pressure Reducing Station and Offline Storage Tanks in the vicinity of Tabb High School in York County. Completion of this project will satisfy a requirement of the Regional Wet Weather Management Plan and provide flow equalization at both James River and York River Treatment Plants in support of new SWIFT facilities.

**Task Order Description:** This task order will provide design and bid phase services for the project.

**Analysis of Cost:** The cost for this task order is based on a negotiated price between Hazen and HRSD. The design phase services as a percentage of construction cost is 10.22 percent, which compares well with the percentages for other similar projects.

<b>Schedule:</b>	PER	October 2020
	Design	February 2021
	Bid	March 2022
	Construction	May 2022
	Project Completion	January 2024

CONSENT AGENDA ITEM 2.d.1. – January 26, 2021

**Subject:** Centrisys Dewatering Centrifuge  
Sole Source (>\$10,000)

**Recommended Action:** Approve the use of Centrisys Dewatering Centrifuge by Centrisys Corporation at the James River Treatment Plant.

**CIP Project:** GN016700 (Treatment Plant Solids Handling Replacement Phase II)

**Sole Source Justification:**

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

**Details:** Purchase two Centrisys centrifuges for the James River Treatment Plant as a part of Treatment Plant Solids Handling Replacement Phase II (dewatering) project to replace the end of life Sharples centrifuges. In 2017, HDR evaluated several different centrifuge brands and styles. The Centrisys centrifuge was recommended because it meets the requirements set by HRSD. The first Centrisys centrifuge was installed in 2019. The intent of this purchase is to standardize the centrifuges at the James River Treatment Plant to streamline training and spare parts.

HRSD Commission Meeting Minutes  
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Attachment #2

Agenda Item 3. Fiscal Year-2022 Budget Preview presentation



# FY2022 Budget Preview

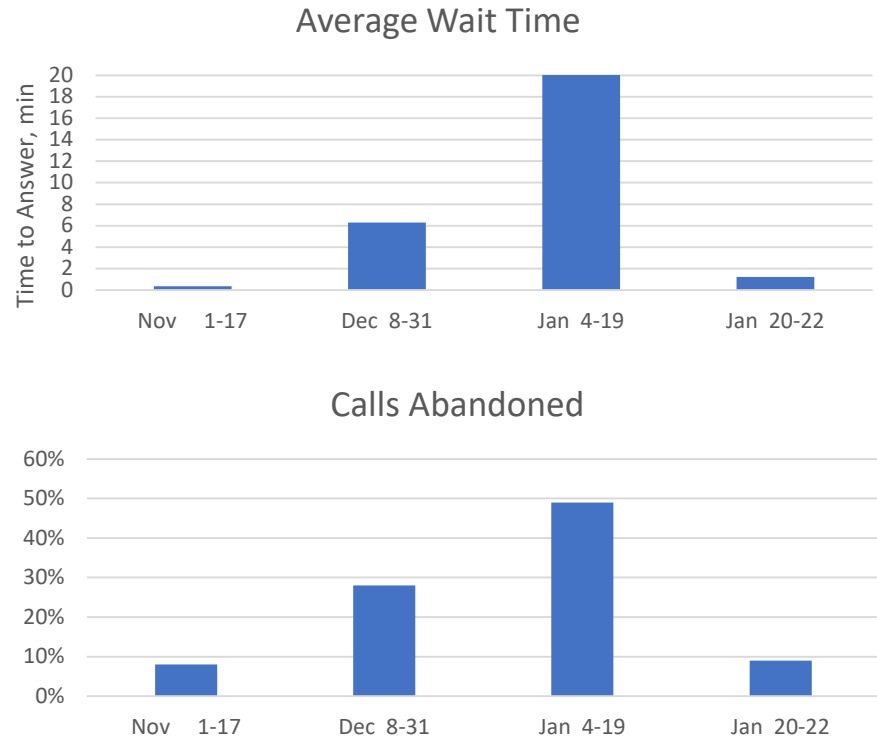
## January 19, 2021

- Ransomware Billing Impacts
- Regional Economy
- COVID-19 Municipal Utility Relief Program
- Current Finances as Dec 31st
- FY22 Budget Guidance
- Plan of Finance

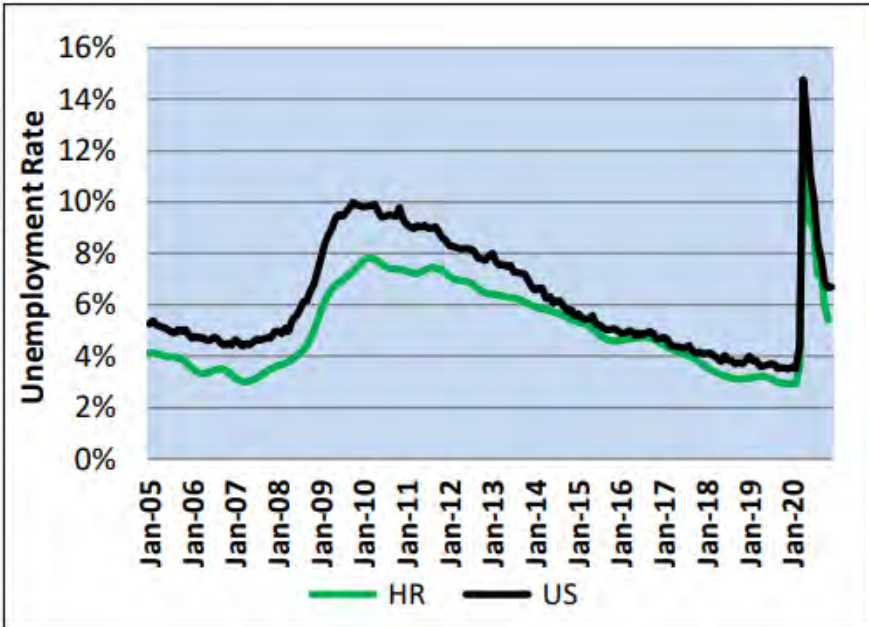
- System went down Nov 17<sup>th</sup>
- No bills sent out until Dec 10<sup>th</sup>
- Payments were received from our vendor but not entered into the billing system
- Two bills were received around the same time
- Some customers had a **DUE IMMEDIATELY** bill message
- Customers did not receive their bills timely, likely due to postal service delays

## Call Center Inundated

- Almost 50% of calls abandoned
- Wait times over one hour during peak periods
- ✓ Multiple media blasts - waived late fees and changed bill date to Jan 31<sup>st</sup>
- ✓ Changed bill and IVR (Interactive Voice Response) message
- ✓ Added more call center staff temporarily

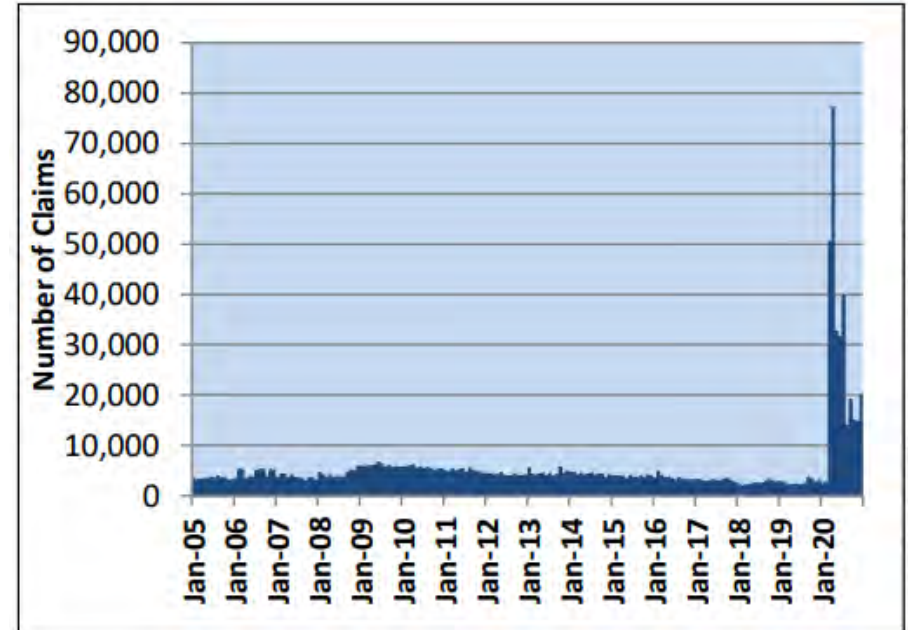


# Hampton Roads Unemployment Rate and Initial Claims



Source: Bureau of Labor Statistics, HRPDC

Nov 2020 @ 5.42%



Source: Virginia Department of Labor, HRPDC

Dec 2020 up 36% MoM



## Single-Family Housing Permits

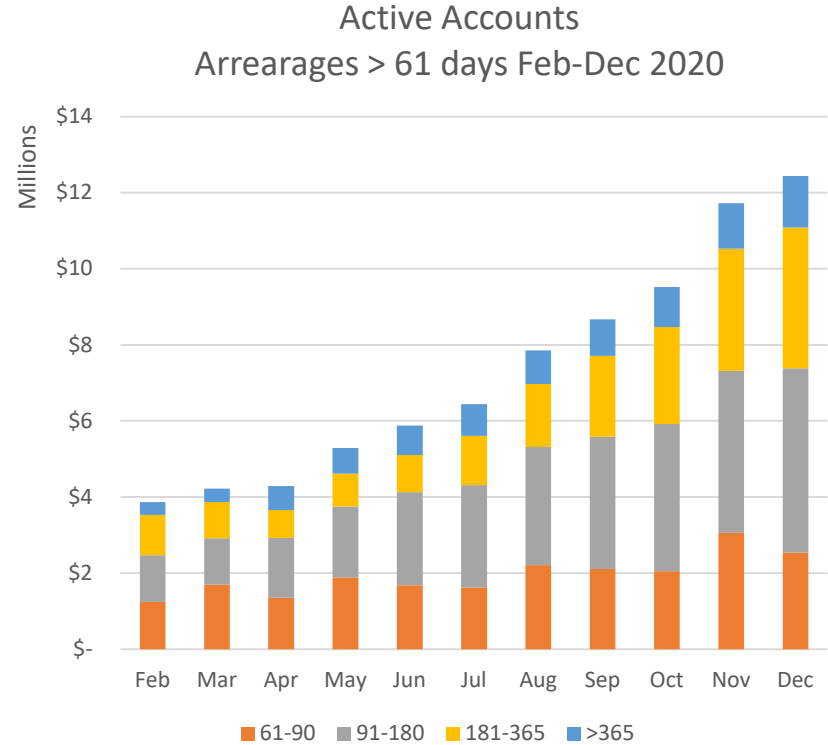


Source: U.S. Census Bureau, HRPDC

- Impacts Facility Charge Revenue and future monthly wastewater charges
- Significant YoY increase
- Homes sales highest recorded since 2005

# COVID-19 Municipal Utility Relief Overview

- HRSD was awarded \$8.7 million
- Customers must provide a COVID-19 impact attestation
  - Online Form
  - Third-Party Call center
- Past due balances between 3/1/20 to 12/31/21 (previously 12/30/20)
- Tagged 60,000 homes in three weeks



- Valid Attestations = 17,537
  - Credit Applied = \$6,810,768
  - Average Credit = \$388.37
  - Remaining Available = \$1,926,345
- Congress approved \$638M for Low-Income Water Program

- Operating Revenue @ 52% (\$166M)
  - Billed Wastewater Charges
    - > 60 days Aging = \$14.6M (Active and Inactive Accounts)
    - Projecting \$10M-\$13M (3-4%) in reduced revenue, net of Utility Relief
- Non-Operating Revenue @ 42% (\$4.4M)
  - Build America Bond Subsidy not received
  - Interest Income lagging

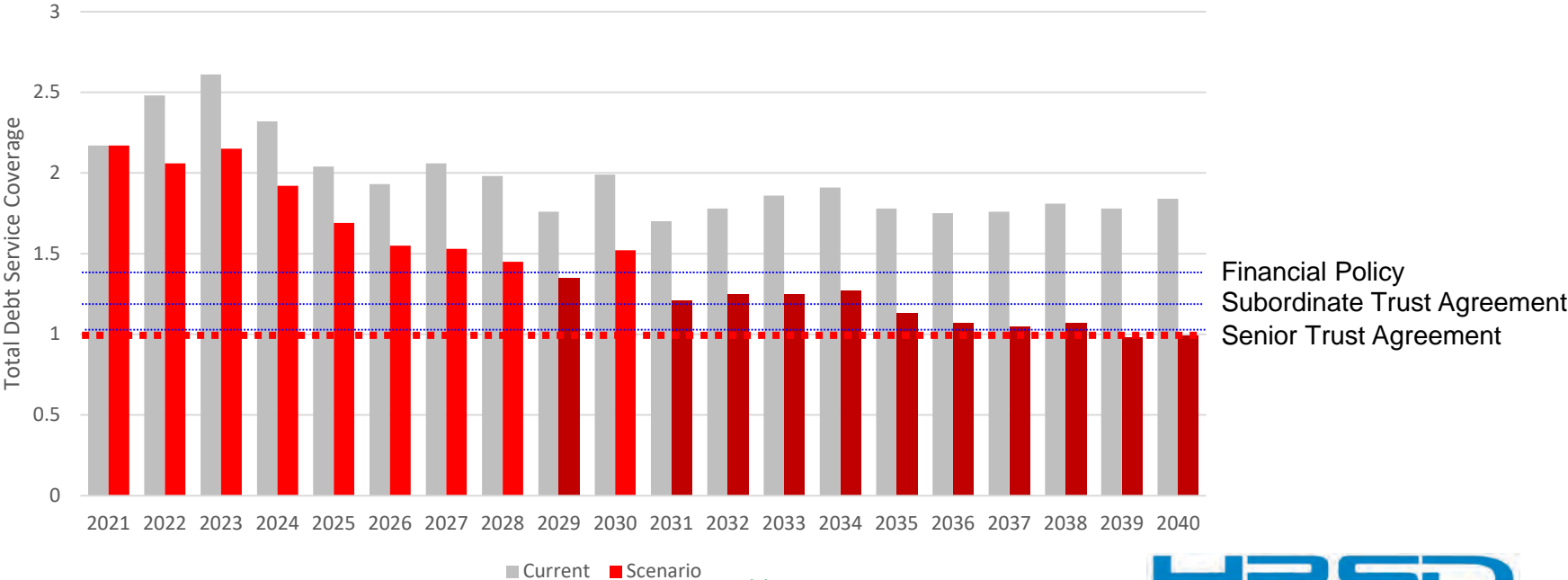
## Expenses @ 12/31 – Mostly below 50%

	Amended Budget	Current YTD	Current YTD as % of Budget (50% Budget to Date)	Prior YTD as % of Prior Year Budget
<b>Operating Expenses</b>				
Personal Services	\$ 60,952,502	\$ 32,107,899	53%	51%
Fringe Benefits	24,945,953	11,940,621	48%	50%
Materials & Supplies	9,663,402	3,618,553	37%	43%
Transportation	1,579,254	409,712	26%	38%
Utilities	13,019,361	5,464,380	42%	45%
Chemical Purchases	10,500,337	3,824,575	36%	41%
Contractual Services	51,831,008	18,318,127	35%	34%
Major Repairs	13,076,208	2,949,852	23%	25%
Capital Assets	867,079	233,051	27%	20%
Miscellaneous Expense	3,721,391	1,613,240	43%	80%
<b>Total Operating Expenses</b>	<b>190,156,495</b>	<b>80,480,010</b>	<b>42%</b>	<b>44%</b>

# SCENARIO: No Rate Increase for FY22

Cumulative Reduced Revenue over 20 years = \$932M

### Total Debt Service Coverage



## Seeking Concurrence on Proposed Budget

- Proceed with the 9% rate increase
  - Utility Relief Funds Still Available - Restarting Water Shut-offs in April/May
  - Pending Low-Income Water Assistance
- Build the Integrated Plan into the Financial Forecast
  - \$200 million on Priority Wet Weather Improvements between 2030 to 2040

- Planning to close on WIFIA Tranche 2 (\$400M+) in the Spring
- Renew Line of Credit with Bank of America
  - SIFMA + 39 basis points (0.45%)
  - Accordion structure up to \$200M
- Apply for \$100M from the Virginia Clean Water Revolving Loan Fund in July 2021



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Questions?

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HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #3

Agenda Item 4. 16<sup>th</sup> Street Emergency Repair presentation



# 16<sup>th</sup> Street Emergency Repair Presentation Commission Meeting

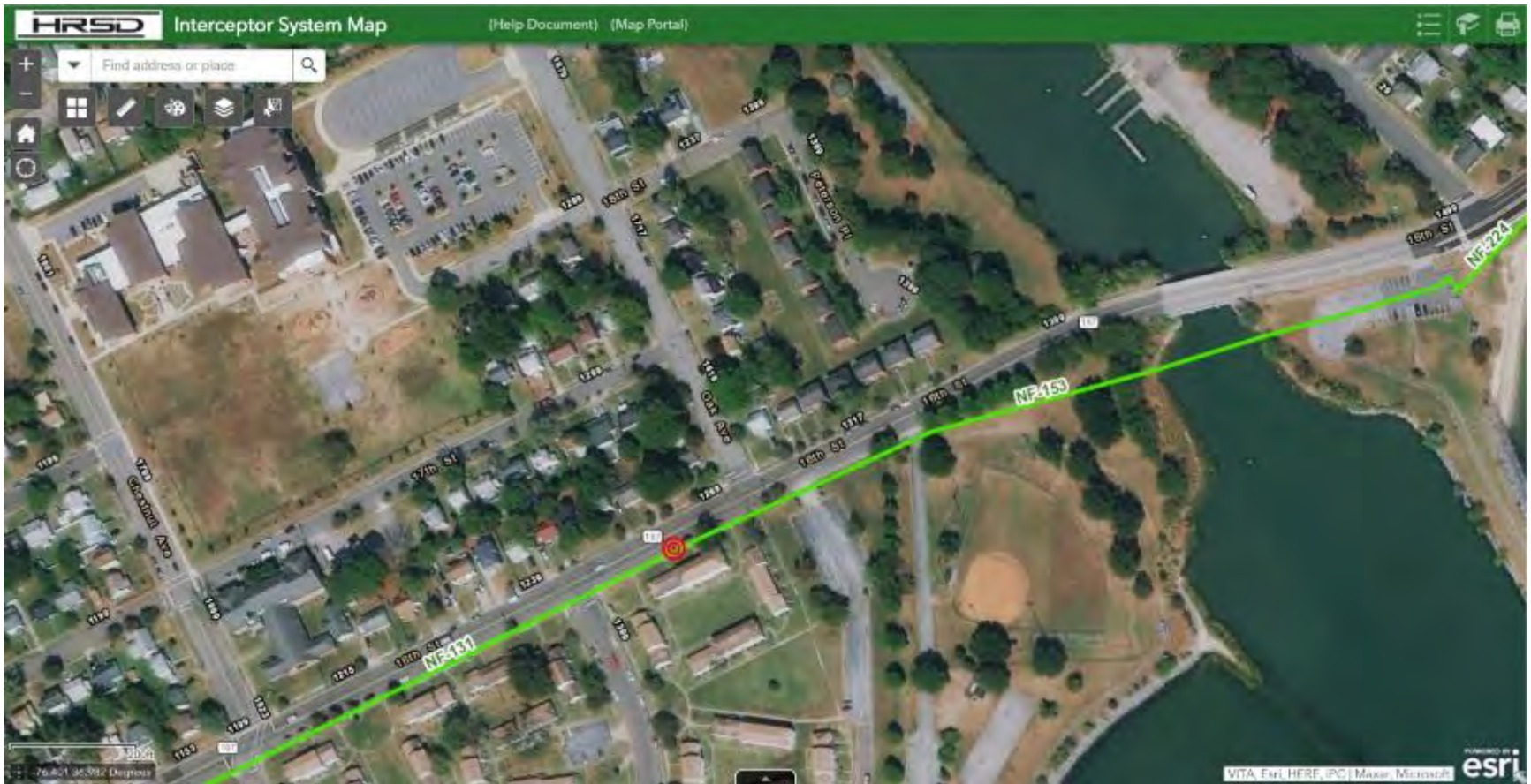
January 26<sup>th</sup> 2021

## 16<sup>th</sup> Street Emergency Repair – Day 1

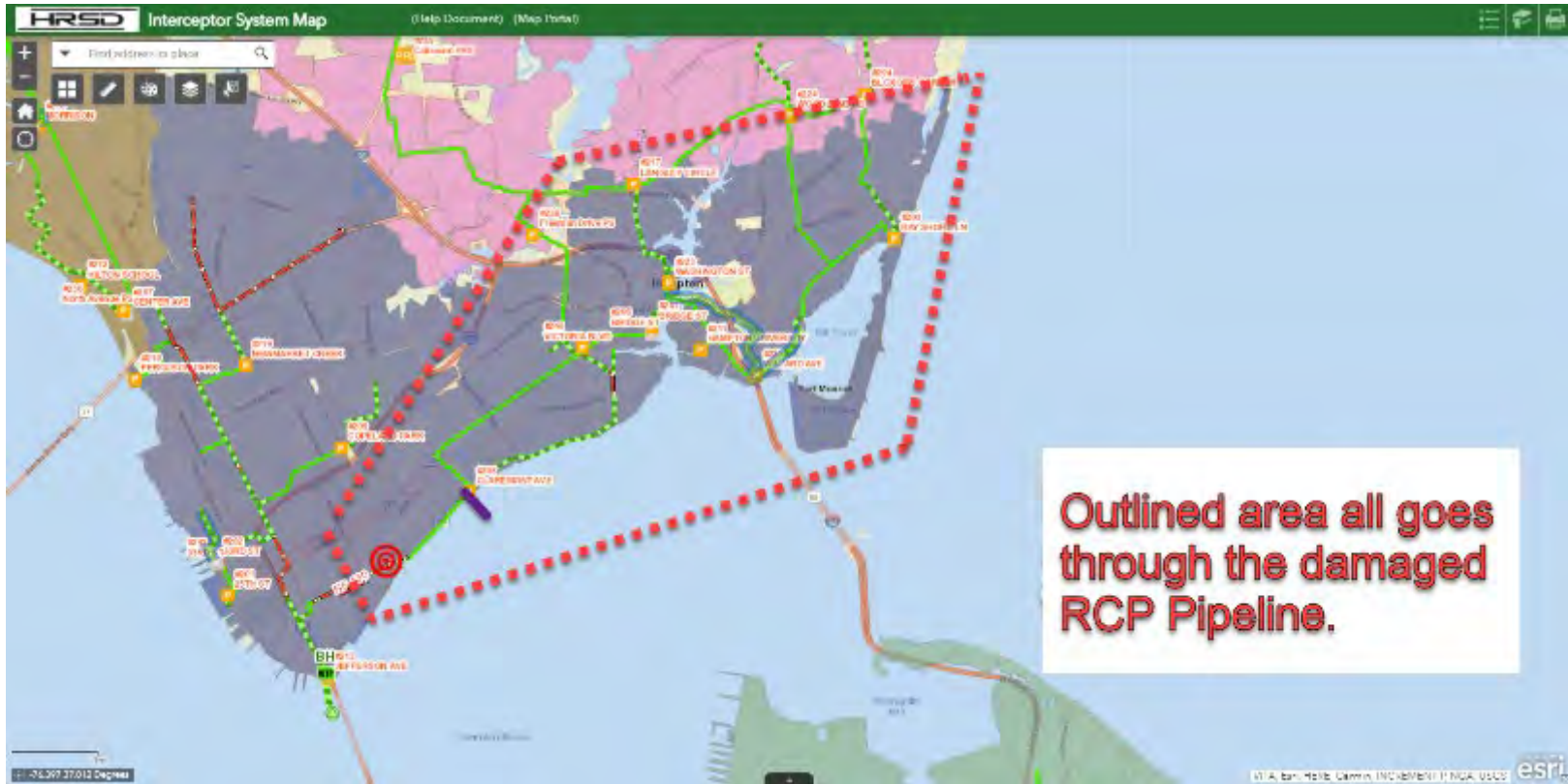
- Monday January 4<sup>th</sup> 10AM: Newport News Public Works Discovers HRSD force main break.



# 16<sup>th</sup> Street Emergency Repair – Break Location



# 16<sup>th</sup> Street Emergency Repair – Affected Service Area



## 16<sup>th</sup> Street Emergency Repair - Challenges

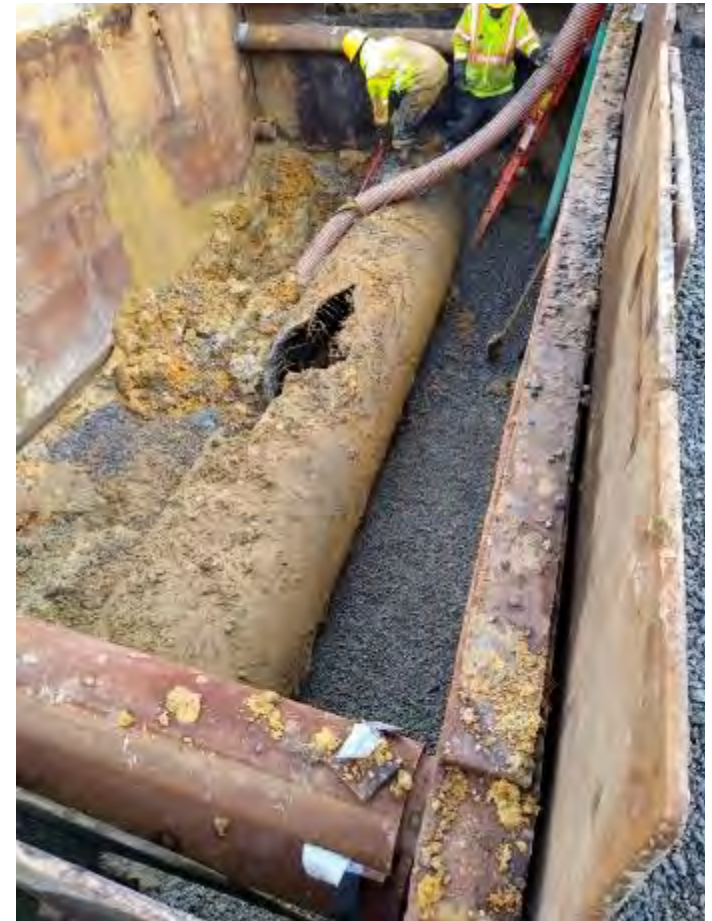
- **System Issues**
  - Average flow through the broken pipeline was 7250 gpm through the event.
  - No ability to divert flows anywhere except for the James River.
- **Newport News coordination**
  - Newport News Pump Station 2 had too much flow to pump and haul and had to be discharged into Salters Creek.
- **Communications Division**
  - Multiple residents were greatly affected by the emergency repair and were contacted by HRSD staff and offered hotel rooms during the repair.
  - Door hangers and one on one communication between residents at the break location and at Claremont PS were conducted multiple times.
- **Spill Report – Water Quality**
  - DEQ performed multiple site inspections of the break site, the Claremont Emergency Outfall and the PS 2 emergency bypass.

## 16<sup>th</sup> Street Emergency Repair – Emergency Bypass at Claremont PS





## 16<sup>th</sup> Street Emergency Repair – Day 2 Cleanup and inspection of pipeline



## 16<sup>th</sup> Street Emergency Repair – Repairing the break



## 16<sup>th</sup> Street Emergency Repair – Day 4: Final Repair



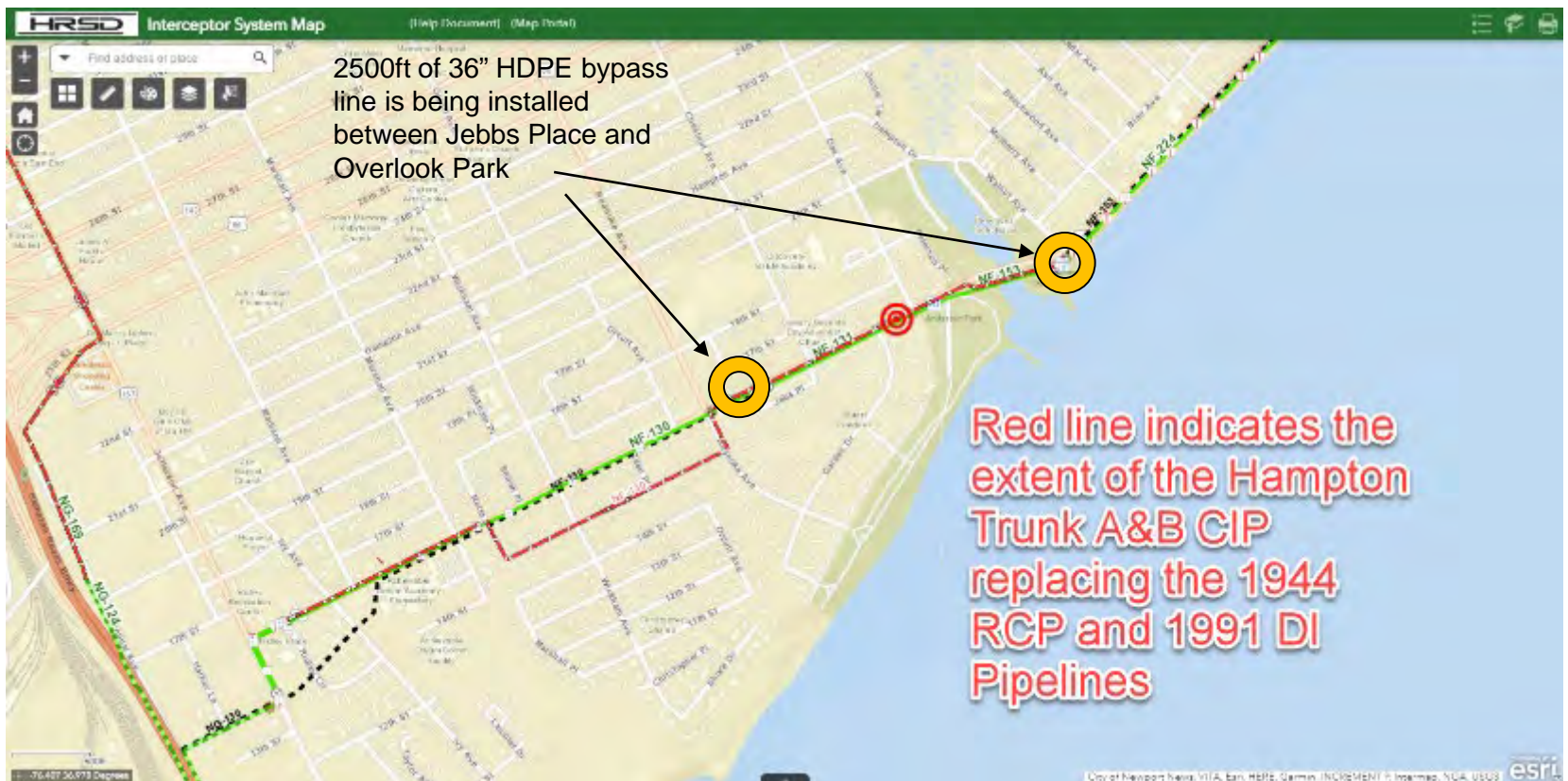
## 16<sup>th</sup> Street Emergency Repair – Emergency Bypass Automation

To protect the integrity of the pipeline upstream and downstream of the repair, HRSD installed an automated valve with controls on the emergency bypass to limit system pressures while the above ground HDPE bypass was being constructed.



## 16<sup>th</sup> Street Emergency Repair – CIP BH0156

The failure occurred along a section of pipe that was actively being replaced by an existing CIP. Tidewater Utilities had already started replacing pipe on the downstream portion of this pipeline.



# 16<sup>th</sup> Street Emergency Repair – Ongoing 36” HDPE bypass and pipe replacement



## 16<sup>th</sup> Street Emergency Repair – Above Ground Bypass Video

- [https://drive.google.com/drive/folders/1nfLvilUpjUqxM\\_ZHB6etRTNAUtBgY929](https://drive.google.com/drive/folders/1nfLvilUpjUqxM_ZHB6etRTNAUtBgY929)



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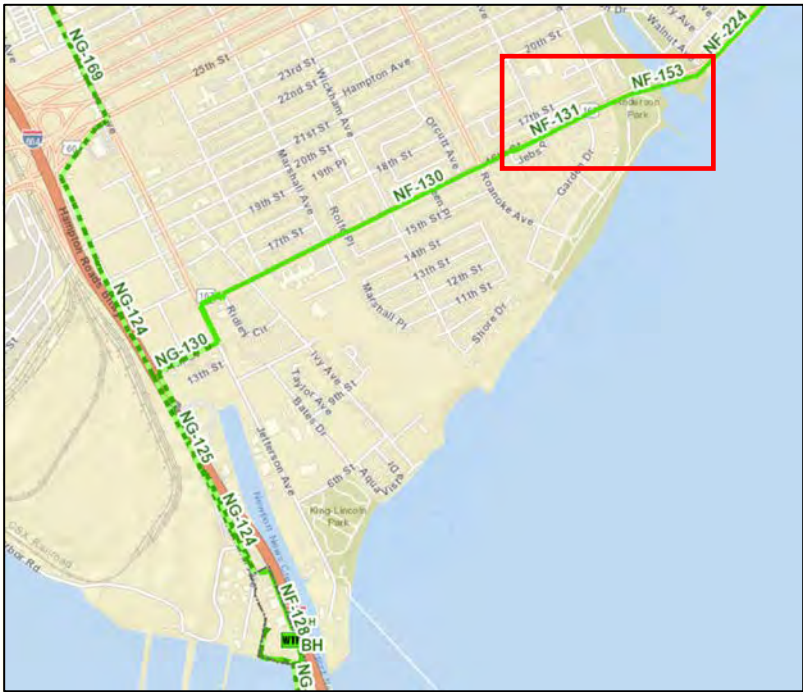
## 16<sup>th</sup> Street Emergency Repair – Final Steps

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- Bridgeman Civil installs 36” HDPE Bypass and 18” PS 2 Bypass pipelines. Pipeline will be fused and connected at Overlook Park to a new plug valve and at Jebbs Place via a Tee being installed between bag stops.
- Once HDPE Bypass is in place HRSD will remove the emergency outfall pipeline at Claremont Pump Station.
- Tidewater will continue installing new DI Pipe for the BH0156 CIP focusing between Jebbs Place and Anderson Park so that the HDPE above ground bypass can be removed. Current estimated completion for this section of pipeline is mid-March.



- THANKS TO EVERYONE INVOLVED
- AN ENTIRE TEAM EFFORT & HRSD ENDEAVOR
- QUESTIONS / COMMENTS



HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #4

Agenda Item 7 – Coliseum Pressure Reducing Station photo



2D



HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #5

Agenda Item 9. – James River SWIFT Facility and James River Treatment Plant Advance Nutrient Reduction Improvements presentation



**James River SWIFT Facility and  
James River TP Advanced  
Nutrient Reduction Improvements  
Comprehensive Agreement**

**January 26, 2021**

- **James River Project Charter & Goals**
- **HRSD Project Delivery Methods**
- **Why Design Build for JR SWIFT?**
- **Procurement Results & Cost Analysis**
- **James River Project Challenges & VE Alternatives**
- **Potential Paths Forward and Impacts to Schedule and CIP**
- **Recommendations**
- **Proposed Change in AECOM Program Management Team Structure**

## SWIFT Full Scale Implementation Program Charter

SWIFT FSIP will implement sustainable managed aquifer recharge infrastructure by developing adaptable, innovative, and cost-effective solutions through a collaborative process, while maintaining HRSD's Mission, Vision, and Values.

### *Mission*

We protect public health and the waters of Hampton Roads by treating wastewater effectively.

### *Vision*

Future generations will inherit clean waterways and be able to keep them clean.

### HRSD Values:

**Our Environment:** We care about our environment.

**Our Customers and Employees:** Our customers and employees are important to us.

**Quality Service:** Quality service is our standard.

**Integrity:** Integrity creates trust.

**Personal Growth:** Personal growth is the foundation for improvement.

**Teamwork:** Teamwork is essential for continuous improvement.

**Stewardship:** We are responsible for HRSD.



## James River Project Charter

The Design-Build Project consisting of the James River SWIFT Facility (GN016360) and James River Treatment Plant Advanced Nutrient Reduction Improvements (JR013400) capital projects will...

... design, construct, and commission a reliable treatment plant that maximizes SWIFT Water recharge, maintains ability to discharge to surface water, is safe to operate, and respects adjacent land users.

... achieve stable recharge operation in 2025, that informs regional planning efforts and initiates contribution to regional benefits of SWIFT.

... be delivered in a manner that:

- is safe;
- maintains effective plant operations to meet permit requirements;
- meets project constraints at the lowest practical life cycle cost;
- leverages research advancements; and
- is in coordination with SWIFT Full Scale Implementation Program.

Design-Bid-Build

Traditional method to deliver projects

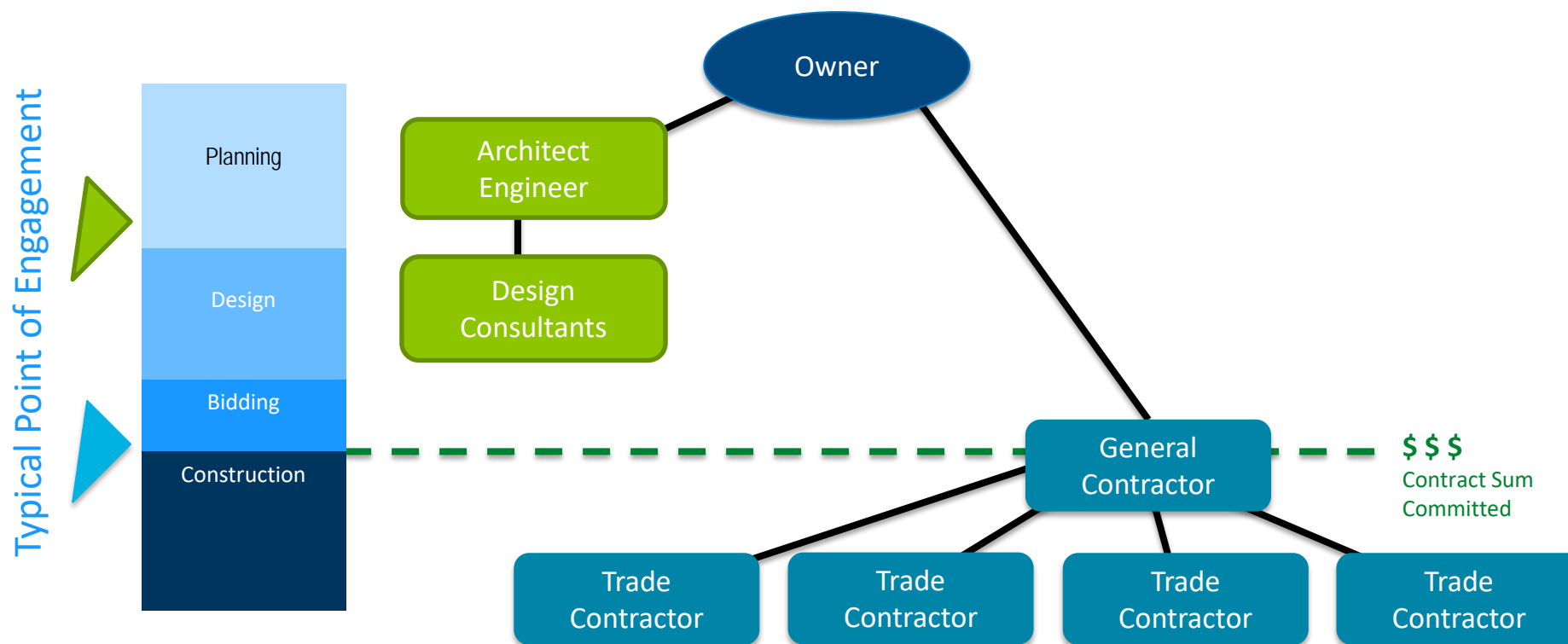
Construction  
Management at Risk  
(CMAR)

Hire a contractor during the design stage

Design-Build

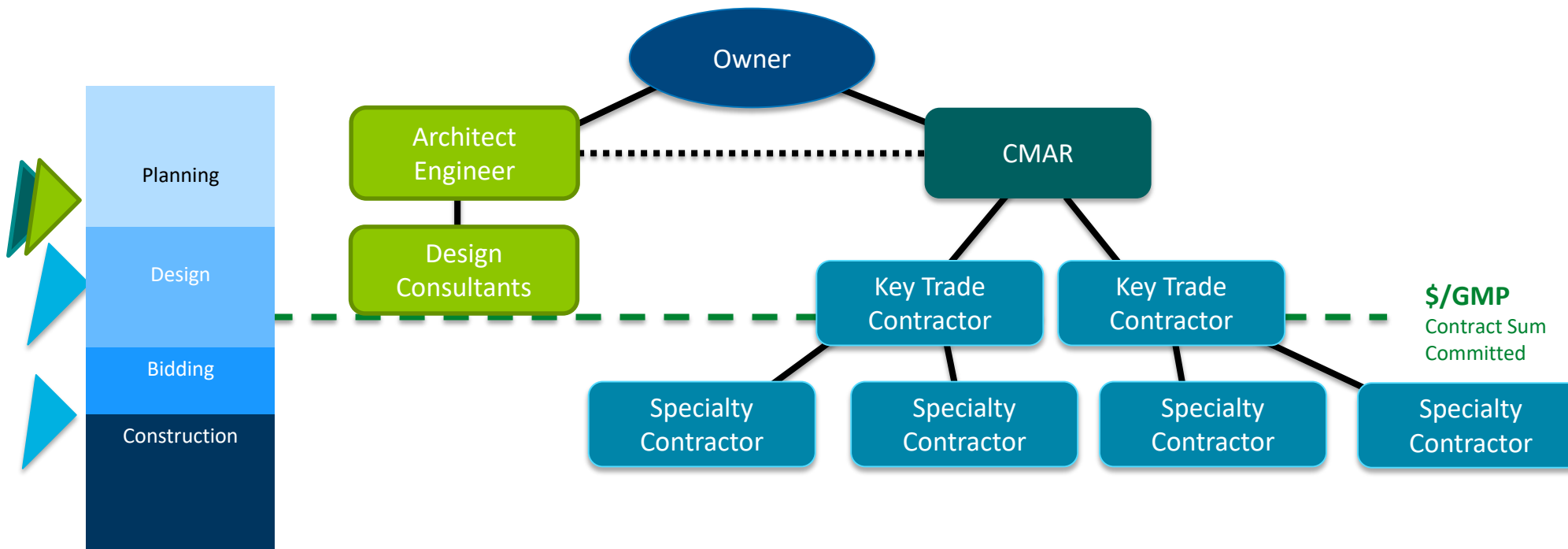
Hire a single design/builder in one step to deliver the project

# Design-Bid-Build Project Delivery



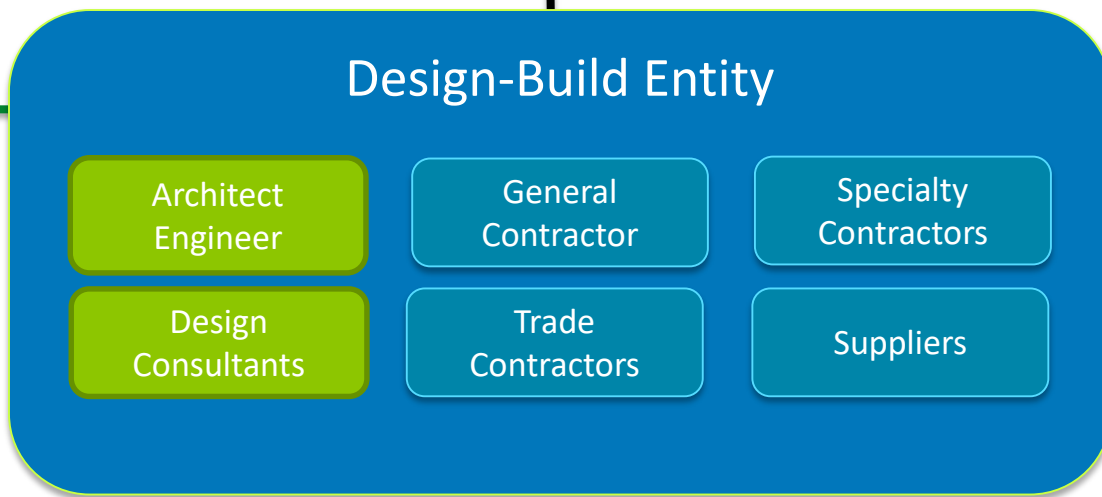
# Construction Manager at Risk (CMAR)

Typical Point of Engagement



# Design-Build Project Delivery

Typical Point of Engagement

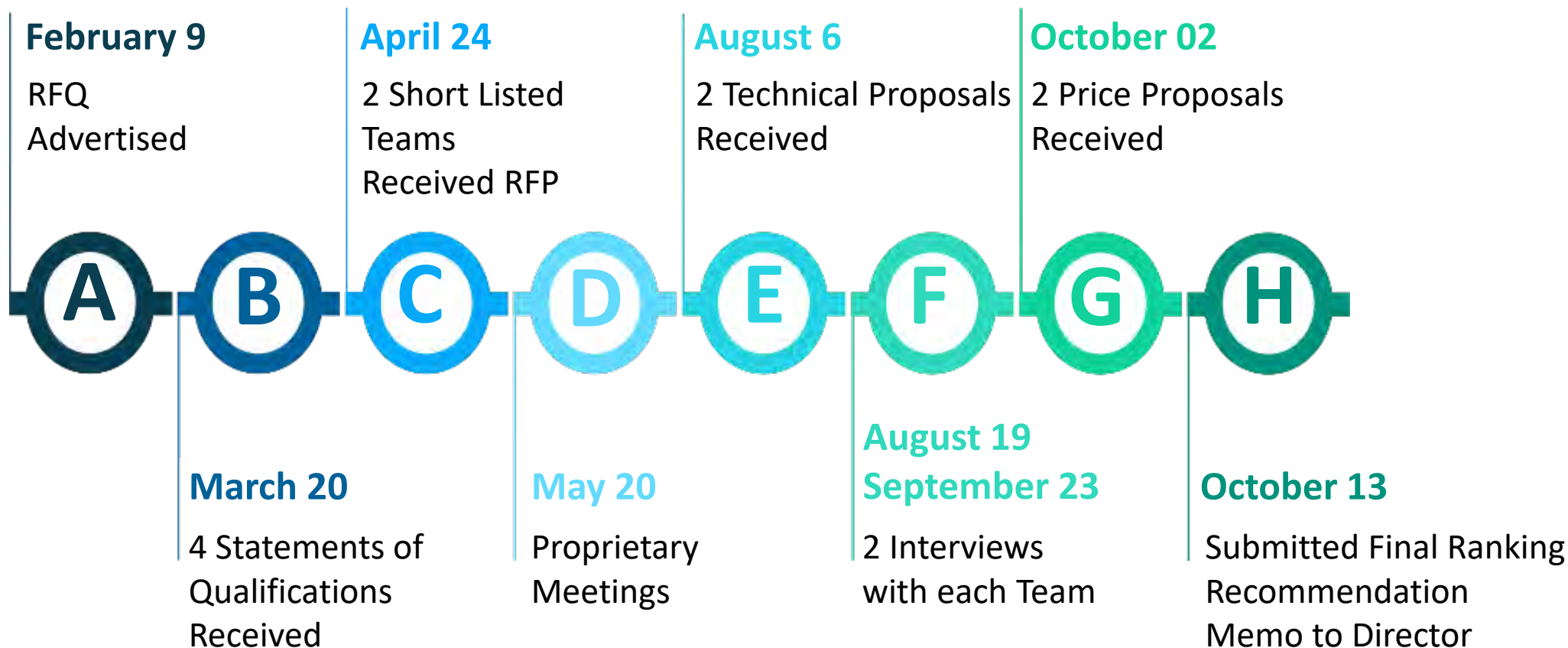


\$\$\$  
Lump Sum  
Contract Cost  
Limit (CCL),  
Stipulated Price  
later

## Why Deliver James River SWIFT as Design-Build?

1. Shortened schedule by overlapping the design and construction phases.
2. A single point of accountability (Design-Builder) for this large and complex project.
3. Selection based on best value qualifications (20%), technical approach (40%) and price (40%) rather than just low price (100%).
4. Greatest potential for flexibility in delivering first full-scale SWIFT facility.

# James River Design Build Procurement Timeline



2020

**James River Design Build is a complex, high value project that attracted national firms.**

- **Balfour Beatty with Arcadis**
- **Garney with Tetra Tech**
- **Kiewit Infrastructure South Co. with Brown and Caldwell**
- **Ulliman Schutte-Alberici Joint Venture with HDR and Black & Veatch**

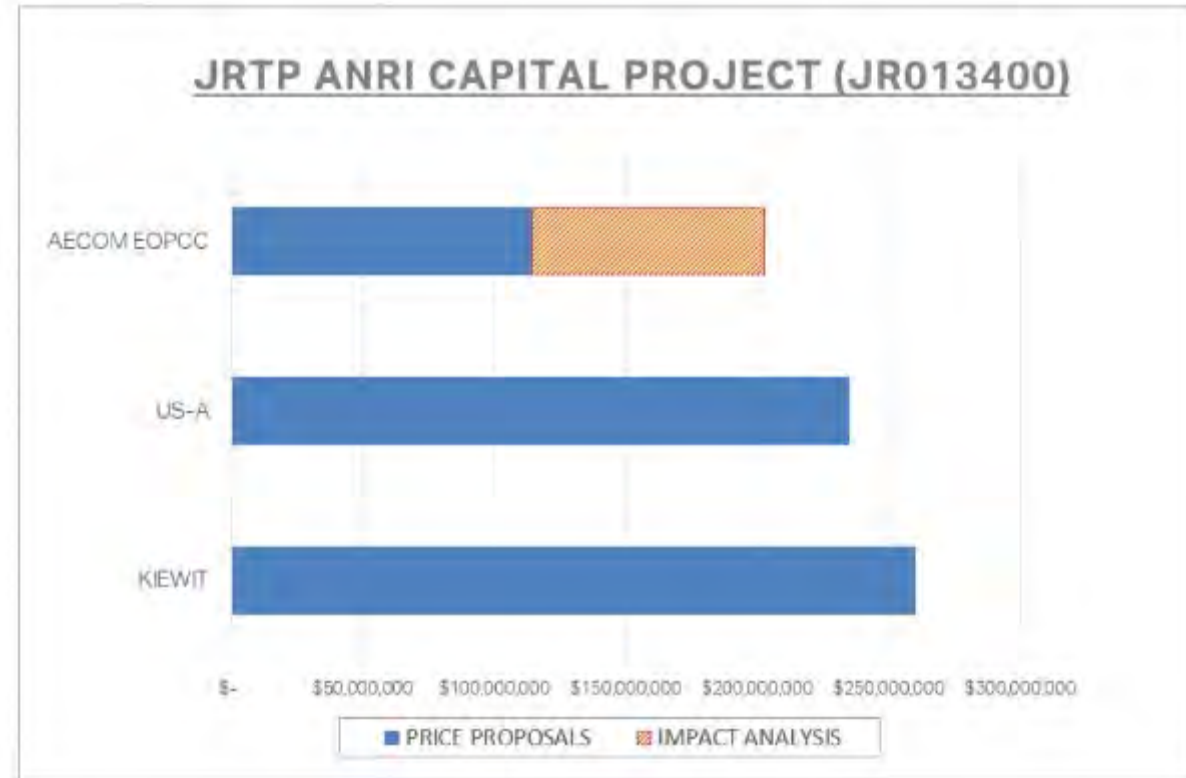
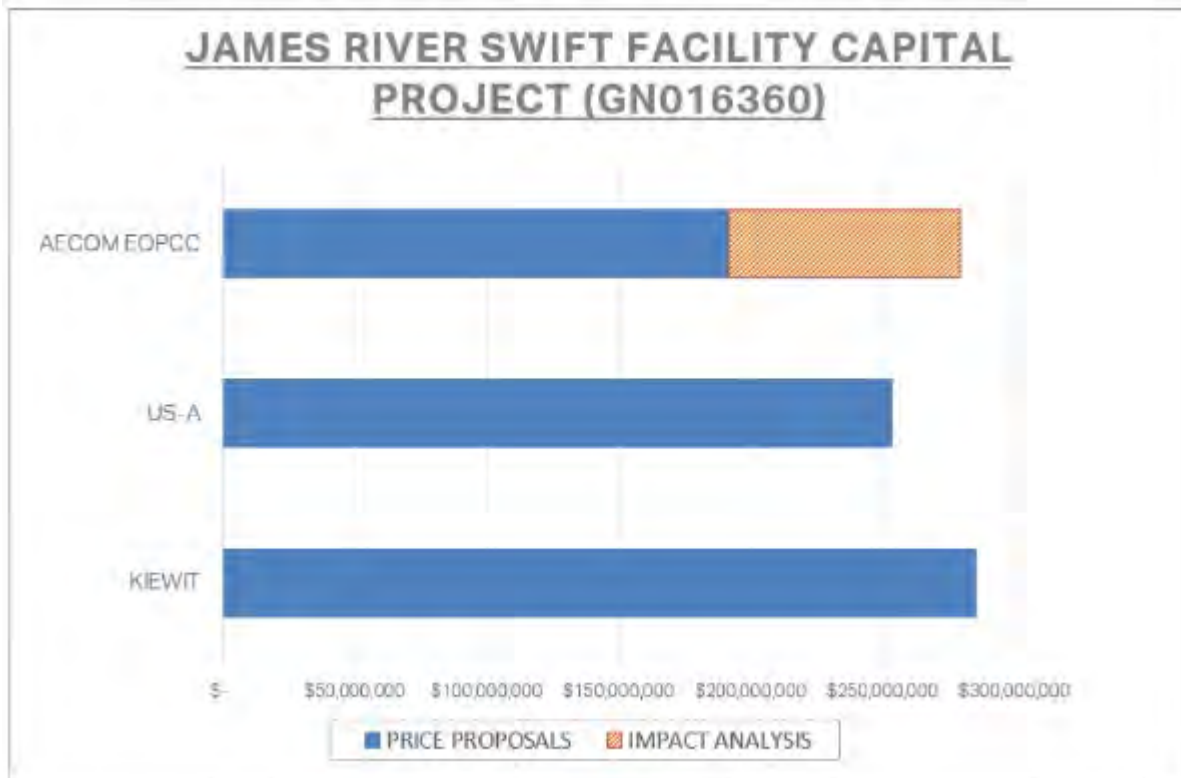


# Final Ranking Summary

Proposing Team	Qualifications	Technical Proposal	Price Proposal	Total Points	Selection Ranking
Ulliman Schutte – Alberici JV	16.58	32.28	40.00	88.86	1
Kiewit Infrastructure South Co.	16.57	32.54	35.80	84.91	2
	20%	40%	40%		

	Kiewit Infrastructure	Ulliman Schutte - Alberici JV	Engineering's Estimate
Price Proposal	\$545,365,333	\$488,139,519	<b>\$310,000,000</b>
Alternatives Proposed	<b>-\$32M</b>	<b>+\$3M</b>	

# AECOM Forensic Estimate Review

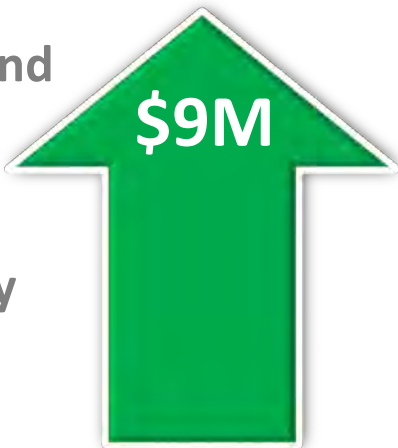


# Breakdown of Forensic Impact Analysis

## Schedule Review

Crew Size and Duration  
+ \$7.5 million

Productivity  
+ \$1.5 million



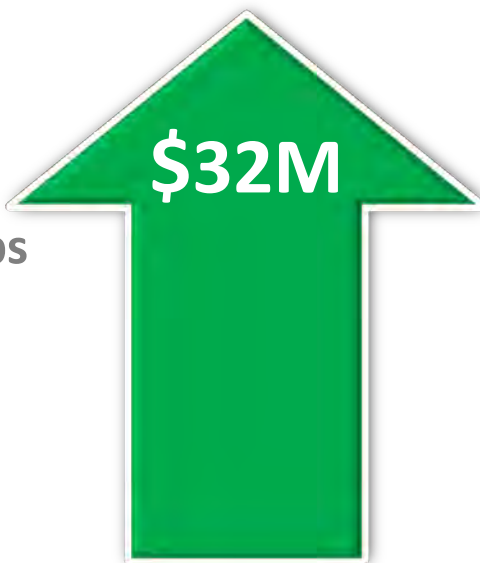
## Estimate Review

Labor Rates  
+\$6.5 million

Escalations and Markups  
+ \$13.3 million

Phasing  
+\$4 million

Design Contingency  
+ \$8.4 million



## Market Analysis

COVID-19 Impacts  
+ \$8.7 million

Competition & Bid Environment  
+ \$37.8 million

Input Costs (Labor Costs, Labor Activity, Material Costs)  
+ \$18.9 million



# Key On-Site Challenges

## Site Logistics:

HRSD Safety and Security

Access/Egress

Parking

Laydown

## Deliveries/Hauling

Chemicals

Biosolids

Deliveries

## Plant Performance:

Meeting Permit

Maintaining Operations

Shutdowns

Maintenance

## Interfaces

Recharge Wells Drillers and other contractors



# Key Off-Site Challenges

Multi-year phased coordination with the City of Newport News

## Near JRTP

Park facility access (gym, dog park, visitor center, trails)

Shoreline rehabilitation

Trail construction

## Within Park:

Pipeline and well house construction

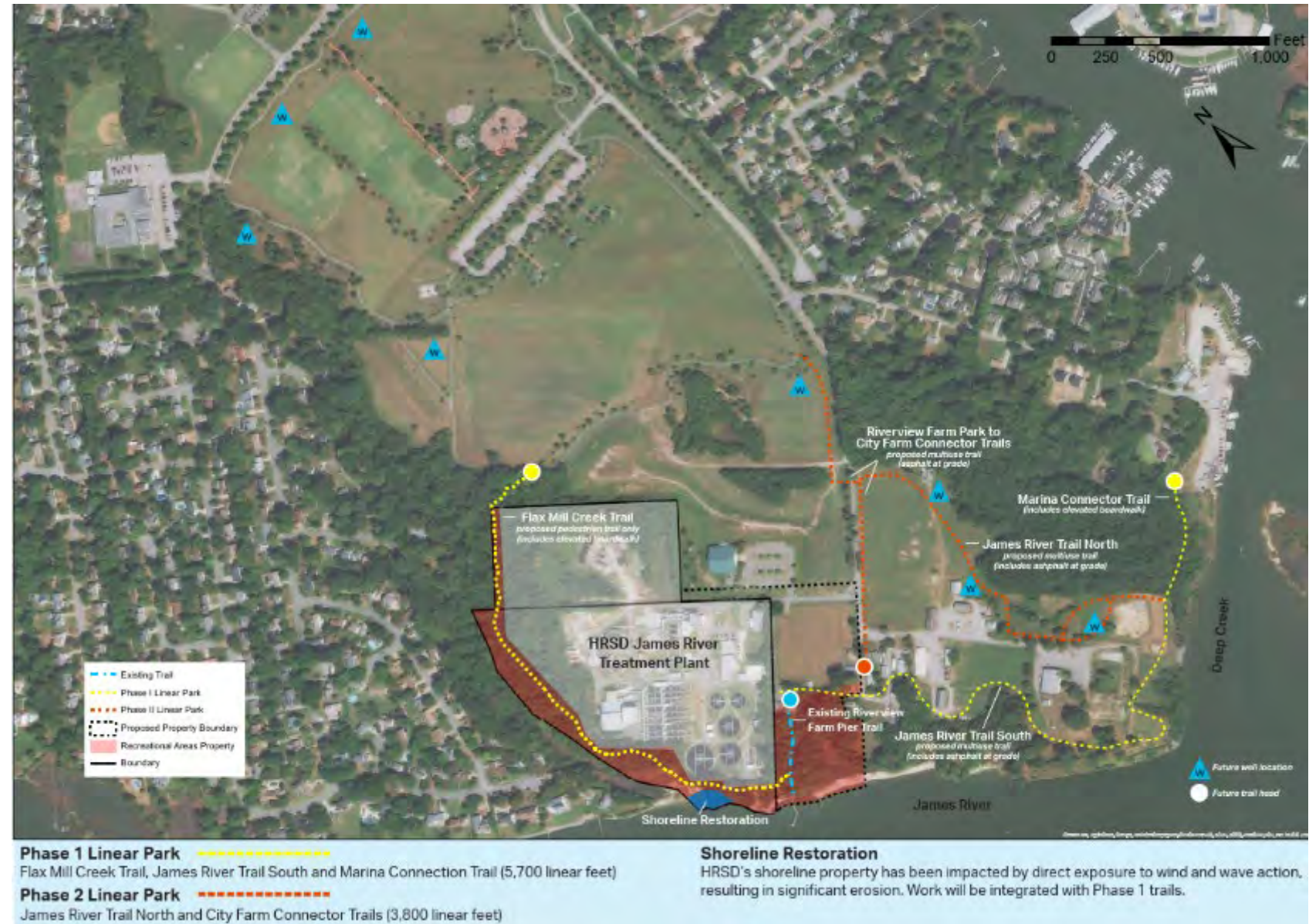
Public space impacts

Access/egress

Security

Public perception

Noise management





# Value Engineering Concepts

## Accepted Alternatives with ≈\$21M CCL credit

### ANRI ALTERNATIVES

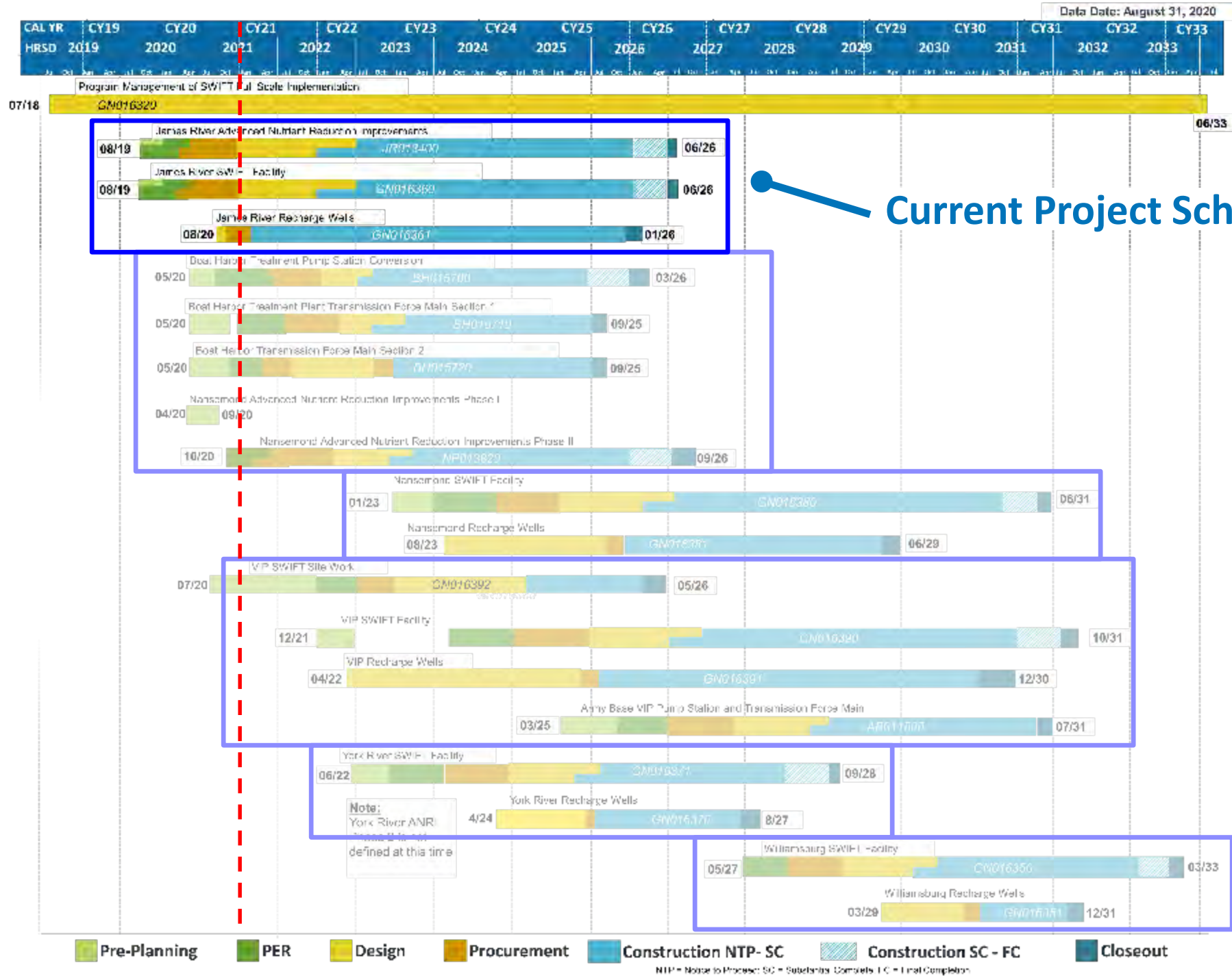
Alt.	Description	Credit
2	Modify Main Electric Building	\$ (1,344,293)
4A	2x New 130' Circular Clarifiers, Retrofit Clarifier #5, relocate MBBR, Larger Lab in Admin Bldg	\$ (18,237,873)

### SWIFT ALTERNATIVES

Alt.	Description	Credit
A4A	SWIFT Related Cost Adjustments associated with ANRI Alternative #4A	\$ 6,926,330
10A	Eliminate Chem Bldg 1 & incorporate Chem facilities into SPB; Canopy over Floc/Sed	\$ (5,905,995)
11A	Replace Superstructure at Bio Filters w/canopy	\$ (107,921)
12A	UV Equipment Change with reduced building footprint; eliminate considerations for future AOP	\$ (2,741,020)

- **Delay or Possibly Cancel James River project**
- **Cancel Design-Build and Shift to Design-Bid-Build**
- **Award partial Design-Build of wastewater project only**
- **Award total proposed Design-Build comprehensive agreement**

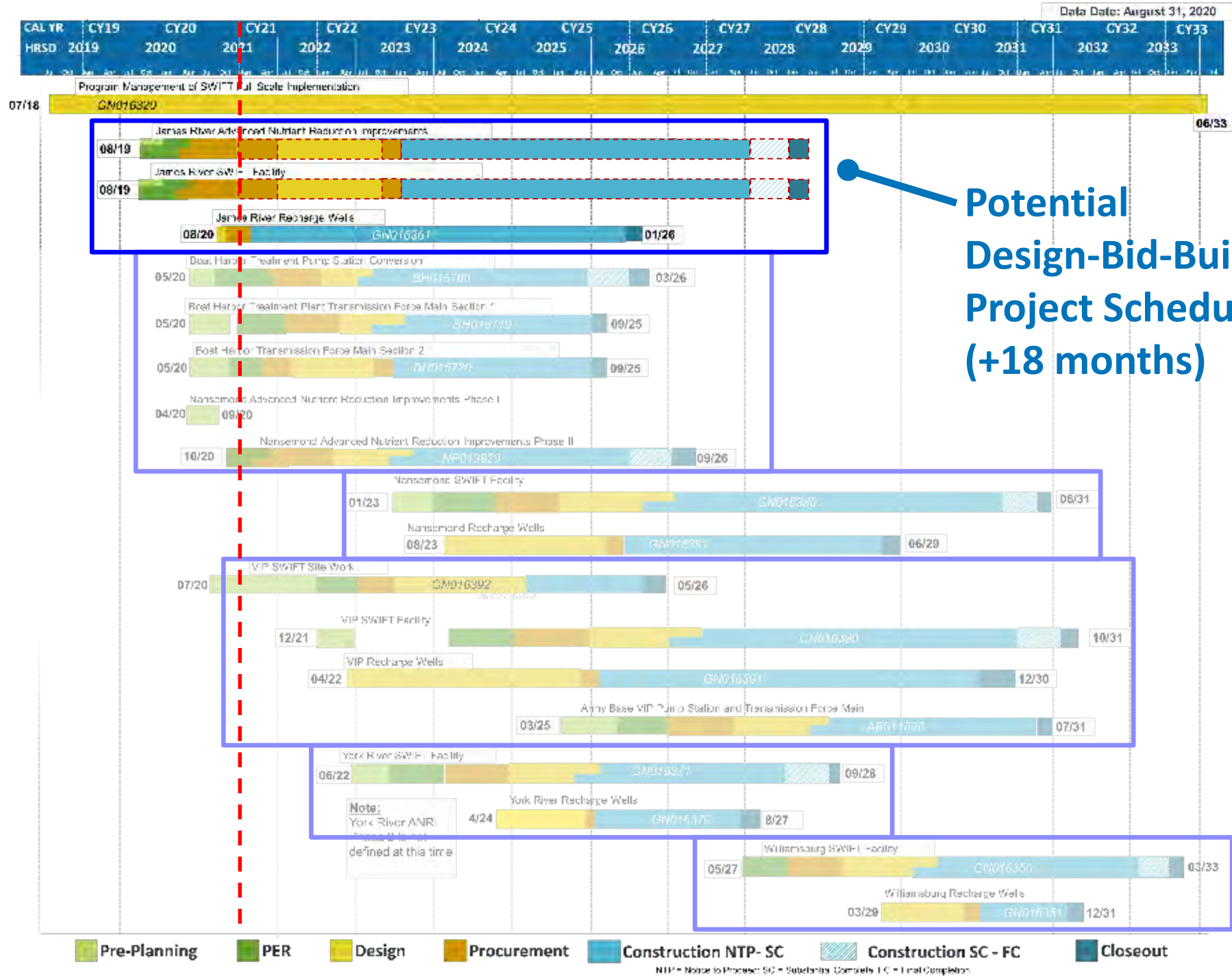
# Overall SWIFT Program Schedule



Current Project Schedule

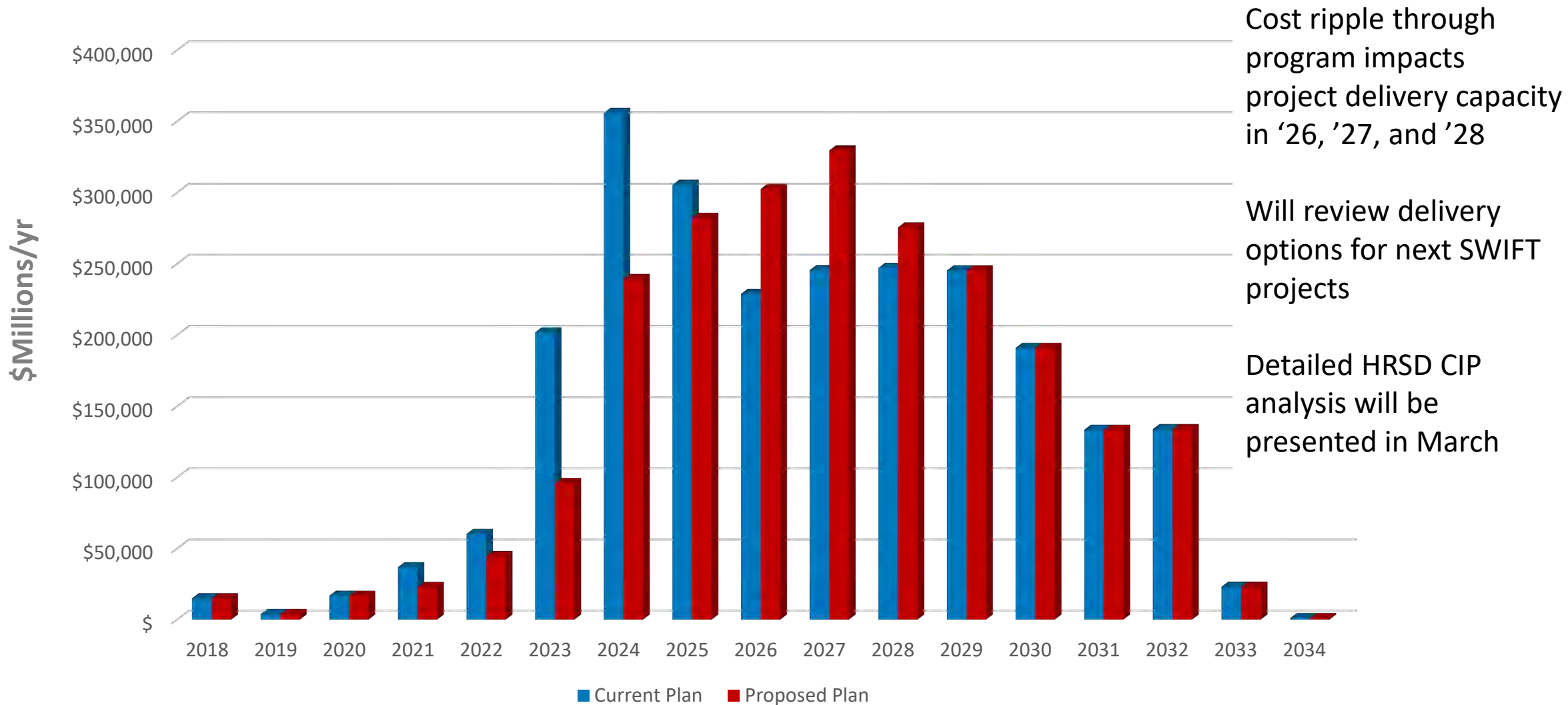


# Overall SWIFT Program Schedule





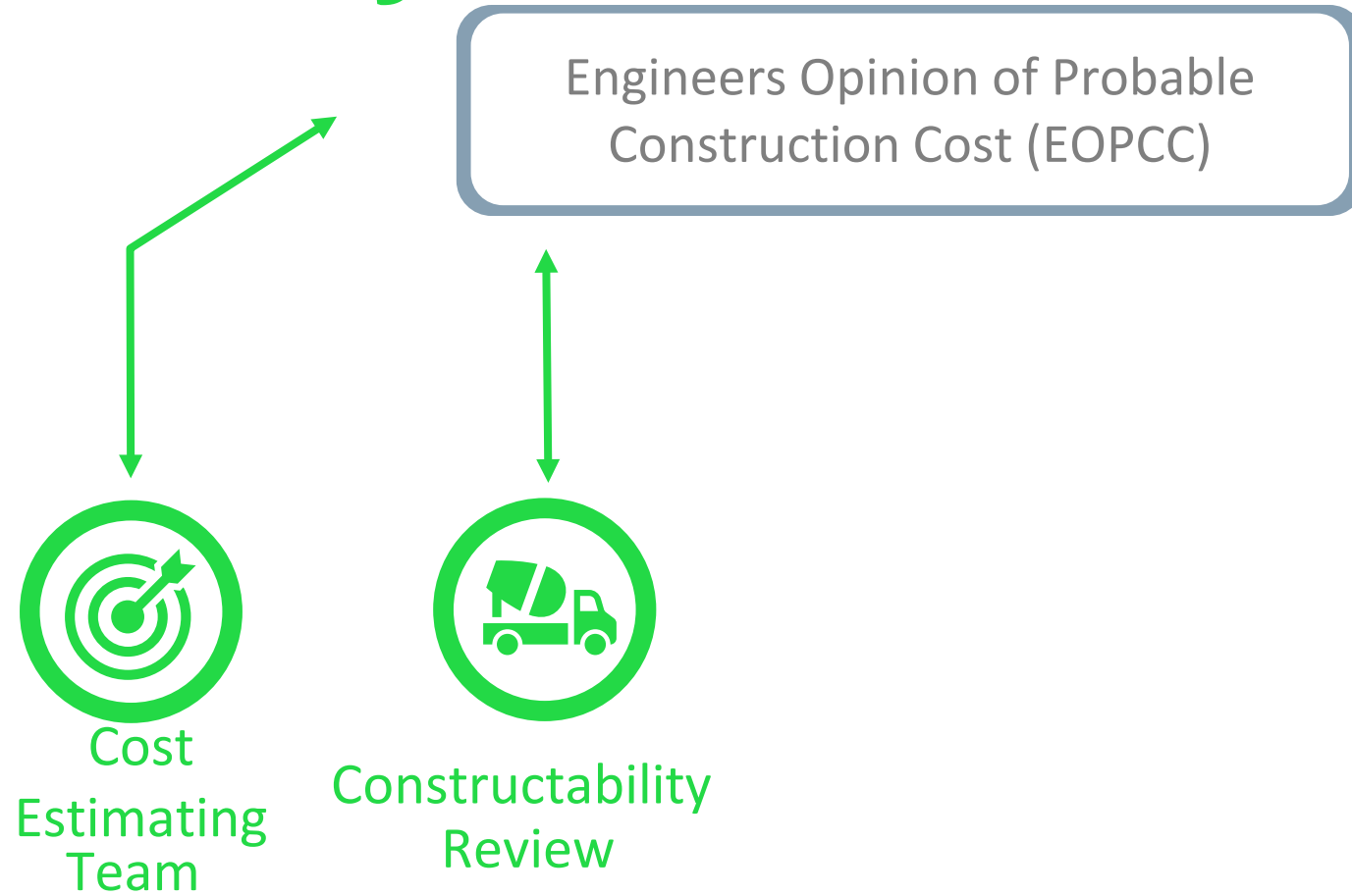
# Impact of 18-month delay to SWIFT Capital Program



- a. **Appropriate additional funding in the amount of \$88,367,184 to the James River SWIFT Facility project (GN016360).**
- b. **Appropriate additional funding in the amount of \$37,288,106 to the James River Treatment Plant Advanced Nutrient Reduction Improvements project (JR013400).**
- c. **Approve a comprehensive agreement with Ulliman Schutte-Alberici JV Team (US-A) including a Contract Cost Limit (CCL) of \$468,073,039.**
- d. **Approve proposal compensation to Kiewit Infrastructure South Co. in the amount of \$310,000.**

# SWIFT Program Management Team – Cost Estimating Approach

## Previously





HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #6

Agenda Item 10. Little Creek Pump Station Modifications Agreement

**AGREEMENT FOR THE  
HAMPTON ROADS SANITATION DISTRICT  
PROJECT #CE011830  
LITTLE CREEK PUMP STATIONS MODIFICATIONS**

**BETWEEN**

**HAMPTON ROADS SANITATION DISTRICT**

**AND**

**UNITED STATES OF AMERICA DEPARTMENT OF THE NAVY  
JOINT EXPEDITIONARY BASE LITTLE CREEK FORT STORY**

THIS AGREEMENT ("Agreement"), by and between the UNITED STATES OF AMERICA, DEPARTMENT OF THE NAVY ("GOVERNMENT") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this 18th day of December, 2020 (the "Effective Date").

**RECITALS**

**R:1.** The GOVERNMENT and HRSD executed Contract N62470-70-C-0716, under which HRSD currently provides sewage disposal services to the GOVERNMENT at various locations, including Joint Expeditionary Base Little Creek Fort Story (JEBLCFS); and

**R:2.** HRSD is planning to decommission its Chesapeake-Elizabeth Wastewater Treatment Plant (CEWTP), which currently serves JEBLCFS and other customers, and will divert the flow to other HRSD Treatment Plants; and

**R:3.** The diversion of flow will change the pressure conditions under which the GOVERNMENT terminal pump stations operate; and

**R:4.** HRSD has evaluated the pump stations at JEBLCFS, and the parties agree that terminal station upgrades at JEBLCFS Pump Station 751 are necessary, due to the decommissioning of the CEWTP; and

**R:5.** HRSD and the GOVERNMENT agree that without such upgrades at JEBLCFS Pump Station 751, HRSD will not be able to provide the continuity or quality of service as currently provided; and

**R:6.** In response, HRSD is implementing the LITTLE CREEK PUMP STATIONS MODIFICATIONS (PROJECT #CE011830), as shown on **Exhibit 1** (the "Improvements"); and

**R:7.** HRSD and the GOVERNMENT hereby agree that it is in the best interest of the parties to have the Improvements designed and constructed by HRSD, with costs addressed herein; and

**R:8.** HRSD agrees to administer the design and construction of the Improvements in accordance with the plans and specifications approved by the parties.



## TERMS

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

### I. DESIGN OF IMPROVEMENTS

#### A. Plans and Specifications

1. HRSD has employed KIMLEY-HORN AND ASSOCIATES ("ENGINEER"), to prepare plans and specifications for the Improvements. A location map of the Improvements is shown on Exhibit 1.
2. ENGINEER, along with HRSD and the GOVERNMENT, will meet to coordinate, review, and approve a set of final construction documents (the "Final Plans and Specifications") for the Improvements.

#### B. Payment of the Design Costs

1. HRSD will compensate the ENGINEER for all engineering design costs and any amendments related to the Improvements. Pursuant to HRSD's agreement with ENGINEER, the current estimated design cost for the Improvements is \$150,690.

#### C. Compliance

1. All design work shall comply with HRSD Standards and Preferences for use in Engineered Construction Projects, latest edition, and the Hampton Roads Planning District Commission Regional Construction Standards, latest edition, along with any applicable state and Federal law and regulation. Any changes to the Final Plans and Specifications shall be approved by HRSD and the GOVERNMENT.

### II. CONSTRUCTION OF IMPROVEMENTS

#### A. Cost of Construction

1. The total cost of the Improvements, as more particularly defined by the Final Plans and Specifications, prepared by the ENGINEER for HRSD and the GOVERNMENT (the "Improvement Costs") shall include:

- a. Cost of construction of the Improvements;
  - b. Cost of approvals and permits required for the construction of the Improvements;
  - c. Costs for construction contract administration and inspection;
  - d. Costs of services rendered by ENGINEER;
  - e. Any related miscellaneous essential expenses.
2. The current estimated Improvement Costs are \$260,000.

**B. Approval of Final Plans and Specifications; Contractor; Change Orders**

1. HRSD and the GOVERNMENT agree that before any construction work is to begin under this Agreement, HRSD and the GOVERNMENT will jointly review and approve the Final Plans and Specifications. This approval shall be in writing.
2. The GOVERNMENT shall acquire all necessary plan approvals related to the Improvements prior to HRSD awarding the construction contract.
3. The construction contractor ("Contractor") shall be responsible for all necessary permits and approvals required for the Improvements.
4. HRSD and the GOVERNMENT will jointly review and approve shop drawings related to the Improvements.
5. HRSD and the GOVERNMENT will jointly review and approve the scope of work, and HRSD will review and approve the fee for the construction contract administration and inspections related to the Improvements.
6. HRSD, in conjunction with the GOVERNMENT, will review and approve any change order related to the Improvements ("Change Order").

C. Payment of Improvement Costs

1. Payment for the Improvement Costs shall be as follows:
  - a. HRSD will administer and be responsible for bearing one hundred percent (100%) of the Improvement Costs.
  - b. The GOVERNMENT will be responsible for bearing zero percent (0%) of the Improvement Costs.
  - c. HRSD shall be solely responsible for costs associated with any Change Orders.

D. Operation and Maintenance of the Improvements after Construction

1. The GOVERNMENT shall be responsible for operation and maintenance of the Improvements after construction. During construction, the GOVERNMENT shall be responsible for operation and maintenance of the portion of JEBLCFS Pump Station 751 not considered part of the Improvements.
2. All of the Improvements shall be owned by the GOVERNMENT.

III. SCHEDULE

The construction of the Improvements is anticipated to begin by December 28, 2020 and be completed by May 27, 2021. Completion of the Improvements shall occur prior to the decommissioning of the CEWTP.

IV. ADDITIONAL OBLIGATIONS OF HRSD AND THE GOVERNMENT

A. Public Hearing or Meeting

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

B. Procuring of the Improvements

1. HRSD is using its existing contractual services to propose a cost and schedule for construction of the Improvements. The GOVERNMENT agrees to provide administrative support during the proposal phase. In particular, the GOVERNMENT shall:
  - a. Attend the scoping meeting.
  - b. Provide timely responses to the ENGINEER for any questions, requests for clarification, or addenda during the proposal phase.
  - c. Provide miscellaneous support to HRSD as required during the proposal phase.
2. HRSD will receive a proposal for construction of the Improvements. The proposal will be reviewed and approved by the GOVERNMENT and HRSD prior to award of the task order.

C. Administration

HRSD shall provide contract administration of the construction contract for the Improvements. The GOVERNMENT shall not seek reimbursement for ancillary contract administration for said construction contract between HRSD and the Contractor.

D. Inspection

HRSD shall provide full-time inspection for the Improvements. The inspector(s) shall have the authority to assure the Improvements are constructed in accordance with the Final Plans and Specifications, along with any applicable state and Federal law and regulation. The GOVERNMENT may provide ancillary inspections but shall not seek reimbursement for such inspections.

E. Correction of Construction Defects in the Improvements

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

F. Construction Record Drawings

ENGINEER shall provide HRSD and the GOVERNMENT approved construction record drawings in accordance with HRSD Standards and Preferences for use in Engineered Construction Projects and the project Specifications, along with any applicable state and Federal law and regulation.

G. Access to Site

The GOVERNMENT shall provide access to HRSD, the ENGINEER, and the Contractor to allow for the design and construction of the Improvements. HRSD and their Engineers/Contractors shall follow all requirements for access, security and related safety procedures.

V. TERMINATION

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

VI. 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) e-mail, with return receipt requested, and addressed to the following:

For: HRSD

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

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

With Copy to:

Jan Anderson  
Kellam, Pickrell, Cox & Anderson PC  
403 Boush Street, Suite 300  
Norfolk, VA 23510  
E-mail: janderson@kpct.com

For: GOVERNMENT

Evan Jones, Mechanical Utility Engineer  
NAVFAC Mid-Atlantic  
1450 Gator Blvd, Virginia Beach, VA 23460  
Building 3165  
Telephone: (757) 462-5382  
E-mail: evan.b.jones@navy.mil

With Copy to:

Alanna Whybrew, Office of Counsel  
NAVFAC Mid-Atlantic  
9324 Virginia Avenue, Room 303  
Norfolk, VA 23511  
Telephone: (757) 341-2401  
E-mail: alanna.whybrew@navy.mil

VII. ASSIGNMENT

No party may assign its rights in 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, or their authorized representatives, to this Agreement.

IX. SEVERABILITY

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

X. DAMAGES

HRSD shall indemnify the GOVERNMENT for damages caused by any of the following: (i) omission that constitutes negligence or willful misconduct; (ii) failure to abide by engineering standards; (iii) failure to abide by the Final Plans and Specifications described herein; and/or (iv) any damage caused by the Contractor. HRSD shall retain its rights under sovereign immunity for anything not explicitly detailed within this Section.

XI. INSURANCE

HRSD and the GOVERNMENT have the right to review and approve insurance coverage in the various insurance categories that HRSD and the GOVERNMENT deem necessary to be carried by the Contractor. The GOVERNMENT and HRSD shall be named as additional insureds. Proof of insurance shall be provided at the request of HRSD or the GOVERNMENT, and the insurance coverage shall be maintained by the Contractor during the term of this Agreement. Such terms shall be incorporated into the construction contract with the Contractor.

XII. TERM OF AGREEMENT

The term of this Agreement will commence on the Effective Date of this Agreement, and shall be completed when each party has completely performed its obligations hereunder. As noted above, completion of the Improvements shall occur prior to the decommissioning of the CEWTP.

XIII. FORCE MAJEURE

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

XIV. SUBCONTRACTOR OR INDEPENDENT CONTRACTOR

If the Contractor hires subcontractors, consultants, independent contractors, or other such entities, HRSD and the GOVERNMENT have the right to approve them by reviewing their requisite experience and knowledge to complete the work

assigned. Such terms shall be incorporated into the construction contract with the Contractor.

XV. 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, regulation, ordinance or otherwise.

XVI. INTEGRATION

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

***Signature pages follow***



**IN WITNESS WHEREOF**, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on January 26, 2021.

**HAMPTON ROADS SANITATION DISTRICT**

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

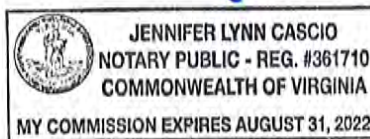
COMMONWEALTH OF VIRGINIA,  
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Agreement was acknowledged before me this 26<sup>th</sup> day of January, 2021, by Edward G. Henifin, HRSD General Manager.

  
Notary Public

My commission expires:

Registration No.:



**FOR THE GOVERNMENT**

ARELLANO.HECTOR, Digitally signed by  
ARMANDO.JR.11285 ARELLANO.HECTOR.ARMANDO.J  
31161 R.1128531161  
Date: 2020.12.19 08:51:26 -05'00'

Hector A. Arellano  
Deputy Public Works Officer  
Public Works Department  
Joint Expeditionary Base Little Creek Fort Story  
Naval Facilities Engineering Systems Command, Mid-Atlantic

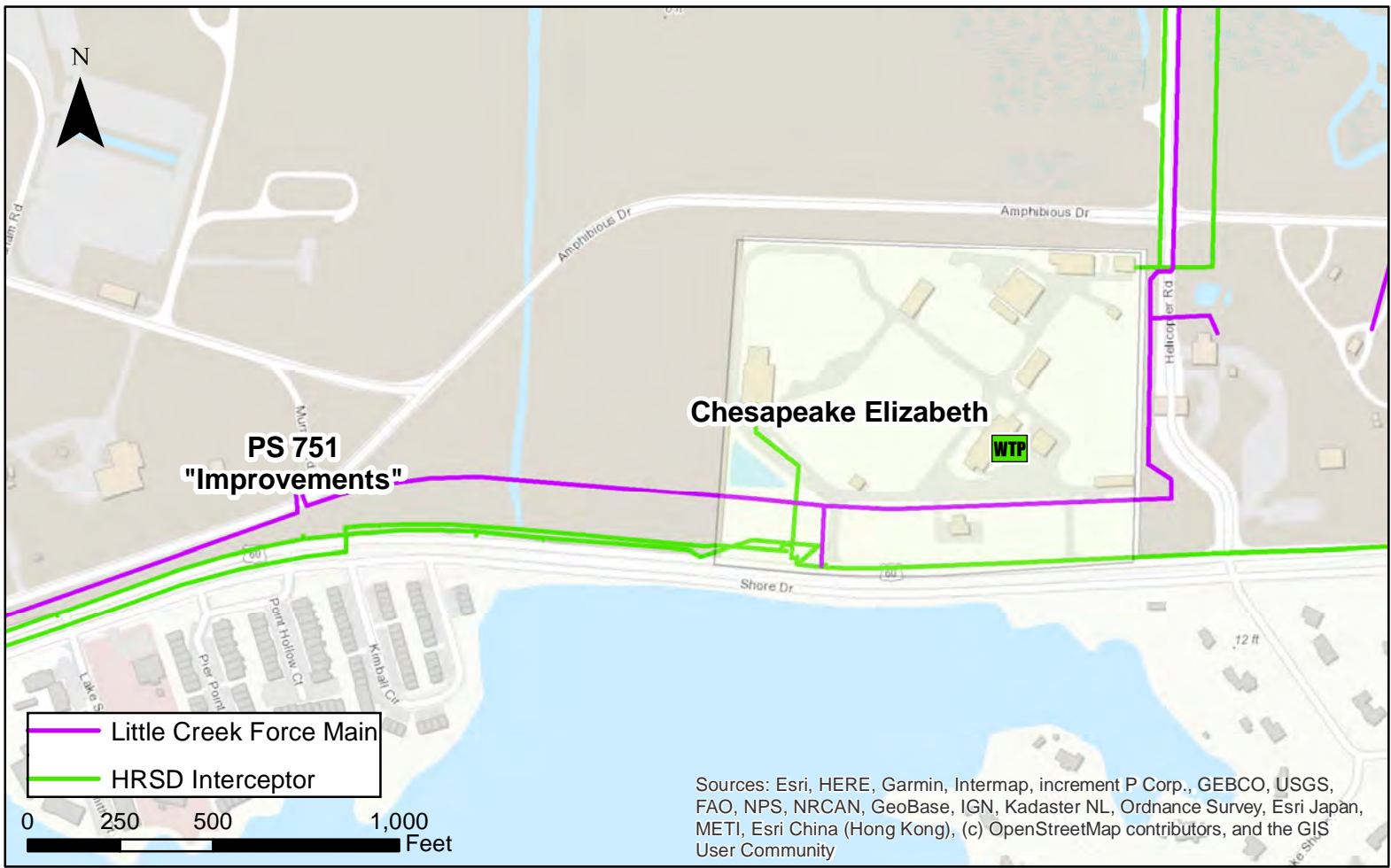


Exhibit 1

HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #7

Agenda Item 13, 14, 15 – Middlesex Map



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

**Legend**

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

0 2,950 5,900 11,800 17,700 23,600 Feet

# MP013730

## Middlesex Interceptor System Program Phase II - Transmission Force Main

**CIP Location**

HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #8

Agenda Item 17. Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition

- [Agreement](#)
- [Deed](#)
- [Plat](#)
- [Map](#)

**AGREEMENT**

**THIS AGREEMENT**, made this 24<sup>th</sup> day of November 2020, by and between **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 (the “Grantee”), and **JWL INVESTMENTS, LLC, a Virginia limited liability company**, whose mailing address is 200 Commerce Street, Smithfield, Virginia 23430 (“Landowner”). Collectively, Buyer and Seller shall be referred to as the “Parties.”

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

The land and improvements subject to this Utility Easement Agreement (hereinafter referred to as the "Easement") is described as follows:

Being as shown on the attached plat prepared by W. M. Naulty, Surveyor, 4701 Owens Way, Suite 900 Prince George, Virginia 23875 entitled “PLAT SHOWING EASEMENT TO BE ACQUIRED FROM JWL INVESTMENTS, LLC” and dated July 28, 2020 and containing 35,776 SQ. FT. (0.821 acres), more or less land for the proposed HRSD permanent utility easement and containing 31,458 SQ. FT. (0.722 acres), more or less land for the proposed HRSD temporary construction easement; and being part of the same property conveyed to JWL Investment, LLC, a Virginia limited liability company by Joseph W. Luter, III, by Deed dated October 25, 2007 and recorded in the County of Isle of Wight Clerk's Office in Instrument Number 078317.

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

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

**CONSIDERATION: THIRTY THREE THOUSAND THREE HUNDRED THIRTY-EIGHT DOLLARS AND 87/100 DOLLARS (\$33,338.87)** in full for the easement described hereinbefore and for all damages, if any.

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

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

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

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

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

HRSD or its contractor hereby agrees that it will perform all such measures in a manner causing as little inconvenience and disruption to the Landowner, and Landowner's invitees, licensees and occupants as is reasonably possible. Plans for the Easement have been explained to the Landowner, and Grantee warrants that it will not construct above ground pumping station facilities within the easement area.

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

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

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

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



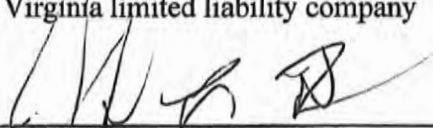
Agreement – Tax Map# 13-01-048A, County of Isle of Wight, VA Between HRSD and JWL Investments, LLC

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

WITNESS the following signatures and seals:

**SELLER:**


**JWL INVESTMENTS, LLC**  
A Virginia limited liability company

  
\_\_\_\_\_  
Joseph W. Luter, IV, Manager

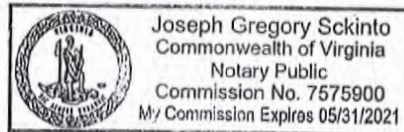
STATE OF Virginia  
COUNTY OF Isle of Wight, to-wit:

I, Joseph G. Skinto, a Notary Public in and for the County of Isle of Wight, in the State of Virginia, whose term of office expires on 5/31/2021, do hereby certify that Joseph W. Luter, IV, Manager of JWL Investments, LLC, Seller herein, whose name is signed to the foregoing Utility Easement Agreement, has acknowledged the same before me in my County and State aforesaid.

Given under my hand this 24<sup>th</sup> day of November, 2020.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 5/31/2021  
Registration Number: 7575900



**PROJECT PARCEL NO. 122**  
**PROPERTY OF: JWLL INVESTMENT, LLC**  
**PROPERTY ADDRESS: N CHURCH STREET**  
**OWNER ADDRESS: 200 COMMERCE STREET**  
**SMITHFIELD, VA 23430**  
**PIN: 13-01-048A**

**AREA TABLE**

20' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.821 ACRES 35,776 SQUARE FOOT
TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.722 ACRES 31,458 SQUARE FOOT

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S12°52'47"E	6.28'
L2	N78°45'36"E	14.25'
L3	S5°37'11"E	43.86'
L4	S0°26'09"E	71.40'
L5	S29°38'32"W	38.38'
L6	S18°07'24"W	11.07'
L7	N18°07'24"E	16.57'
L8	N29°38'32"E	36.21'
L9	N0°26'09"W	63.38'
L10	N5°37'11"W	41.65'
L11	S76°45'36"W	14.33'
L12	N12°52'47"W	29.28'
L13	N82°01'58"W	4.22'

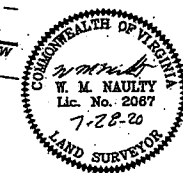
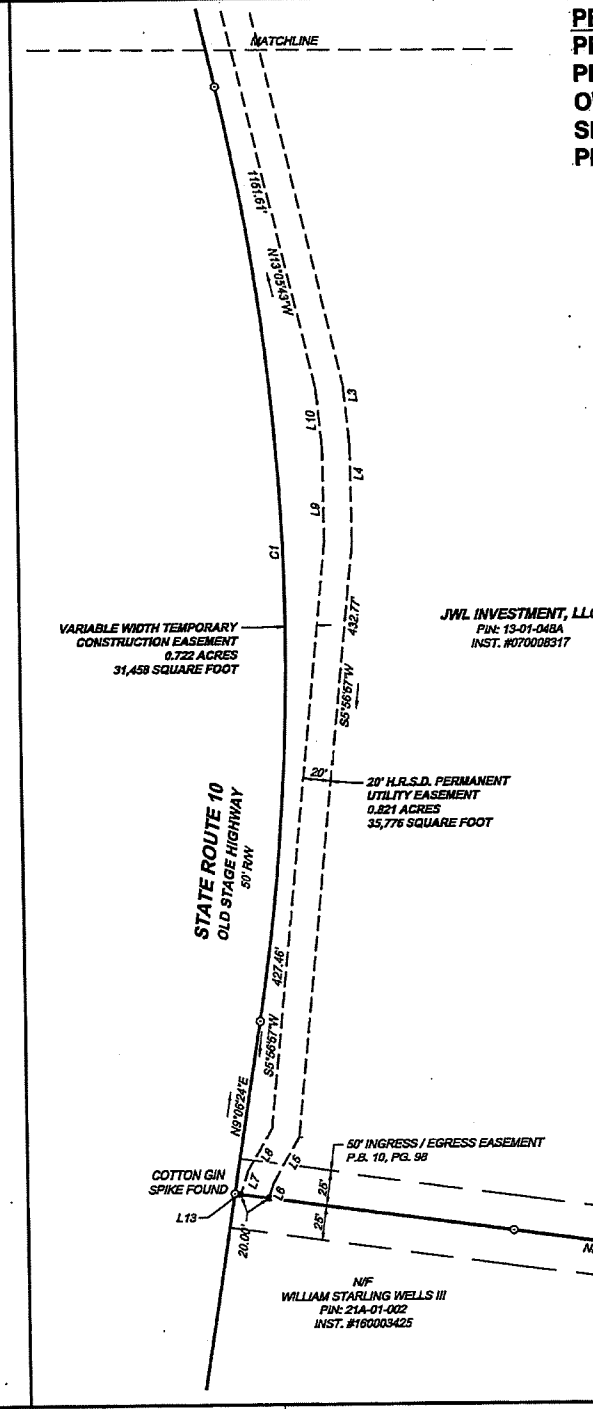
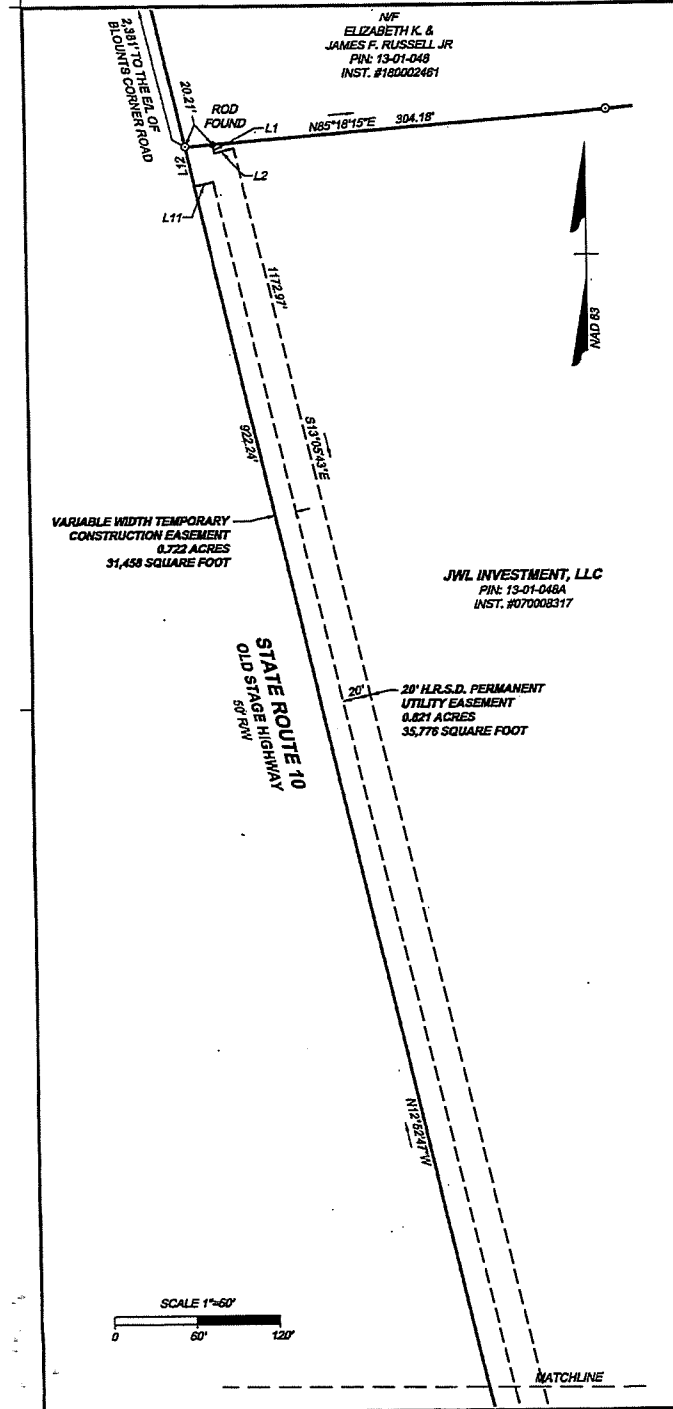
**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING	CHORD
C1	1777.02'	681.90'	345.20'	21°59'11"	N1°53'11"W	677.73'

**NOTES:**

1. PROPERTY LINES AND RIGHT OF WAY INFORMATION SHOWN IS BASED ON PLATS, DEEDS OR RECORD AND ACTUAL FILED MEASUREMENTS. ONLY THE BOUNDARIES SHOWN HAVE BEEN SURVEYED FOR THIS PROJECT.
2. THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THIS PROPERTY
3. EASEMENTS SHALL BE ACQUIRED BY DEED.

**REVISION DATE: 01/22/2020**  
**REVISION NUMBER: 1**  
**REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT**



PLAT SHOWING EASEMENT TO BE ACQUIRED FROM  
**JWLL INVESTMENTS, LLC**  
 BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA  
 SCALE 1"=60' JULY 28, 2020  
 JN: 42956-903-13-01-048A  
 W.M. NAULTY, SURVEYOR  
 4701 OWENS WAY, SUITE 900  
 PRINCE GEORGE, VIRGINIA 23875

**AFFIDAVIT OF AUTHORITY**

I, Joseph W. Luter II, first being duly sworn or affirm that the following statements are true to the best of my knowledge, information and belief:

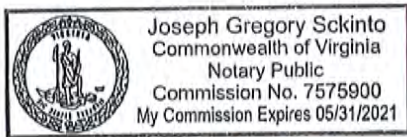
1. That the property, depicted in the attached plan sheet or plat, is owned by: JWL Investments, LLC., a Virginia limited liability company.
2. That I am MANAGER of said company.
3. That I warrant and represent that by virtue of my position I have the full and unrestricted authority to execute all documents binding upon the Business Entity described and to waive or claim any rights to which it may be entitled.

By [Signature] (SEAL)  
Its JWL INVESTMENTS LLC  
Date 11/24/20

STATE OF Virginia

CITY OR COUNTY OF Isle of Wight

The foregoing instrument was duly acknowledged before me this 24<sup>th</sup> day of November, 2020, by Joseph W. Luter II, (Title) \_\_\_\_\_ of JWL Investments, LLC, a Virginia limited liability company. He/She is personally known to me or provided \_\_\_\_\_ As identification.



[Signature]  
(Notary Public)

My Commission expires: 5/31/2021

Notary Registration No: 7575900

## PREPARED BY AND RETURN TO:

HRSD

Attn: Real Estate Department

1434 Air Rail Avenue

Virginia Beach, Virginia 23471-0911

Tax ID: 13-01-048A

**DEED OF EASEMENT**

THIS DEED OF EASEMENT, made this 24<sup>th</sup> day of November, 2020, by and among **JWL INVESTMENTS, LLC, a Virginia limited liability company, GRANTOR**, (whether one or more) and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

**WITNESSETH:**

That for and in consideration of the sum of TEN AND 00/100 (\$10.00) DOLLARS and other good and valuable consideration, receipt of which is hereby acknowledged, **GRANTOR** does hereby grant and convey, all of their right, title and interest, if any, in the following easement, with GENERAL WARRANTY OF TITLE, unto **GRANTEE**, its successors and assigns, forever, the perpetual right, privilege, easement and right-of-way, hereinafter described, for the purpose of laying, erecting, constructing, operating, and maintaining underground wastewater and/or water reuse force mains and/or gravity mains together with above and/or below ground equipment, accessories, and appurtenances thereto, hereinafter called "facilities," and a Temporary Construction Easement which shall cease and terminate upon completion of said improvements and alterations on the lands of the **GRANTOR**, said Permanent Easement and Temporary Easement (the "Easement") being further described as follows:

All that certain permanent utility easement located in the County of Isle of Wight, Virginia, shown and designated as "20' H.R.S.D. PERMANENT UTILITY EASEMENT 0.821 ACRES 35,776 SQUARE FOOT AND A VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT 0.722 ACRES 31,458 SQUARE FOOT", as shown on that certain plat entitled, "PLAT SHOWING EASEMENT TO BE ACQUIRED FROM JWL INVESTMENTS LLC BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA", made by W. M. Naulty, Surveyor, dated JULY 28, 2020, a copy of which plat is attached hereto and made a part hereof, to which reference is here made.

Together with all and singular the buildings and improvements, tenements, hereditaments, rights, privileges and appurtenances thereunto belonging or in anywise appertaining (the "Easement"), which Plat is attached hereto and made a part hereof.

It being part of the property conveyed to JWL Investments, LLC, a Virginia limited liability company by Joseph W. Luter, III, by Deed dated October 25, 2007 and recorded in the County of Isle of Wight Clerk's Office in Instrument Number 078317.

This easement is subject to the following conditions and provisions:

A. The facilities existing or constructed on or under the Easement shall remain the property of **GRANTEE**. **GRANTEE** shall have the right to inspect, rebuild, remove, repair, improve, and make such changes, alterations, additions to or extensions of its facilities within the boundaries of said right of way as are consistent with the purpose expressed herein. All construction, maintenance, equipment and facilities shall comply with all applicable laws, ordinances, codes and regulations.

B. Any disturbance of the premises by the **GRANTEE** or its contractor will be restored by the **GRANTEE** as nearly as practicable. This includes paving, backfilling of trenches, grass, reseeding, and removal of trash or debris.

C. **GRANTEE** shall have the right to trim, cut and remove trees, shrubbery or other obstructions which interfere with or threaten the efficient and safe operation, construction and maintenance of said facilities. All brush, branches, and other debris resulting from any cutting, trimming, or clearing of said right of way shall be removed from lands of **GRANTOR** for disposal.

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

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

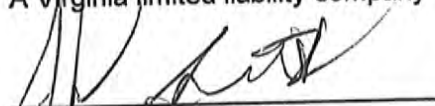
F. It is understood and agreed that the consideration paid to the **GRANTOR** in connection herewith constitutes payment in full for the property hereby conveyed and for damages, if any, to the residue or other property of the **GRANTOR** resulting from the project and use made of the property conveyed.

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

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

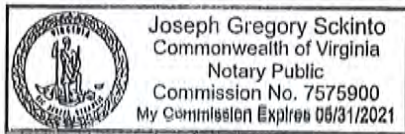
**GRANTOR:**

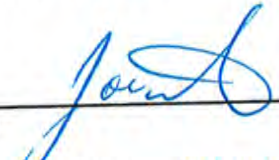
**JWL INVESTMENTS, LLC**  
A Virginia limited liability company

  
\_\_\_\_\_  
Joseph W. Luter, IV, Manager

STATE OF Virginia  
CITY/COUNTY OF Isle of Wight, to-wit:

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of November, 2020, by Joseph W. Luter, IV, Manager of JWL Investments LLC.



  
\_\_\_\_\_  
Notary Public  
My Commission Expires: 5/31/2021  
Registration Number: 7575900

**PROJECT PARCEL NO. 122**  
**PROPERTY OF: JWJ INVESTMENT LLC**  
**PROPERTY ADDRESS: N CHURCH STREET**  
**OWNER ADDRESS: 200 COMMERCE STREET**  
**SMITHFIELD, VA 23430**  
**PIN: 13-01-048A**

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L6	S18°07'24"W	11.07'
L7	N18°07'24"E	16.67'
L8	N29°38'32"E	38.21'
L9	N0°26'09"W	69.38'
L10	N5°37'11"W	41.65'
L11	S78°45'36"W	14.33'
L12	N12°52'47"W	29.28'
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**CURVE TABLE**

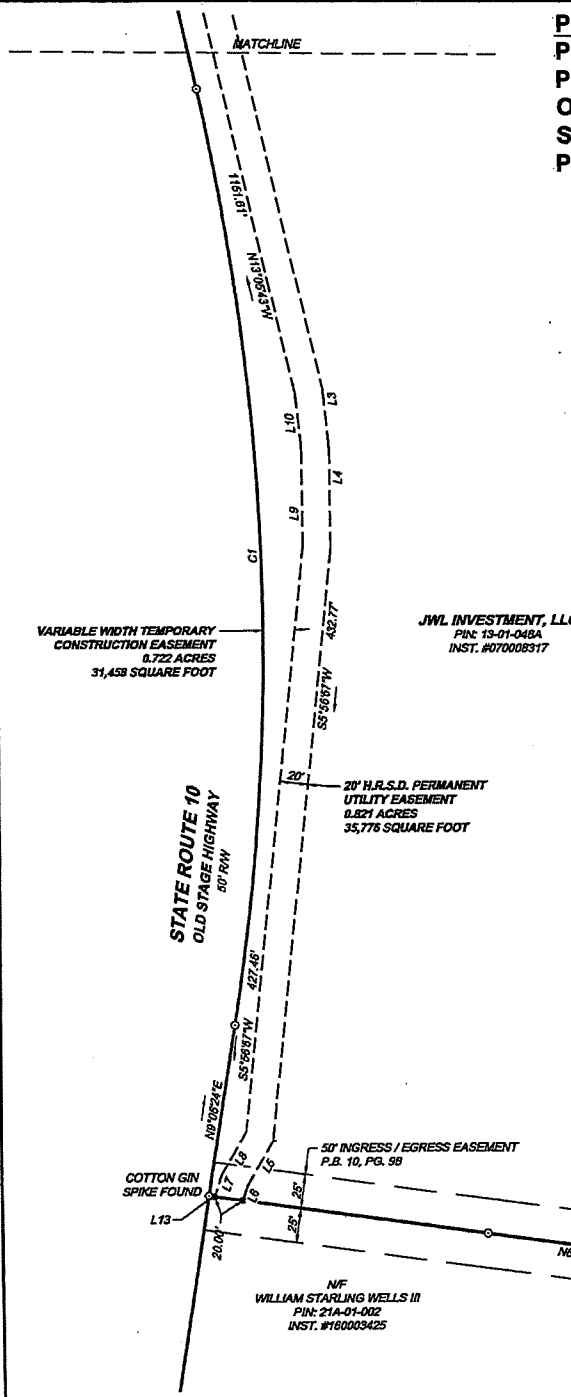
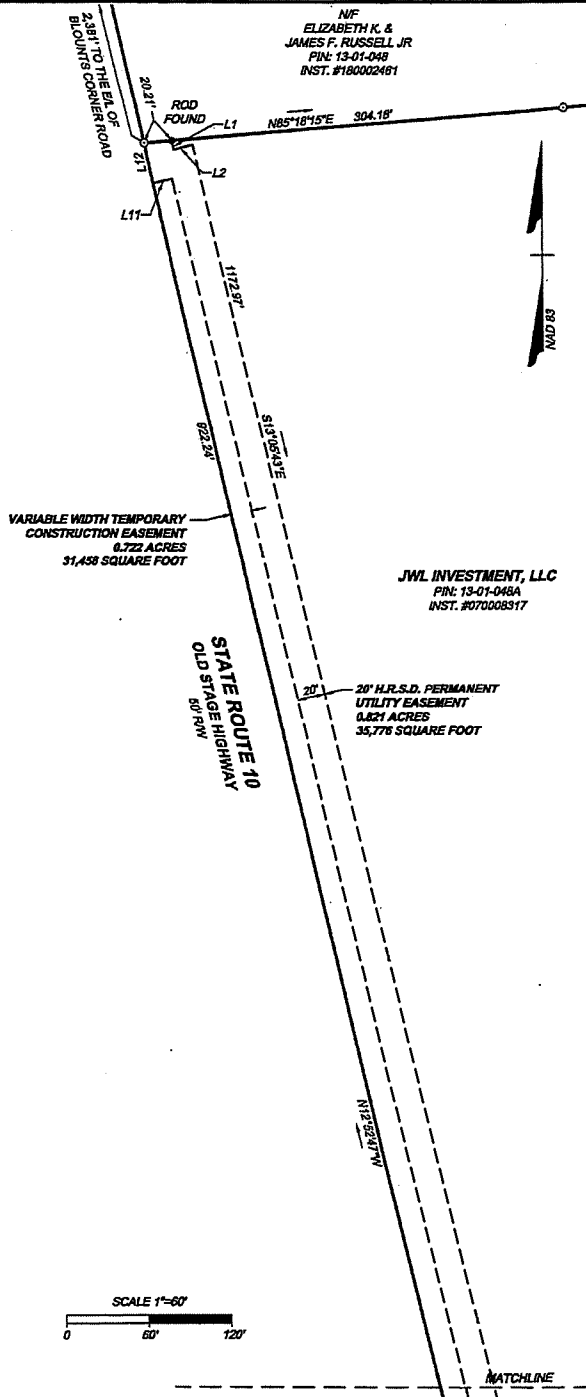
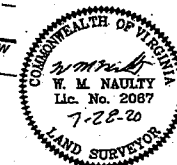
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- EASEMENTS SHALL BE ACQUIRED BY DEED.

**REVISION DATE: 01/22/2020**  
**REVISION NUMBER: 1**  
**REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT**

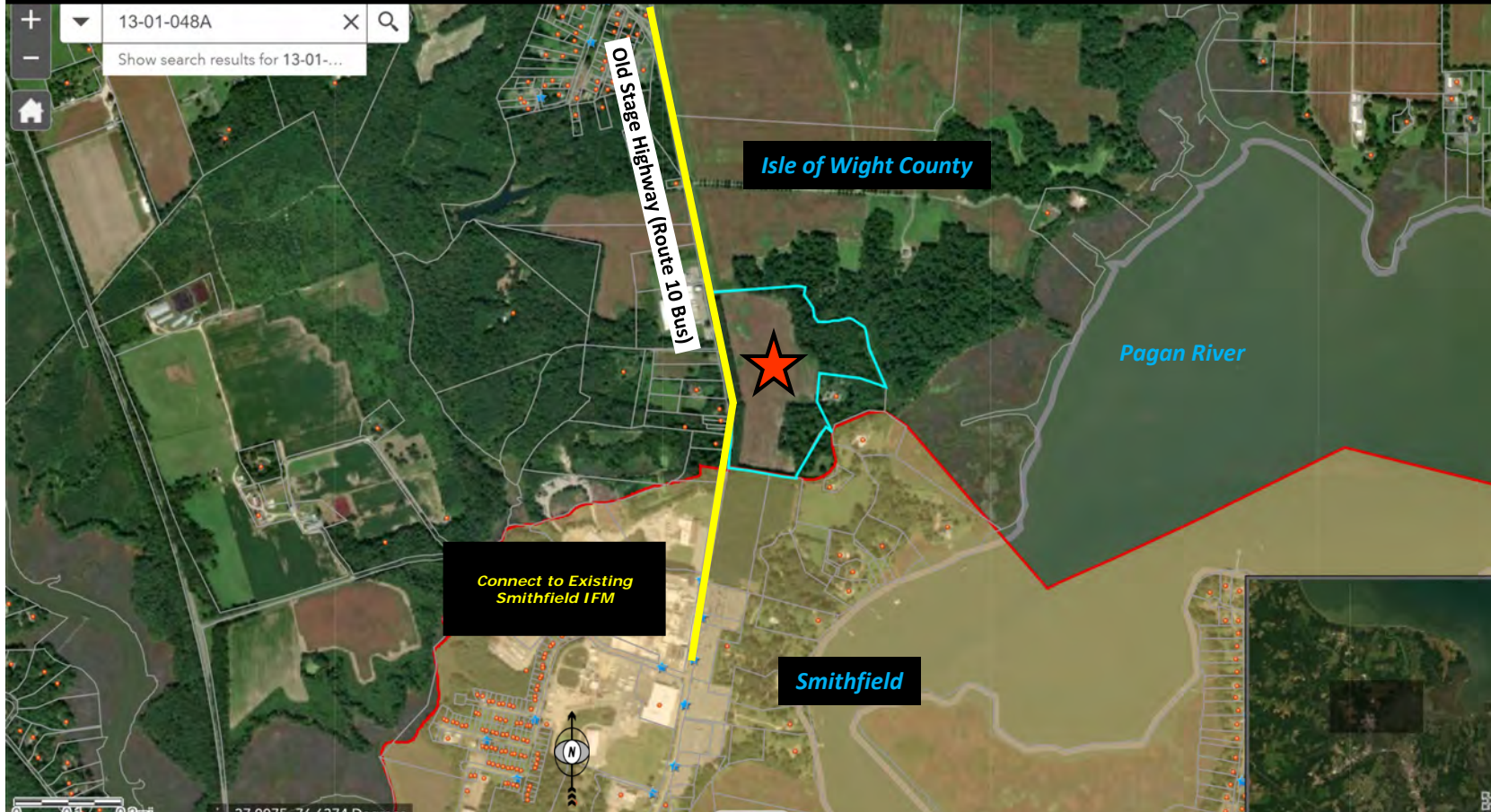
PLAT SHOWING EASEMENT TO BE ACQUIRED FROM  
**JWJ INVESTMENTS, LLC**  
 BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN  
 HARDY DISTRICT  
 ISLE OF WIGHT COUNTY, VIRGINIA  
 SCALE 1"=60' JULY 26, 2020  
 JN: 42956-803-13-01-048A  
 W.M. NAULTY, SURVEYOR  
 4701 OWENS WAY, SUITE 900  
 PRINCE GEORGE, VIRGINIA 23875



NF  
 WILLIAM STARLING WELLS III  
 PIN: 21A-01-042  
 INST. #160003425

# Property Location for Parcel 13-01-048A

## Surry to Smithfield Hydraulic Improvements and Force Main Installation



The vision of HRSD is that future generations will inherit clean waterways and be able to keep them clean.



HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #9

Agenda Item 19. COVID-19 Wastewater Surveillance Study Presentation



# COVID-19 Surveillance Commission Update

January 26, 2021

- Weekly sampling of the 9 major facilities
- Data through 1/20 presented
- General notes;
  - Post-holiday surge through 12/29
  - Viral load declining in recent 3 weeks
  - Regional clinical cases following this trend

# Clinical Cases by Region and State



## Case Measure

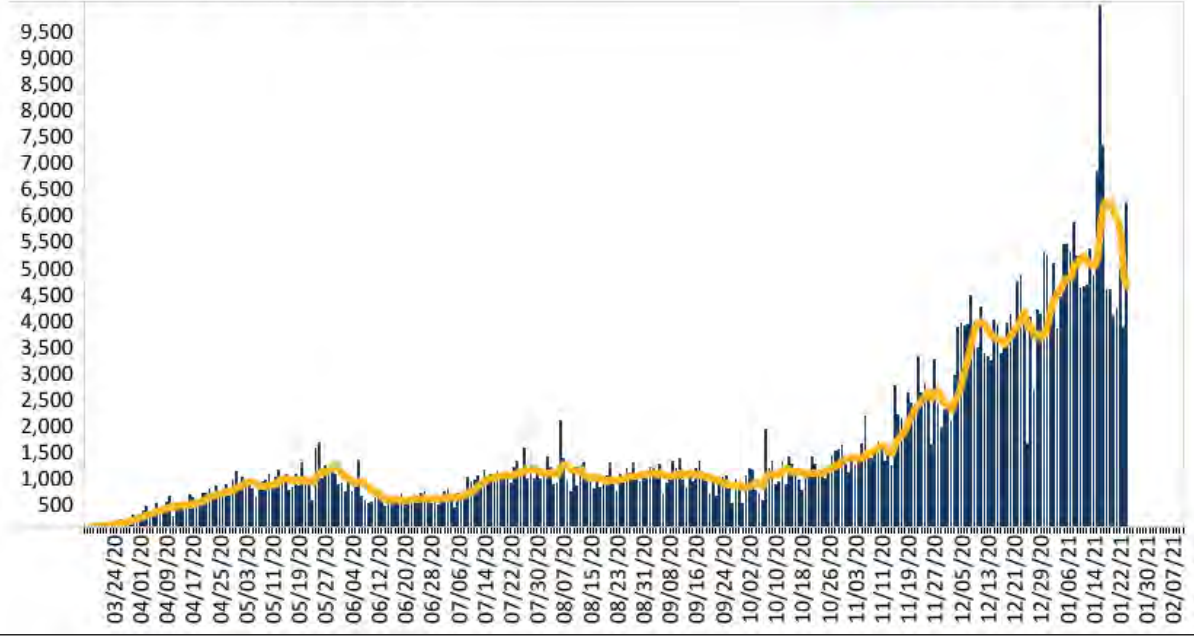


Dashboard Updated: 1/25/2021, Data entered by 5:00 PM the prior day.

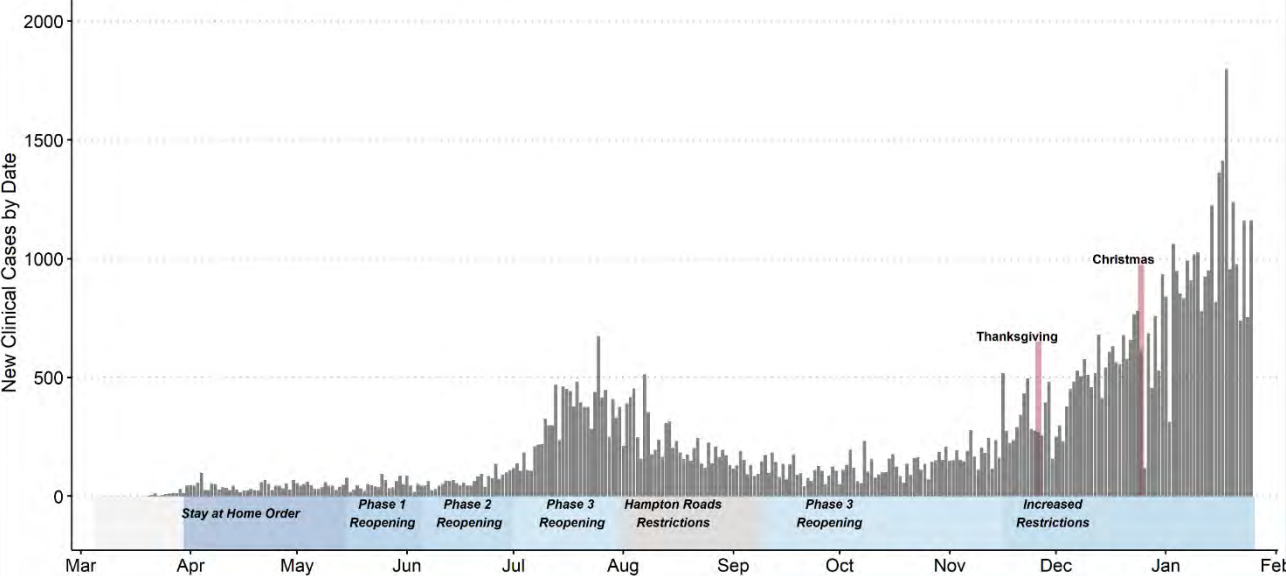
### Total Cases by Date Reported - Virginia

Number of new cases VDH reported by day.

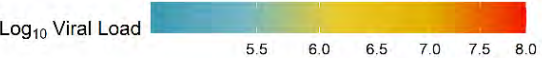
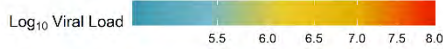
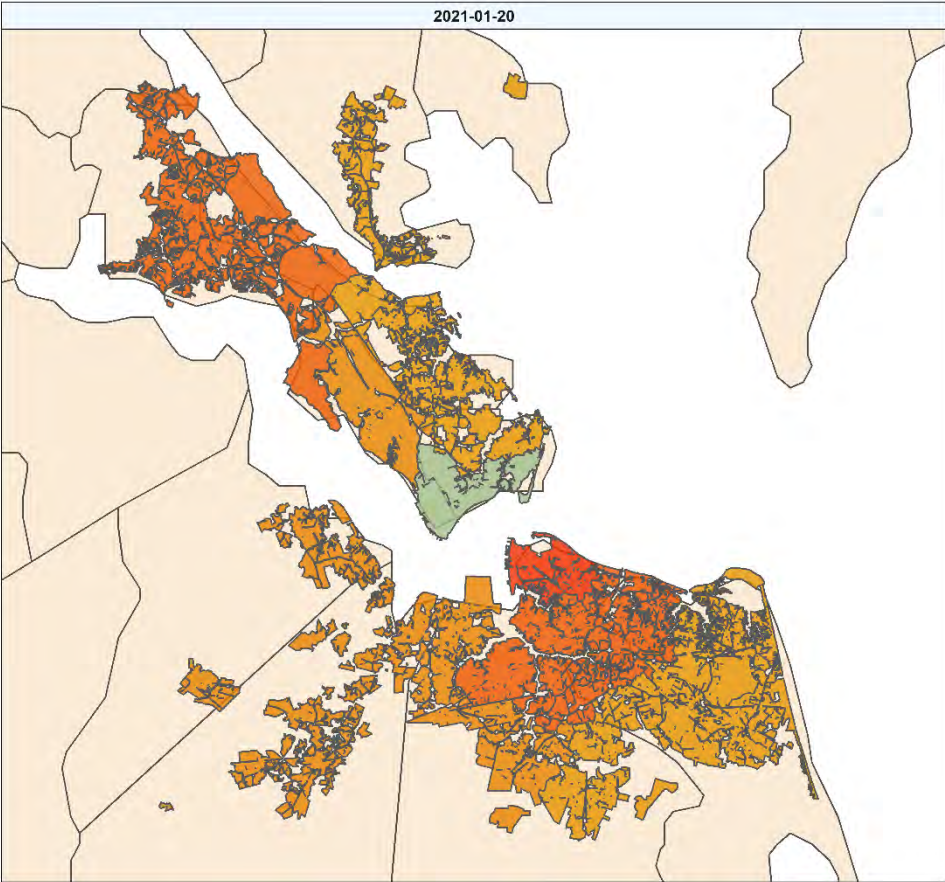
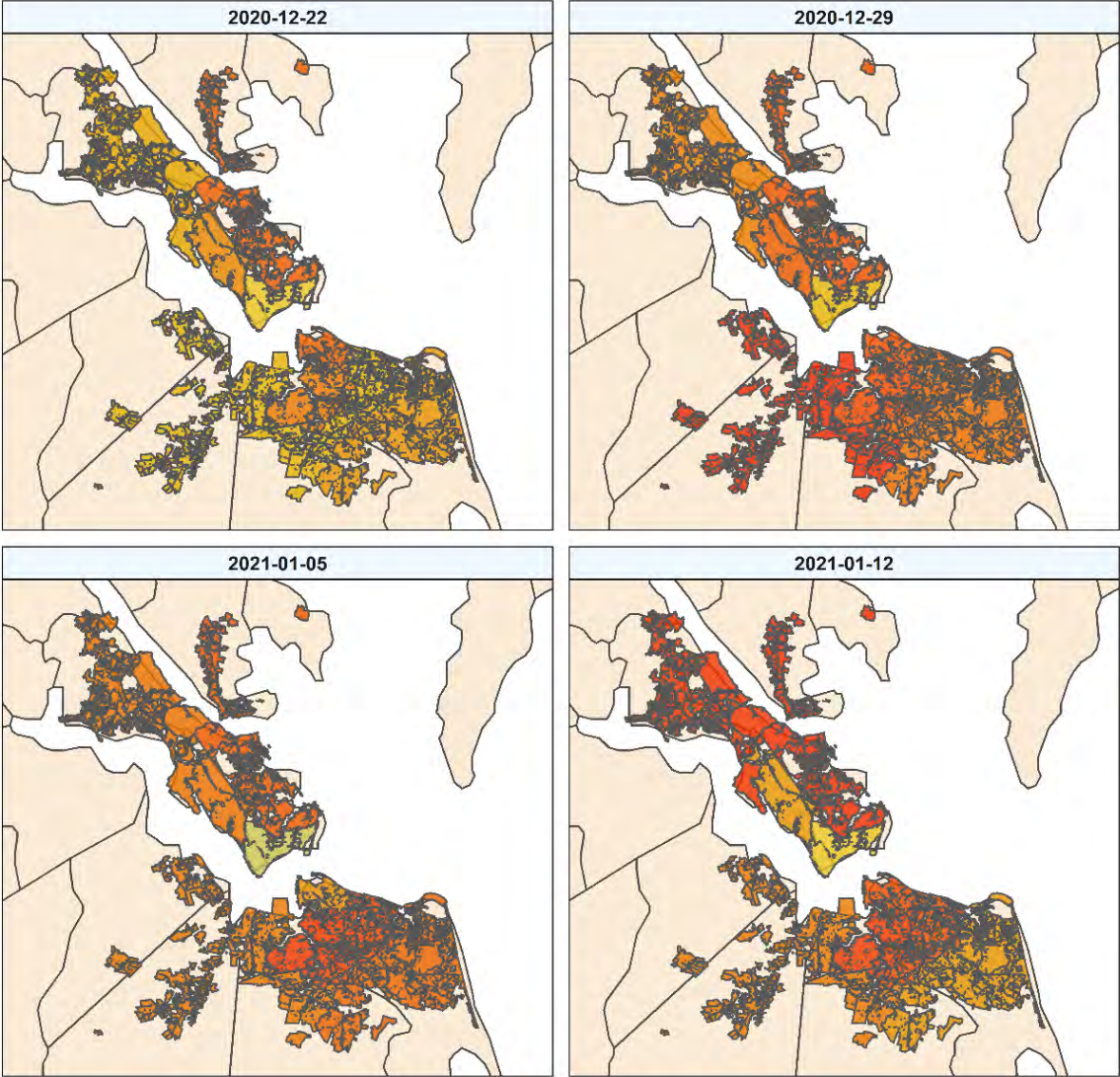
- Reported Cases
- 7-day Moving Average



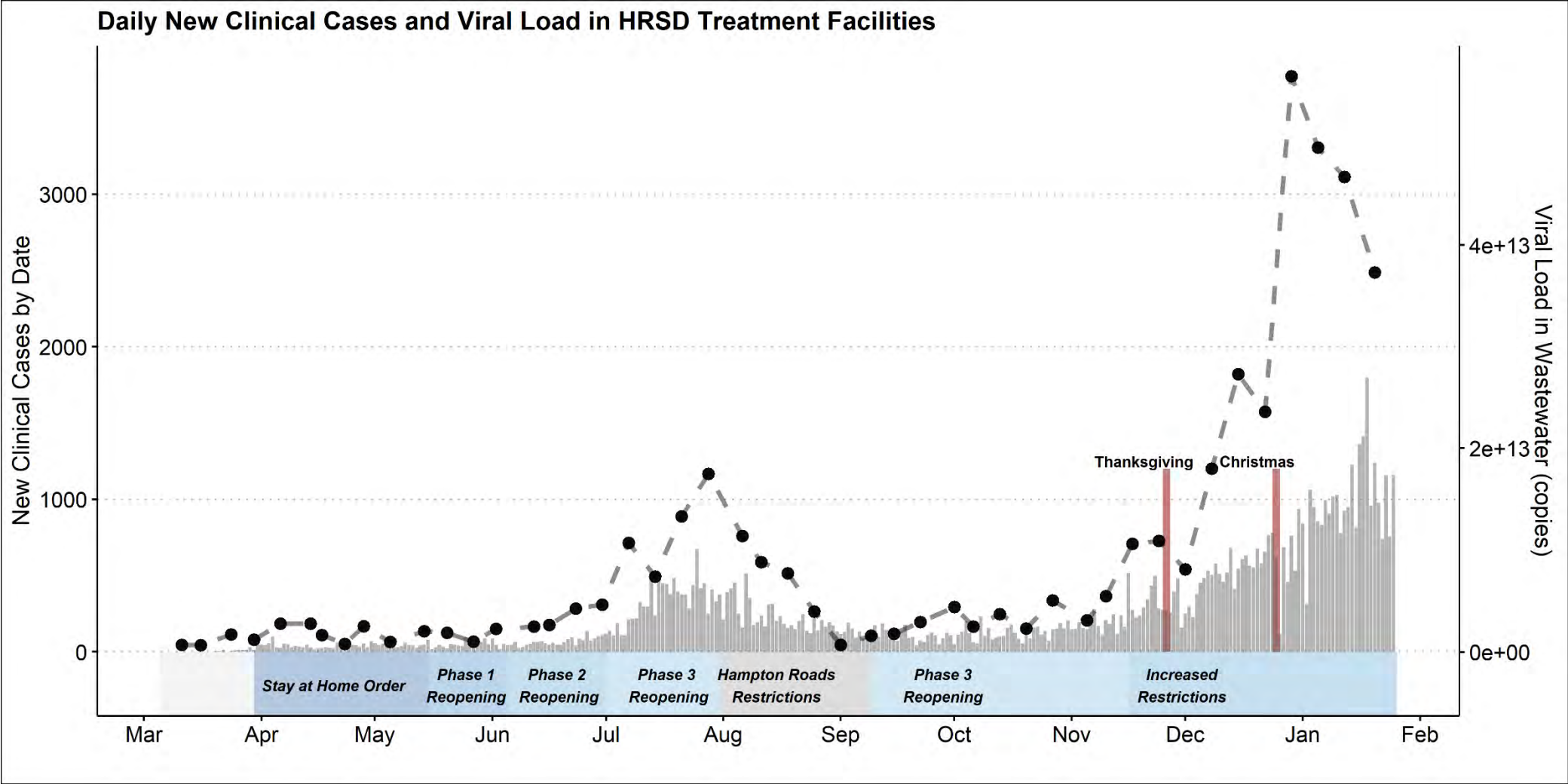
### Hampton Roads Daily New Clinical Cases



# Most Recent 5 Weeks



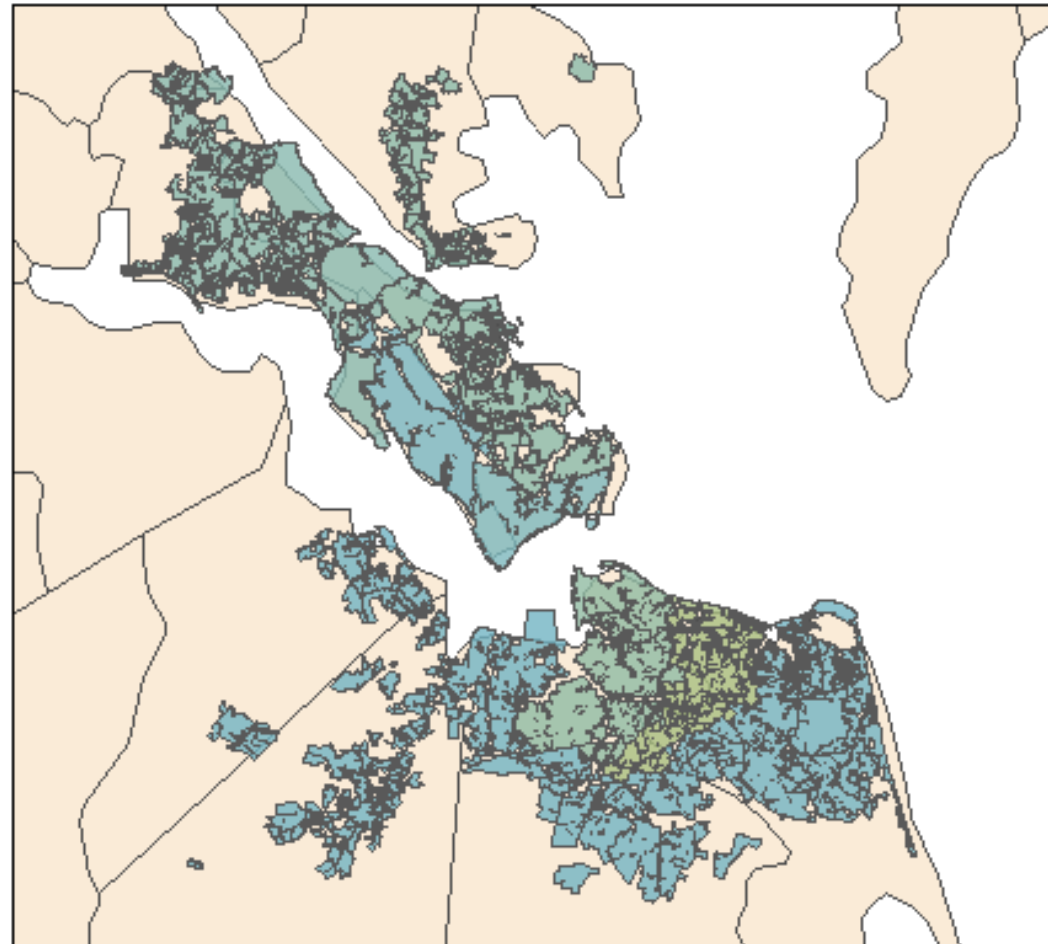
# Regional Viral Load



- Continued weekly monitoring of 9 major facilities
- Continue to provide data to VDH and CDC
- Hampton Roads WW Surveillance Workgroup met 1/22
  - 3 contract staff hired to support wastewater surveillance statewide
  - Goals for VA
    - Community of practice
    - Standardize data collection and analysis tools

Population Normalized SARS-CoV-2 Loading

Date: 2020-03-11





HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #10

Agenda Item 20. Capital Improvement Program Quarterly Update presentation



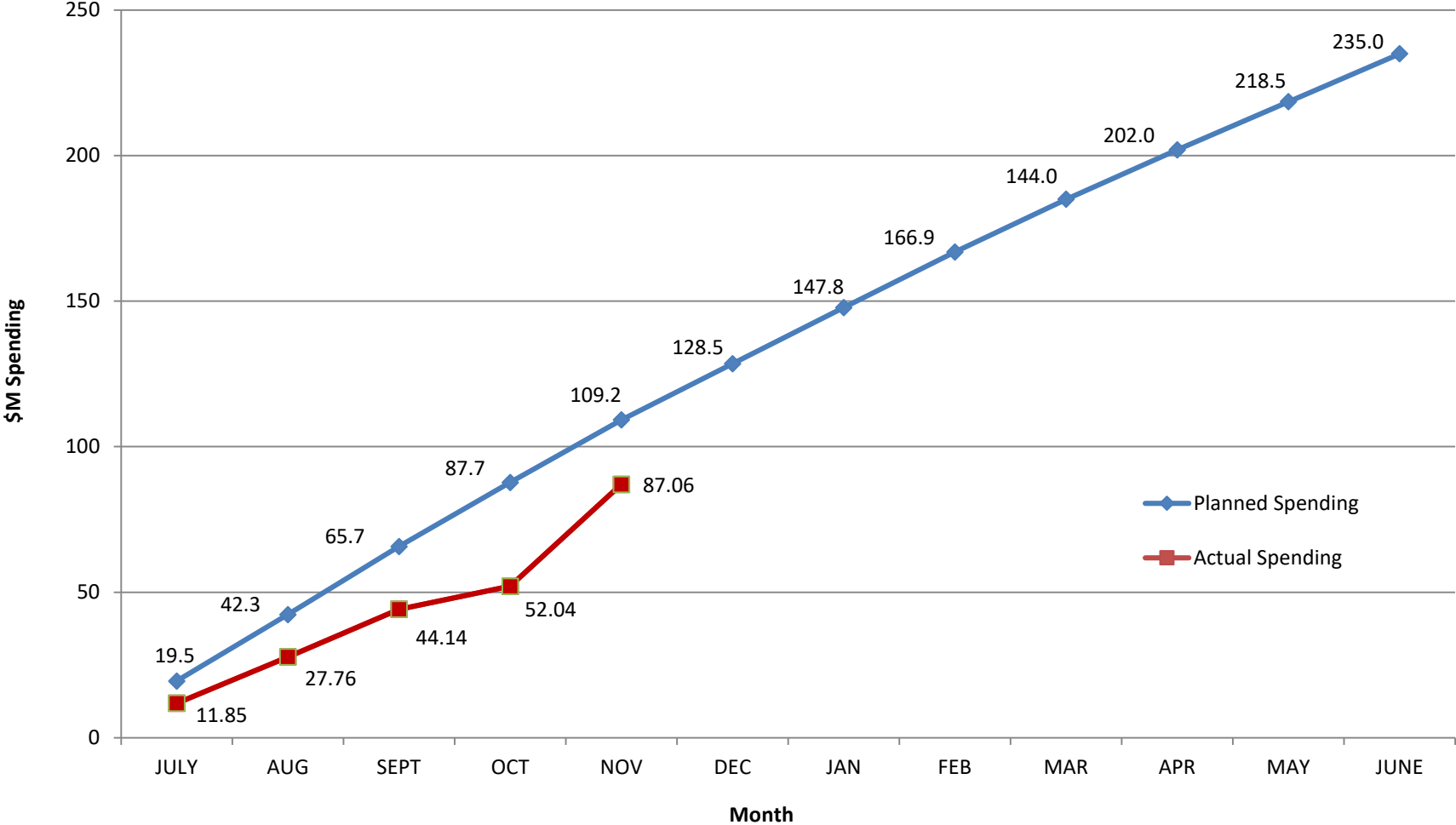
# Capital Improvement Program Commission Briefing

January 26, 2021

- CIP Expenditures for FY-2021
- CIP Performance Metrics
- Summary of Projects Requiring Additional Appropriation in CY-2020
- Consent Decree/Sewer Rehabilitation Plan – Project Updates
- Significant Project Updates
- Project Focus:
  - Chesapeake-Elizabeth Treatment Plant Closure & Interceptor System Diversion Improvements

# CIP Expenditures for FY-2021

## Cumulative Monthly Expenditures & Reimbursements



## CIP Projects with Largest Spending Projections in FY-2021

Project Name	Planned FY-2021 CIP Spending	Actual FY-2021 Spending
Surry Hydraulic Improvements and Interceptor Force Main	\$15,507,000	\$3,948,000
Virginia Beach Boulevard Force Main Phase VI	\$12,131,000	\$8,954,000
Hampton Trunk A and B Replacement	\$10,667,000	\$696,000

- CIP Spending and Staffing
- Construction Contracts Awarded in CY-2020
- Construction Contracts Completed in CY-2020

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## CIP Spending and Staffing

---

CIP Spending for Calendar Year 2020 = \$193.8M  
(\$48.5M Design, \$145.3M Construction)

### Internal Staffing:

Engineering Department Staff = 45 Full-Time, 6 Part-Time

### External Staffing:

Design Services Staff = 243 Full-Time Employees

Construction Services Staff = 808 Full-Time Employees

Total = 1051 Full-Time Employees

# Construction Contracts Awarded in CY-2020

Project Name	CIP	Bid Date	CIP Estimate	Engineer's Estimate	Low Bid	Average of Bids	High Bid	# Bidders
Elbow Road PRS	CE011821	01/15/20	5,700,000.00	\$5,957,800.00	\$5,297,000.00	\$5,842,552.14	\$6,488,000.00	7
Shingle Creek and Hickman's Branch	NP012500	01/23/20	1,550,481.00	\$1,222,100.00	\$546,873.00	\$628,494.42	\$745,970.00	5
NTP Land Acquisition-Land Stabilization	NP013500	03/03/20	4,384,800.00	\$3,994,575.00	\$3,091,750.00	\$3,093,370.00	\$3,240,237.50	4
NTP Land Acquisition-Structural Demolition	NP013600	03/03/20	1,524,849.00	\$719,600.00	\$666,027.00	\$696,600.00	\$719,600.00	4
Kingsmill Pump Station Piping and Wet Well	WB012600	04/08/20	2,297,225.00	\$3,959,138.00	\$3,614,450.10	\$3,819,386.03	\$4,174,940.00	4
Western Trunk	CE011700	04/14/20	1,699,000.00	\$3,121,309.57	\$2,378,547.17	\$3,137,960.42	\$3,975,581.37	4
Newtown Road	CE010520	04/14/20	3,500,000.00	\$2,678,980.43	\$1,951,812.53	\$2,547,359.51	\$2,787,208.63	4
NTP Influent Bar Screen Replacement	NP014400	05/06/20	2,700,000.00	\$2,040,000.00	\$1,134,000.00	\$1,295,847.50	\$1,435,000.00	4
Hampton Trunk A & B Repl - Jefferson to Walnut	BH015600	07/01/20	9,151,002.00	\$2,300,338.00	\$9,223,670.00	\$9,970,457.78	\$10,732,000.00	5
Treatment Plant Grease Handling Facilities	GN013300	08/01/20	8,300,000.00	\$9,633,434.00	\$7,997,000.00	\$8,992,847.75	\$10,844,000.00	4
Suffolk IFM Section I ML Valving	NP011300	09/09/20	1,277,000.00	\$1,513,750.00	\$1,862,500.00	\$2,644,263.33	\$4,193,890.00	3
Middlesex IFM Phase 1 - Cooks Corner	MP013600	09/30/20	1,639,440.00	\$1,804,481.00	\$1,235,099.75	\$1,708,429.94	\$2,098,800.00	4
King William Treatment Plant Improvements Phase I	MP012000	10/13/20	3,240,200.00	\$1,533,612.00	\$1,100,000.00	\$1,198,966.67	\$1,319,900.00	3
YRTP Headworks Effluent Pipe Rehab - Emerg Project	YR014400	10/30/20	1,883,292.00	\$1,319,627.00	\$870,000.00	\$1,234,666.67	\$1,845,000.00	3

Totals	14			\$41,798,745.00	\$40,968,729.55	\$46,811,202.16	\$54,600,127.50	
% Difference					-2.0%	<b>12.0%</b>	30.6%	



# Construction Contracts Completed in CY-2020

Project Name	CIP	Constn Start Date	Original Contract	Final Contract	# CO	CO Percentage
ABTP Misc Imp	AB010100	06/27/17	\$2,644,800.00	\$3,516,396.00	3	33.0%
Shipps Corner PRS	AT011510	08/22/17	\$2,097,330.00	\$2,371,369.60	5	13.1%
Orcutt Avenue Mercury Boulevard	BH015000	07/31/18	\$7,763,168.60	\$7,798,957.05	2	0.5%
Pump Station Wetwell Rehabilitation	GN012140	06/27/17	\$2,408,844.00	\$2,295,554.95	5	-4.7%
JRTP & NTP Dewatering Bldg Mod & Centrifuge	GN016500	02/26/19	\$481,000.00	\$515,478.70	3	7.2%
Mathews Nursing Home Line Vac Sewer Improvements	MP012900	06/25/19	\$984,607.50	\$1,011,590.52	2	2.7%
Small Communities Collection System Rehab Ph 1	MP013000	05/22/18	\$273,359.33	\$273,888.90	2	0.2%
Small Communities Collection System Rehab Ph II	MP013010	07/23/19	\$259,574.70	\$286,398.35	2	10.3%
VIP NRI Contract B	VP016320	02/25/14	\$107,958,996.90	\$125,126,504.80	41	15.9%
North Trunk Part B Replacement	WB012200	12/18/18	\$1,479,880.00	\$1,495,980.00	1	1.1%

Totals \$126,351,561.03 \$144,692,118.87 **14.5%**

2019 6.3%  
2018 9.0%  
2017 10.4%  
2016 14.7%

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## Summary of CIP Projects Requiring Additional Appropriation in CY-2020

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- Total Value of 10-Year CIP \$2.79B
- CIP Spending in CY-2020 \$193.8M
- Total # of Projects in 10-Year CIP 195
- # of Active Projects in CY-2020 149

## Summary of Projects Requiring Additional Appropriation in CY-2020 (cont.)

Project Name		Original Appropriation*	Additional Appropriation	Total Appropriation	Percent Increase
Asset Management Implementation	AD012100	\$1,700,000	\$213,290	\$1,913,290	12.5%
Atlantic TP FOG Receiving Station	AT012910	\$6,597,517	\$251,129	\$6,848,646	3.8%
Atlantic TP Thermal Hydrolysis Process	AT013500	\$60,666,815	\$2,526,773	\$63,193,588	4.2%
Boat Harbor Outlet Sewer Improvements	BH014700	\$6,520,791	\$555,890	\$7,076,681	8.5%
Treatment Plant Grease Handling Facilities	GN013300	\$9,499,818	\$1,882,632	\$11,382,450	19.8%
King William Treatment Plant Improvements Ph I	MP012000	\$801,000	\$3,147,076	\$3,948,076	392.9%
West Point Treatment Plant Tertiary Filter	MP012400	\$641,780	\$394,387	\$1,036,167	61.5%
Mathews Main Vacuum Pump Station Replacement	MP012500	\$3,729,080	\$80,000	\$3,809,080	2.1%
Mathews Nursing Home Line Vacuum Sewer Main	MP012900	\$1,365,928	\$60,242	\$1,426,170	4.4%
Suffolk IFM Main Line Valving Replacement	NP011300	\$1,060,000	\$1,138,783	\$2,198,783	107.4%
Smithfield Pressure Reducing Station	NP014300	\$1,460,000	\$530,486	\$1,990,486	36.3%
Kingsmill Pump Station Piping Replacement and Wetwell	WB012600	\$1,345,000	\$3,210,185	\$4,555,185	238.7%
Williamsburg Treatment Plant Outfall and Diffuser Repair	WB012800	\$266,189	\$100,944	\$367,133	37.9%
	Totals	\$95,653,918	\$14,091,817	\$109,745,735	14.7%
	2019	\$266,575,507	\$121,887,984	\$388,463,491	45.7%
	2018	\$96,238,677	\$19,463,504	\$115,702,181	20.2%
	2017	\$196,860,303	\$32,028,770	\$228,889,073	16.3%
	2016	\$150,415,925	\$30,220,144	\$180,636,069	20.1%

\* Original appropriation is from start of calendar year (includes additional appropriations from prior calendar years)

# Surry Hydraulic Improvements and Interceptor Force Main

## Engineers:

Bowman & HDR Engineering

## Design-Build Team:

- RK&K & Timmons
- MEB

## Schedule Completion:

November 2022 (substantial)  
March 2023 (final)

**Project Value: \$40.1M**

## Funding:

HRSD Revenue Bond



# Virginia Beach Boulevard Force Main Phase VI

**Engineer:**

Kimley Horn

**Contractor:**

Bridgeman Civil

**Schedule Completion:**

June 2021

**Project Value: \$28.5M**

**Funding:**

HRSD Revenue Bond



# Hampton Trunk A and B Replacement

## Engineers:

Whitman Requardt & Assoc.

## Contractor:

Tidewater Utility Construction

## Schedule Completion:

April 2022

## Project Value: \$19.2M

## Funding:

HRSD Revenue Bond



## Consent Decree/Sewer Rehabilitation Plan – Project Updates

- Consent Decree Condition Assessment Program (CAP) identified condition defects in the regional sanitary sewer system.
- EPA/VDEQ approved the Rehabilitation Action Plan (RAP) in May 2015.
- RAP addresses improvements to gravity mains, force mains, pump stations and associated system compounds.
- RAP will be implemented in three phases:
  - Phase 0 (June 2017)
  - Phase 1 (May 2021)
  - Phase 2 (May 2025)

## Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 0)

CIP	Project Name	Project Status	Total CIP Cost
GN014300	North Shore Operations Unvented High Spot Correction	Complete	\$945,486
VP012100	State Street Pump Station Electrical Modifications	Complete	\$2,158,629



## Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 1)

CIP	Project Name	Project Status	Total CIP Cost
BH012700	Hampton Trunk Sewer Extension Division B - Claremont Force Main Replacement	Complete	\$4,715,273
BH014700	Boat Harbor Outlet Sewer Improvements	Construction	\$7,076,681
BH014800	Jefferson Avenue Extension Gravity Improvements	Complete	\$3,067,392
BH015000	Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements	Complete	\$9,048,588
CE010400	Independence Boulevard Pressure Reducing Station Modifications	<b>Complete</b>	\$4,127,452
CE011700	Western Trunk Force Main Replacement	Construction	\$4,286,000
GN011700	Pump Station Generators and Standby Pump Upgrades	Construction	\$7,106,000
GN012130	Manhole Rehabilitation-Replacement Phase I and North Shore Siphon Chamber Rehabilitation Phase I	Construction	\$10,853,969
GN012140	Pump Station Wet Well Rehabilitation Phase I	Complete	\$3,219,388
GN015100	Arctic Avenue Pump Station and Newtown Road Pump Station Electrical Improvements	Complete	\$364,708
JR012100	Huxley to Middle Ground Force Main Extension	Construction	\$5,185,885
NP011300	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	Construction	\$2,198,783
NP012600	Deep Creek Interceptor Force Main Replacement	<b>Complete</b>	\$6,233,000
WB012200	North Trunk Force Main Part B Replacement	Complete	\$1,881,712

## Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

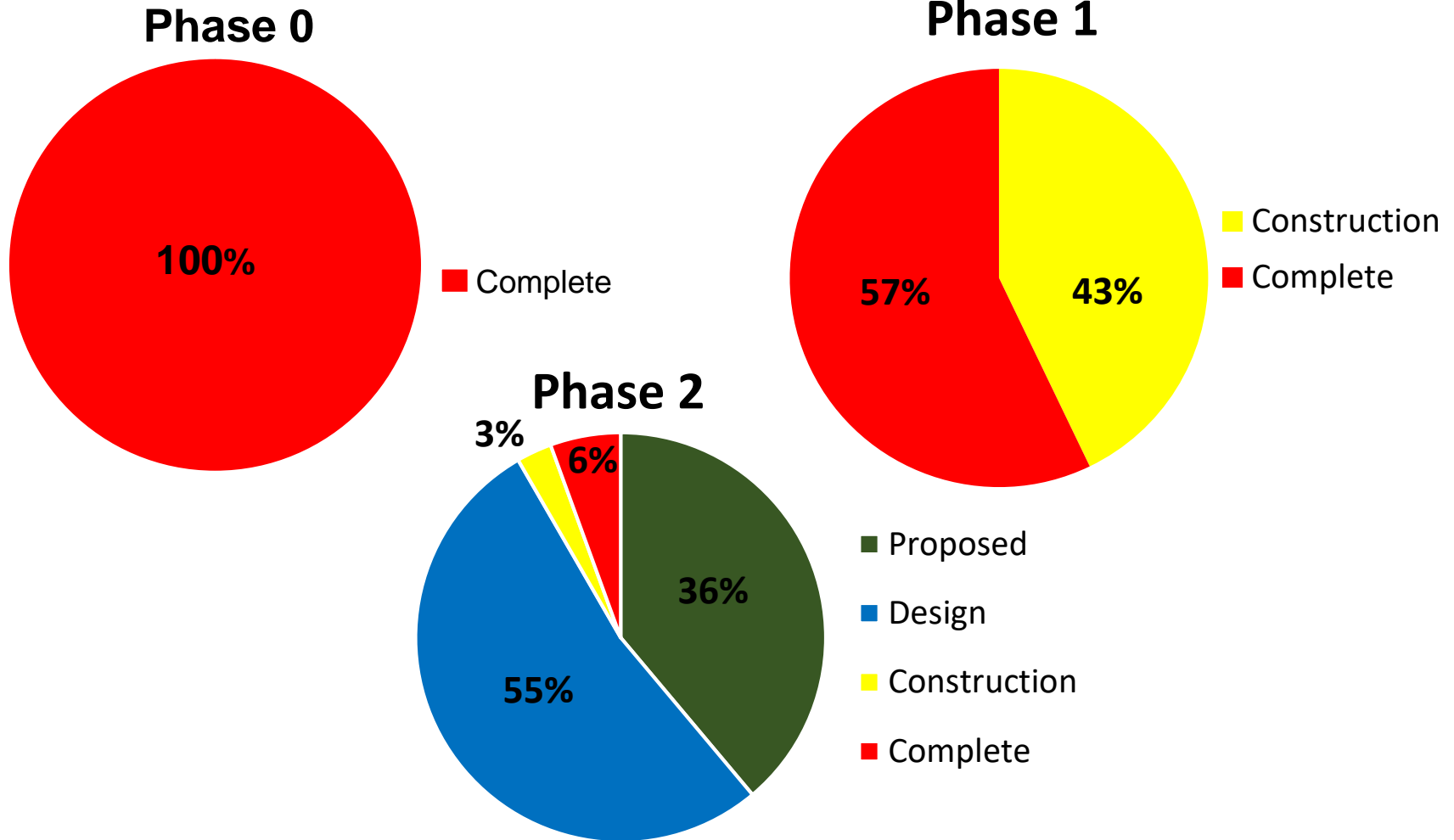
CIP	Project Name	Project Status	Total CIP Cost
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	Design	\$27,343,000
AT011510	Shipp's Corner Interim Pressure Reducing Station	Complete	\$3,701,385
AT011520	Shipp's Corner Pressure Reducing Station Modifications	Proposed	\$1,826,426
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	Proposed	\$5,571,253
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	Design	\$2,496,266
AT013100	South Norfolk Area Gravity Sewer Improvements	Design	\$11,371,000
AT013200	Dozier's Corner Pump Station and Washington District Pump Station Flooding Mitigation Improvements	Proposed	\$320,016
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	Design	\$4,404,011
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	Design	\$2,243,200
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	Design	\$11,470,682
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	Design	\$4,644,400
BH015900	Bloxoms Corner Force Main Replacement	Design	\$3,495,808
CE011300	Birchwood Trunk 24-Inch 30-Inch Force Main at Independence Boulevard Replacement Phase II	Proposed	\$1,161,500
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	Proposed	\$2,218,033
CE012000	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements (I-264 VDOT Betterment)	Complete	\$111,320
GN010730	Horizontal Valve Replacement Phase III	Proposed	\$1,211,064

## Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

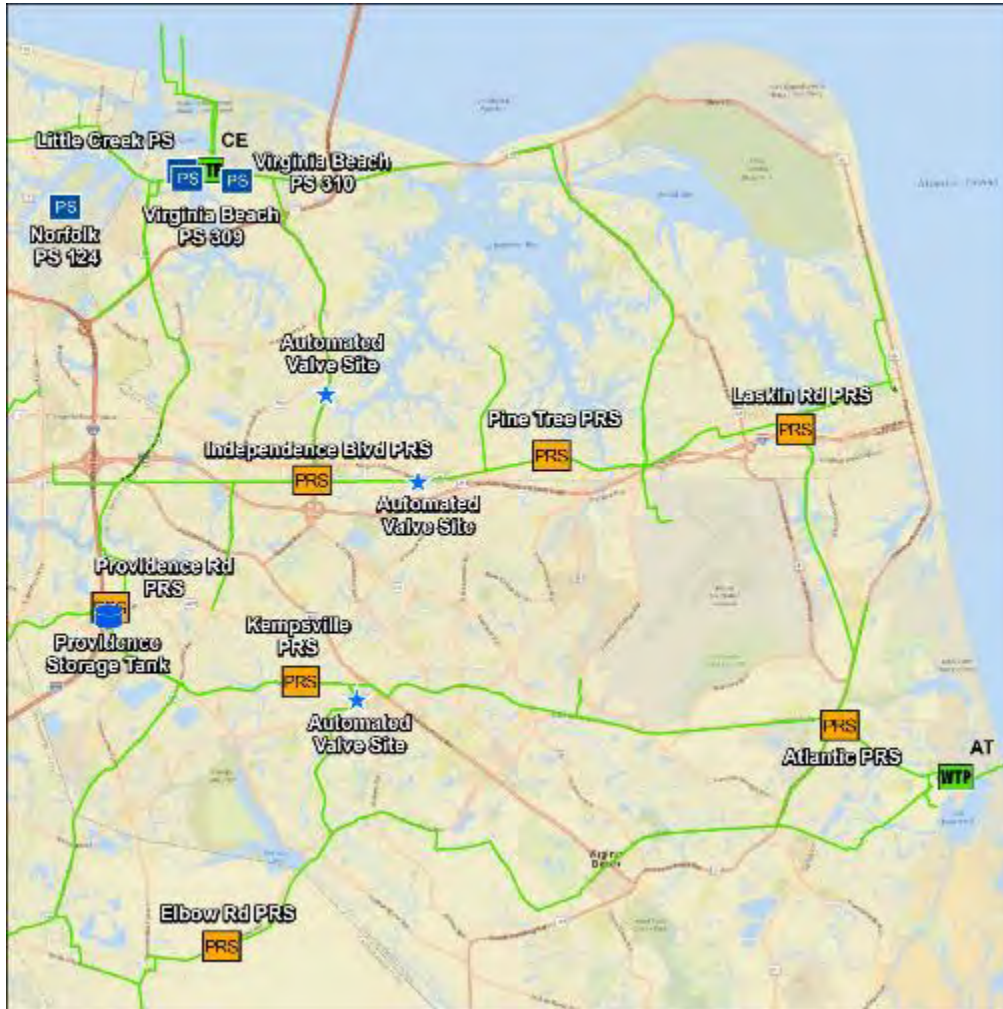
CIP	Project Name	Project Status	Total CIP Cost
GN014900	North Shore Gravity Sewer Improvements Phase I	Design	\$5,639,906
GN015000	South Shore Gravity Sewer Improvements Phase I	Proposed	\$929,820
GN015300	Interceptor System Valve Improvements Phase I	Proposed	\$3,259,305
GN015400	South Shore Aerial Crossing Improvements	Proposed	\$332,484
JR010600	Lucas Creek Pump Station Upgrade	Design	\$2,595,000
NP010620	Suffolk Pump Station Replacement	Design	\$12,049,000
NP012400	Western Branch Sewer System Gravity Improvements	Proposed	\$3,465,832
NP012500	Shingle Creek and Hickman's Branch Gravity Sewer Improvements	Construction	\$9,089,000
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	<b>Design</b>	\$1,988,585
VP014010	Ferebee Avenue Pump Station Replacement	Design	\$5,852,747
VP014020	Sanitary Sewer Project 1950 12 Inch Force Main and 24 and 18 Inch Gravity Replacement	Design	\$7,179,000
VP014700	Ingleside Road Pump Station Replacement	Design	\$3,810,449
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	Proposed	\$1,791,901
VP015320	Larchmont Area Sanitary Sewer Improvements	Design	\$38,734,000
VP015400	Lafayette Norview-Estabrook Pump Station Replacements	Design	\$18,495,895
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	<b>Design</b>	\$1,973,163
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	<b>Design</b>	\$3,116,334
VP017100	Central Norfolk Area Gravity Sewer Improvements	Proposed	\$3,469,837
VP018000	Park Avenue Pump Station Replacement	Design	\$5,955,271
YR010300	Foxridge Sanitary Sewer System Sections 1, 4 & 5 Gravity and Woodland Road Fox Hill Road Gravity Sewer Rehabilitation	Proposed	\$3,884,807

\$289,820,103

# Consent Decree/Sewer Rehabilitation Plan Project Updates



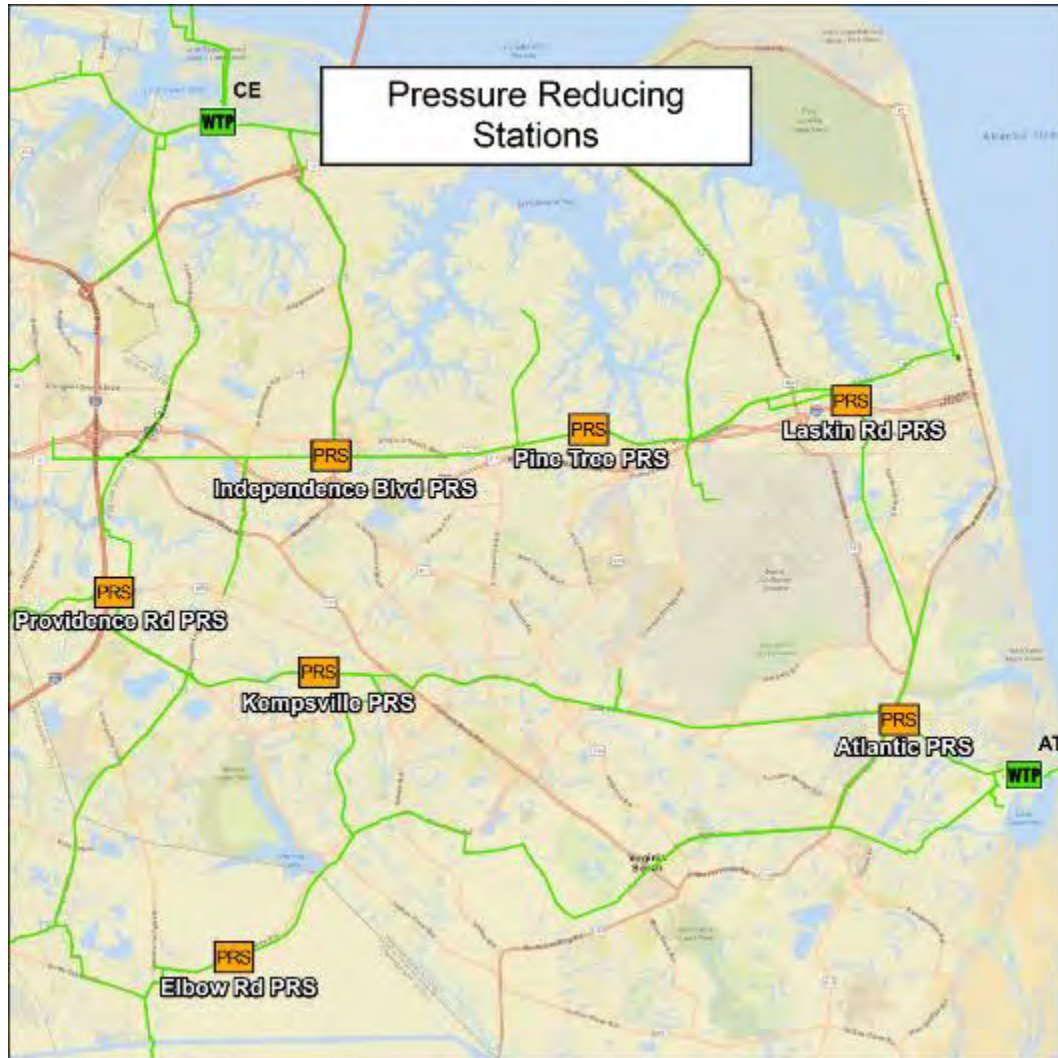
# CETP Closure - Interceptor System Diversion Improvements



Program Budget  
\$ 118 million

Program Schedule  
Start: September 2016  
End: August 2021

# Diversion Improvements: Pressure Reducing Station Projects



Program Budget

\$ 51 million

Program Schedule

Start: September 2016

End: August 2021

Project Delivery Method

6 PRS's – CMAR

Elbow Road PRS – Design/Bid/  
Build

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## Elbow Road PRS Rendering

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# Elbow Road PRS Construction Progress





# Diversion Improvements: City/Navy Pump Stations



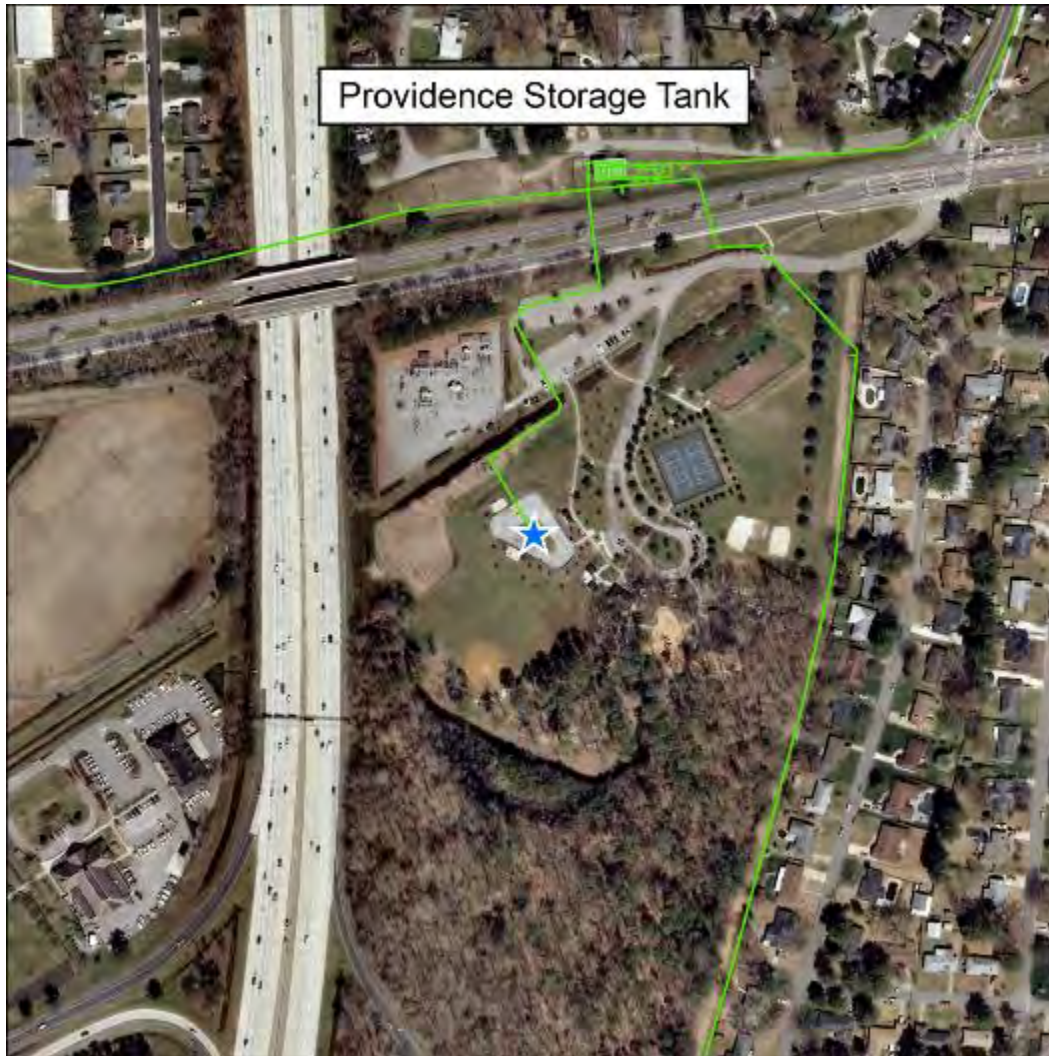
Budget  
\$ 4 million

Schedule  
Start: September 2016  
End: December 2021

Project Delivery Method  
City PS's – Reimbursement \*  
Navy PS – Design/Bid/Build  
Private PS's – Under Review \*

\*Additional stations under analysis for possible minor work and for contingency planning

# Diversion Improvements: Providence Rd Off-line Storage Facility



## Budget

\$ 32 million

## Schedule

Start: September 2016

End: April 2021

## Project Delivery Method

Design/Build

# Providence Rd Off-line Storage Facility Rendering



# Providence Rd Off-line Storage Facility Construction Progress



# Diversion Improvements: Virginia Beach Blvd Force Main



## Budget

\$ 26 million

## Schedule

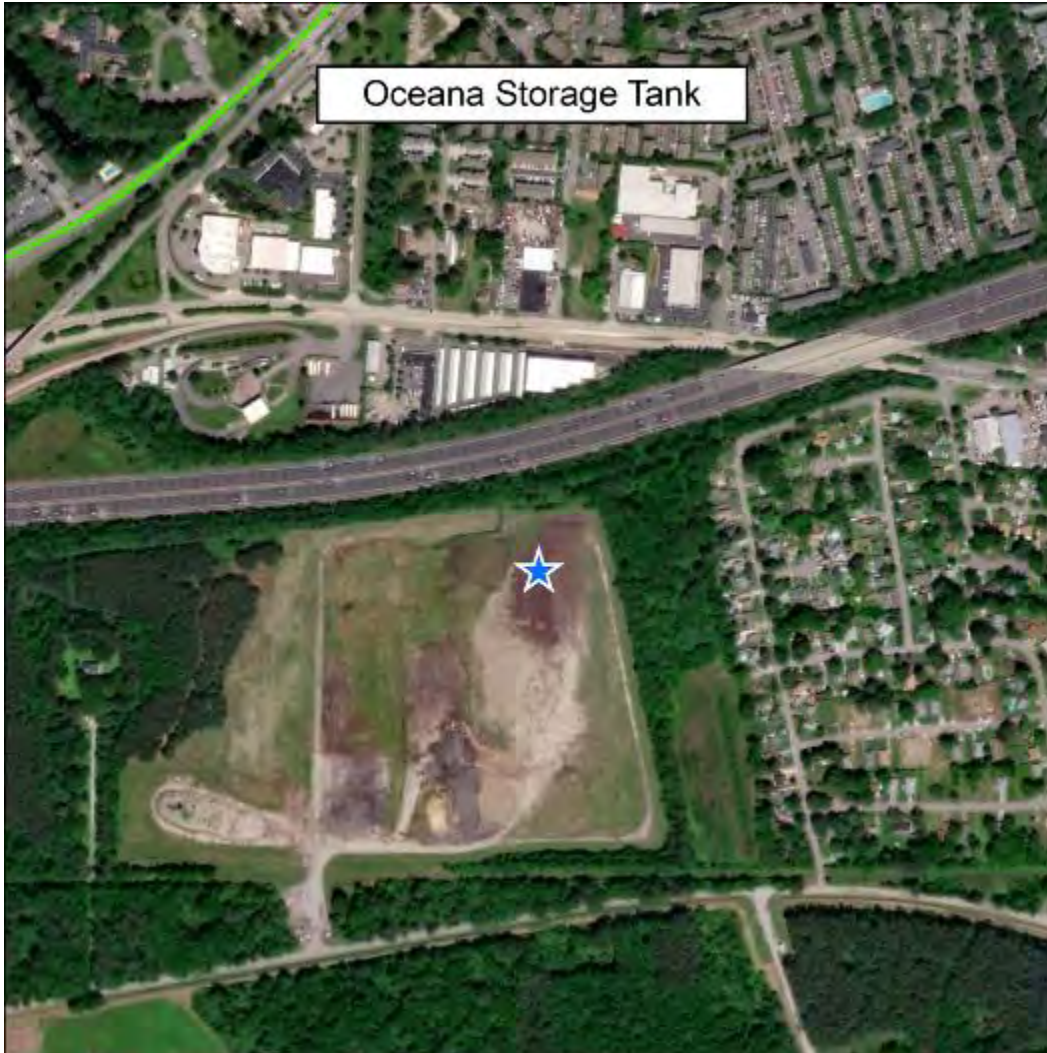
Start: September 2016

End: June 2021

## Project Delivery Method

Design/Bid/Build

# Diversion Improvements: Oceana Off-line Storage Facility



## Budget

\$ 17 million

## Schedule

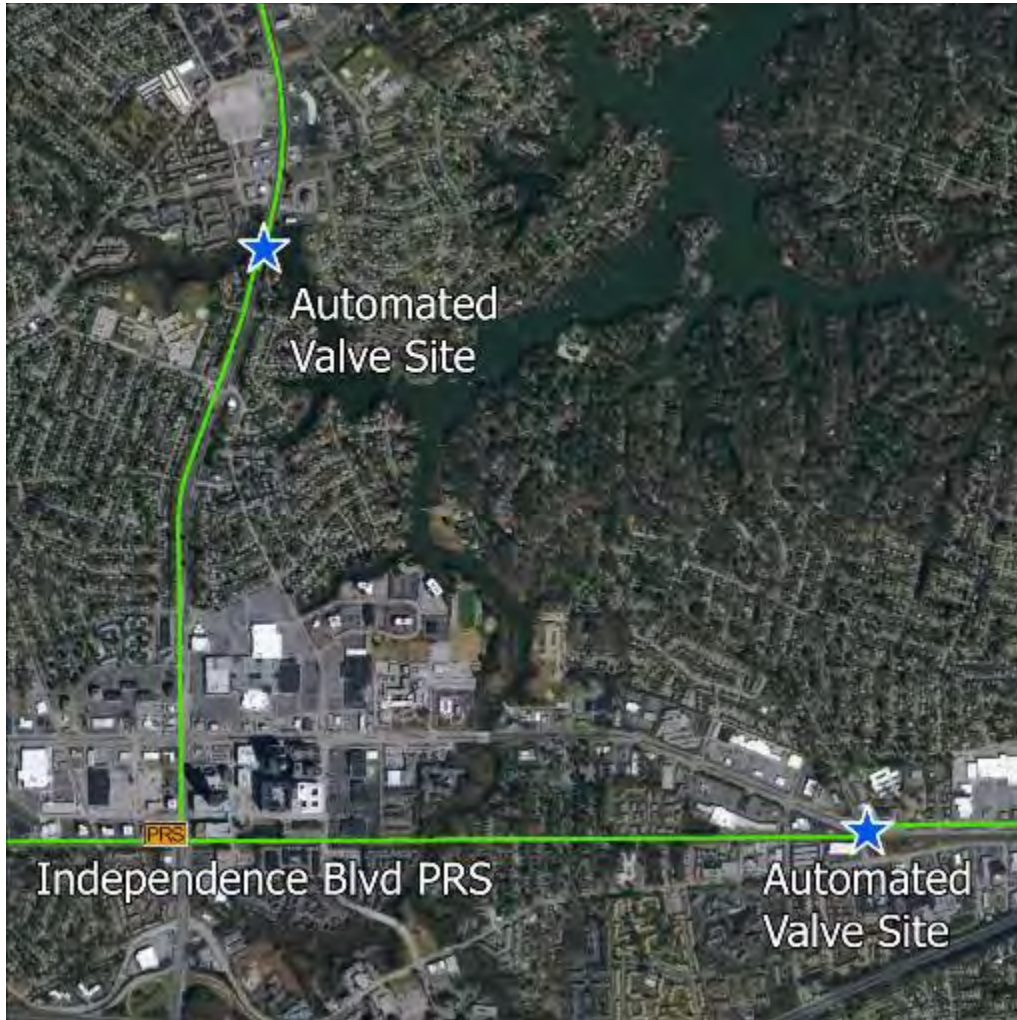
Start: November 2018

End: ---

## Notes

- Project placed on hold and replaced with automated valves to support taking CETP off-line
- HRSD plans to spend an additional \$100K to secure a 10-year option to use the land

# Diversion Improvements: Automated Diversion Facilities



## Budget

\$ 3 million

## Schedule

Start: January 2020

End: June 2021

## Project Delivery Method

Design/Bid/Build with  
Sewer On-call Contract

# Diversion Improvements: Salem Road Automated Valve



## Budget

\$ 1.5 million

## Schedule

Start: September 2016

End: June 2021

## Project Delivery Method

Design/Bid/Build with  
Sewer On-call Contract



# Chesapeake-Elizabeth Treatment Plant (CETP) Decommissioning



## Budget

\$ 10.7 million

## Schedule

Start: January 2021

End: February 2026

## Project Delivery Method

TBD

---

## Atlantic Treatment Plant Projects Associated with CETP Closure

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**AT013500 Thermal Hydrolysis Process (THP)** – THP has been online since Fall 2020. This project doubled the solids handling capacity of ATP. The vendor for this system is CAMBI.

**AT012910 Fats, Oils and Grease (FOG)** – The FOG Receiving Station project will be conducting clean water testing in January 2021. ATP should be receiving FOG trucks in Feb/March 2021. This project will use grease to create more electricity at ATP.

**AT013900** – Added 4<sup>th</sup> Influent screen to increase capacity at ATP. This project has been online since July 2020.

## 2021 Diversion to Atlantic Treatment Plant



**Step 1 - Spring 2021:** First 6 MGD diverted when Atlantic Pressure Reducing Station is substantially complete.

**Step 2 – Late Summer 2021:** Next 5 MGD when all HRSD infrastructure projects are complete.

**Step 3 - Fall 2021:** Final 6 MGD after monitoring interceptor system and treatment plants for approximately one month following Step 2.

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Questions?

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HRSD Commission Meeting Minutes  
January 26, 2021

Attachment #11

AGENDA ITEM 26. Informational Items

- a. Management Reports
  - (1) [General Manager](#)
  - (2) [Communications](#)
  - (3) [Engineering](#)
  - (4) [Finance](#)
  - (5) [Information Technology](#)
  - (6) [Operations](#)
  - (7) [Talent Management](#)
  - (8) [Water Quality](#)
  - (9) [Report of Internal Audit Activities](#)
- b. [Strategic Planning Metrics Summary](#)
- c. Effluent Summary – [Monthly](#) and [Annual](#)
- d. Air Summary – [Monthly](#) and [Annual](#)
- e. [Emergency Declaration – 16th Street Emergency Repair](#)



January 19, 2021

Re: General Manager's Report

Dear Commissioners:

The first half of December was spent continuing the recovery and restoration efforts related to the November cyberattack. Everyone pulled together across the organization to get back to business in time to allow nearly everyone to relax a bit and enjoy the holidays at month's end.

The exception was the Customer Care staff. As the billing system came back online, bills and payments delayed by the cyberattack began processing and our systems and people struggled to keep up with unprecedented demand. Added to the billing challenges, the Customer Care staff had to develop a plan to reach out to customers eligible for the \$8.7 million in CARES Act money we received on December 7, 2020. By the end of December, the CARES Act notification effort was well underway with staff from across all departments stepping up to deliver door hanger notices to the nearly 60,000 eligible customers across the region.

The highlights of December's activities are detailed in the attached monthly reports. Due to the IT system issues related to the cyberattack, many reports include information from November that was inaccessible at the time.

- A. **Treatment Compliance and System Operations:** All plants met permit with the exception of the King William Treatment Plant (KWTP). The KWTP exceeded a weekly TKN concentration limit. The KWTP has not had issues with TKN in the past and is one of our best performing plants. This issue was traced back to the cap of a probe coming off and lodging in a jet aerator pump, reducing air volume and mixing. Staff was disappointed at the permit exceedance, but it highlights the difficulty in meeting all permitted parameters with such complex mechanical, chemical and biological systems. I take compliance for granted because our outstanding staff makes it look easy. It is events like this that remind me how tenuous compliance is and how well our staff does on a daily basis.
- B. **Internal Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted) with HRSD personnel:
1. Various meetings discussing CARES Act funding strategy
  2. Several meetings related to the cyberattack investigation
  3. One new employee orientation

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C. **External Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted):

1. A meeting with the Exmore Town Council and staff to discuss options for treatment of Exmore wastewater
2. The monthly meeting of the Virginia Association of Municipal Wastewater Agencies (VAMWA)
3. A mentoring session for the US Water Alliance
4. An executive training session conducted by the UNC Kenan-Flagler School of Business sponsored by NACWA
5. A meeting to review wastewater priorities with citizens on the Eastern Shore
6. The Virginia Forever quarterly board meeting
7. The James River Treatment Plant virtual open house

D. **Consent Decree Update:** The Commonwealth has signed off on the Fifth Amendment. The Amendment is at DOJ and EPA for final signatures before lodging with the Norfolk District Court. We continue to anticipate final signatures soon but do not expect the judge to approve until first quarter 2021.

The Effluent Summary for December (in the agenda package) included the total rainfall for the region in calendar year 2020. The North Shore (measured at Patrick Henry Field by NOAA) reported 75.47 inches of rain, more the 23 inches above the annual average of 52.14 inches. Small Communities was almost 15 inches above normal while South Shore was just under 6 inches above normal. Amazingly our interceptor system and treatment plants responded well, protecting public health and the environment in these very challenging conditions.

We are tracking a couple of pieces of legislation in Richmond during this session of the General Assembly. The proposed amendments to our enabling act were introduced by Delegate Rob Bloxom as [HB 2257](#) which was referred to the Committee on Counties, Cities and Towns. In this fast, virtual session anything can happen but we are doing our best to shepherd this through the process. I will keep you informed as this legislation moves forward.

The meeting next week will be another fully electronic meeting using Skype (or another virtual platform, if necessary) as we have done since April. The Governor has extended the declared state of emergency indefinitely and as such we will continue to meet in this fashion until that executive order is lifted.

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 (virtually) on Tuesday, January 26, 2020.**

Respectfully submitted,

Ted Henifin, P.E.  
General Manager

TO: General Manager  
 FROM: Director of Communications  
 SUBJECT: Monthly Report for December 2020  
 DATE: January 12, 2021





A. Publicity and Promotion

HRSD and/or SWIFT were mentioned or featured in 21 news stories on topics that included:

1. HRSD suffers ransomware attack
2. CARES Act relief funding for water and wastewater bills
3. Wastewater sampling to trace COVID-19 in communities

B. Social Media and Online Engagement

1. Metrics

Social Media Metrics December 2020				
*Imagine A Day Without Water October 21 METRIC	 FACEBOOK	 LINKEDIN	 TWITTER	 YOUTUBE
Number of Posts *number of published posts	28 <b>+4</b>	9 <b>+7</b>	20 <b>-6</b>	<b>3:27</b> average view duration
Number of Followers/Likes *total number of fans	1,386 <b>+137</b>	5,111 <b>+36</b>	534 <b>+28</b>	210 <b>+1</b>
Engagement *sum of reactions comments and shares	1017 <b>+402</b>	170 <b>+123</b>	18 <b>-5</b>	790 unique viewers <b>-123</b>
Traffic *total clicks on links posted	301 <b>+210</b>	263 <b>+145</b>	309 <b>+154</b>	3.7% click through <b>+0.2%</b>



## 2. Top posts on Facebook, Twitter and YouTube

### a. Top Facebook post

**HRSD**  
Published by Hootsuite | December 2, 2020

**UPDATE: HRSD BILLING REMAINS SUSPENDED DUE TO NOVEMBER 17 RANSOMWARE ATTACK**

VIRGINIA BEACH – HRSD Information Technology professionals and cybersecurity consultants continue working to safely restore business systems affected by a November 17 ransomware attack. As a result, HRSD and HRUBS billing remains suspended for all customers and account balances have not been updated. The HRSD phone and computer systems remain offline and inaccessible.

Customers will not incur late fee... See More

**UPDATE:**  
HRSD and HRUBS billing remains suspended for all customers and account balances have not been updated. The HRSD phone and computer systems remain offline and inaccessible.

WE APOLOGIZE FOR THE INCONVENIENCE AND APPRECIATE OUR CUSTOMERS' PATIENCE AS WE WORK TO RESTORE NORMAL BUSINESS OPERATIONS.

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

10,500 People Reached | 1,133 Engagements | [Boost Post](#)

15 Reactions | 8 Comments | 47 Shares

**Performance for Your Post**

10,500 People Reached

198 Reactions, Comments & Shares

63 Like	9 On Post	54 On Shares
3 Love	3 On Post	0 On Shares
20 Wow	4 On Post	16 On Shares
2 Sad	1 On Post	1 On Shares
58 Comments	12 On Post	46 On Shares
54 Shares	47 On Post	7 On Shares

935 Post Clicks

9 Photo Views	17 Link Clicks	909 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 post.

### b. Top Tweet

**Top Tweet** earned 1,059 impressions

FAQ's regarding HRSD's recent ransomware attack. We appreciate your continued understanding and patience as the investigation and full restoration continues. HRSD continues to provide wastewater treatment services to maintain public health and meet all environmental regulations. [pic.twitter.com/BQkwiYFsRj](https://pic.twitter.com/BQkwiYFsRj)

immediately related to our main user group, including the fact that in some customer information systems, HRSD has engaged the assistance of cybersecurity experts who are working around the clock to restore all HRSD business operation systems.

**Do you have a plan to make sure it does not happen again?** We are working with cybersecurity experts to develop protocols to prevent this from happening again.

**If HRSD was closed why do I still have to pay for the services?** Although our Customer Care Center was briefly closed, all HRSD wastewater treatment services and processes remain fully operational and HRSD continues to meet all regulatory requirements.

**If my personal information is at risk, will HRSD provide credit report monitoring for me?** We are still under investigation. We do not have evidence that indicates personal information has been breached but will contact you if we find that it has. Our third party vendor securely houses all payment information; therefore, this data should not be affected.

**I made payments during your outage. Will I need to bring or send you a receipt, canceled check or other proof of payment to make sure my account is updated?** You do not need to provide proof of payment, all payments that have been made will be posted as soon as the system is restored.

1 Reply | 1 Like

- c. Top YouTube Videos
  - (1) [The Wastewater Treatment Process](#)
  - (2) [HRSD Atlantic Treatment Plant Cambi Tour](#)
  - (3) [SWIFT Research Center: What is the Potomac Aquifer?](#)
  - (4) [What is Asset Management? Celebrating Infrastructure Week at HRSD](#)
  - (5) [James River Treatment Plant | HRSD SWIFT Facility Virtual Presentation](#)

### 3. Impressions and Visits

- a. Facebook: 51,793 page impressions, 41,868 post impressions reaching 38,003 users and Facebook engagement of 1,017 (591 reactions, 266 shares and 160 comments).
- b. Twitter: 16,100 tweet impressions; 245 profile visits and 33 mentions
- c. HRSD.com/SWIFTVA.com: 988 page visits
- d. LinkedIn Impressions: 5,079 page impressions and 5,422 post impressions
- e. YouTube: 790 views
- f. Next Door unique impressions: 1054 post impressions
- g. Blog Posts: 4
  - (1) [Which is better for the environment? A real Christmas tree or an artificial Christmas tree?](#)
  - (2) [The Best Ways to Keep Your Garbage Disposal Clean](#)
  - (3) [Why Use Cloth Diapers?](#)
  - (4) [What is it like to be a P3 Technician at HRSD? Interviews with Employees from our Water Quality Department!](#)
- h. Construction Project Page Visits – 1150 total visits (not including direct visits from home page, broken down as follows:
  - (1) 447 visits to individual pages
  - (2) 703 to the status page

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

- 1. News Releases/Traffic Advisories/Construction Notices: 6 (2 news releases, 3 construction notices, one Commission meeting notice)
- 2. Advertisements: 0

3. Project Notices: 5 (via door hanging and mailings, reaching approximately 146 residents)
4. Project/Community Meetings: two (held virtually)
  - a. Presentation/virtual open house for James River Treatment Plant (JRTP) SWIFT Facility – (December 1 – 31)
  - b. Live Zoom virtual Q & A for JRTP SWIFT Facility (15 attendees from the community)
5. New Project Web Pages /Videos: Three
  - a. Phoebus Area Sanitary Sewer Extension
  - b. South Norfolk Pump Stations and Sanitary Sewer Replacement Project
  - c. Larchmont Area Sanitary Sewer Improvements

D. Special Projects and Highlights

1. Director, together with the SWIFT Chief of Design and Construction met virtually with members of the Friends of Riverview Farm Park to answer questions about full scale SWIFT development and construction at the James River Treatment Plant.
2. Director worked with reporters from several media outlets to provide information related to HRSD's business operation restoration efforts following the November ransomware attack and to respond to inquiries about billing errors as a result of the attack.
3. Director and staff met virtually with City of Newport News officials and members of the public to answer questions following the virtual Open House for the James River Treatment Plant SWIFT implementation.
4. Staff participated in the HRPDC askHRGreen Water Awareness meeting.

E. Internal Communications

1. Director participated in the following internal meetings and events:
  - a. Weekly Leadership and COVID-19 meetings
  - b. Daily senior leadership updates through HRSD ransomware attack
  - c. SWIFT Industry Outreach Day planning meetings
  - d. Stakeholder communication planning, website content review, progress meetings and locality coordination planning meetings for the Larchmont Sanitary Sewer Improvements Program
  - e. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
2. Director conducted biweekly communications department status meetings and weekly one-on-one and team check-in meetings.
3. Staff attended project progress meetings and presentation and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities (all virtual unless otherwise noted):
  - a. HRSD Classroom – 534 people reached; 9 clicks; 12 reactions, comments and shares Amazing
  - b. FOG Coloring Page: Grease Grinch Campaign – 488 people reached; 8 clicks; 10 reactions, comments and shares
  - c. The Magic of Wastewater Treatment – 515 people reached; 49 clicks; 20 reactions
  - d. SWIFT Virtual Tour – four external tours taken
2. Number of Community Partners: 3
  - a. Virginia Beach Public Utilities
  - b. askHRGreen/HRPDC
  - c. Kings Forest Civic League
  - d. Lake Whitehurst West Civic League
3. Additional Activities Coordinated by Communications Department: 0
4. Monthly Metrics Summary

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>December 2020</b>
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	5.17
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	39.42
M-5.2	Educational and Outreach Events	Number	3
M-5.3	Number of Community Partners	Number	3

Respectfully,

Leila Rice, APR  
Director of Communications

TO: General Manager  
FROM: Director of Engineering  
SUBJECT: Engineering Monthly Report for December 2020  
DATE: January 13, 2021

A. General

1. Capital Improvement Program (CIP) spending for the fourth month of Fiscal Year (FY) 2021 was below the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	7.78	52.04
Plan	22.00	87.70

CIP spending for the fifth month of FY2021 was above planned the planned spending target:

CIP Spending (\$M):

	Current Period	FYTD
Actual	35.02	87.06
Plan	21.50	109.20

A one-time payment (\$15M) to the City of Norfolk for the property adjacent to the VIP Treatment Plant accounted for a part of this increase in actual CIP spending.

2. With HRSD computer networks down for portions of both November and December, Engineering Department staff had limited ability to access and process information required to handle many of our normal business practices. Temporary measures were used to keep information moving and staff continued to communicate with the consultants, contractors and vendors doing business with HRSD. A professional services selection and one construction contract bid were delayed. Lost electronic files were reported by a few staff members. By the end of December, almost all staff were able to access needed data and began to address unresolved issues and re-establish critical business processes.

B. Asset Management Division

1. Preparation of the HRSD Business Continuity Plan continued in December. Plan preparation began earlier in the year, but due to the many challenges faced over the year, the implementation plan was reviewed. A presentation will be made to the HRSD QST in January to review options and decide a path forward. After-action interviews will be conducted with key internal stakeholders to learn lessons that can be applied to the plan.
2. The Magruder-Mercury Boulevard Force Main was recently inspected as part of the

existing force main assessment effort. This section of pipe is planned for replacement, but the exact limits of the work are under review using an inspection system known as the Smartball technology. This technology has been used on other sections of pipe with varying results. An insertion and retrieval location are needed to install the Smartball and effectively inspect the pipe. This device provides information related to internal corrosion and gas pockets possibly located at unvented high-spots. Using this inspection technology along with external corrosion inspection, the limits of pipe to be replaced can be more accurately determined. For certain CIP projects, this is the first step after the consultant is selected to assist with providing a more accurate scope for the project. Although this assessment tool cannot be used on all projects, certain projects can benefit from this technology and HRSD will continue to look for ways to better understand the condition and risk of failure for existing pipelines.

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

1. The Surry Hydraulic Improvements and Interceptor Force Main construction continue. The project was planned in two phases to expedite the work. Phase 1 work is nearing completion. All the interceptor force main has been installed which includes 13,000 LF of 4-inch pipe and 5,000 LF of 6-inch pipe. Four connections to this new force main are still required and will occur once the two new pump stations are completed. Phase 2 work is also under construction. Approximately 15,000 LF of 8-inch pipe has been installed to date and work on the four new pump stations is underway. The Design-Build Team is using five separate crews to expedite this project. Approximately 20 easements still need to be acquired. Negotiations continue with these property owners.
2. The Providence Road Off-Line Storage Facility construction continues. The equalization tank has been installed and successfully passed all leak testing. The tank deluge system and the associated pump station are also under construction. Team Pain, the skate park subcontractor, has completed all skate park facilities on the tank and is now focused on the skate park adjacent to the tank. Due to some weather and COVID-19 issues, the substantial completion date has slipped to April 2021. Plans are underway for a Park Re-Opening event later this summer. The Design-Build Team continues to work closely with HRSD and the City of Virginia Beach staff to coordinate the project and outreach with the public.
3. The James River SWIFT project continues. The design firm, Earth Data, began the final design of the recharge and monitoring wells. Land acquisition and approvals for the work located on the Riverview Farm Park is nearing completion. A virtual open house was provided through the month of December and two live virtual meetings were recently held to update citizens on project details. The engineer responsible for the proposed park improvements, VHB, began their work and a kick-off meeting is scheduled for January 8. Negotiations with the Design-Build Team continues with a selection to be recommended to the Commission at its January Meeting.

D. Planning & Analysis Division

1. The Geographic Information System (GIS) staff worked with the Customer Care Division staff to develop a mobile application to assist with the COVID-19 CARES Act Relief Program door tagging. The application consisted of a map-based system to locate the addresses for 68,000 customers across the region. Eighty HRSD staff helped with this large and fast-paced effort.

2. As the closure of the Chesapeake-Elizabeth Treatment Plant nears, staff have completed hydraulic modeling of the interceptor system to address future force main pressures. This analysis will be used to set a new Hydraulic Grade Line Policy for future connections and pump station hydraulic design criteria. This revised policy will be implemented once the plant closes later in 2021.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 4
  - a. 12/02/2020 – Virtual Public Outreach with the citizens of Newport News Riverview Farm Park on the proposed James River SWIFT project.
  - b. 12/15/2020 – VWEA/ VA AWWA Workshop on Abstract Writing for the upcoming WaterJAM Conference.
  - c. 12/16/2020 – Virtual Public Open House with Newport News Parks and Recreation Department related to the land acquisition as part of the James River SWIFT project.
  - d. 12/16/2020 – Virtual Meeting with Olson Middle School to discuss water and wastewater issues.
  
2. Number of Community Partners: 4
  - a. City of Newport News
  - b. Virginia Water Environment Association/Virginia American Waterworks Association
  - c. Newport News Parks and Recreation Department
  - d. Olson Middle School
  
3. Number of Research Partners: 0
  
4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	November 2020
M-1.4a	Total Training Hours per Full Time Employee (44) - Current Month	Hours / #FTE	1.06
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	8.81
M-5.2	Educational and Outreach Events	Number	2
M-5.3	Number of Community Partners	Number	2
M-5.4	Number of Research Partners	Number	0

Item #	Strategic Planning Measure	Unit	December 2020
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<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>December 2020</b>
M-1.4a	Total Training Hours per Full Time Employee (44) - Current Month	Hours / #FTE	2.69
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	11.50
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	4
M-5.4	Number of Research Partners	Number	0

*Bruce W. Husselbee, P.E.*

Bruce W. Husselbee, P.E.



TO: General Manager  
FROM: Director of Finance  
SUBJECT: Monthly Report for December 2020  
DATE: January 13, 2021

A. General

1. Due to the HRSD ransomware attack and system outage, HRSD's bills were delayed for several weeks. Once business operating systems were restored, Customer Care and Information Technology staff worked diligently to process the delayed billing files. As a result of the four-week delay, customers received their November and December bills within the same month, causing significant confusion. The call center began receiving customer inquiries and the daily call volume increased to nearly three times the normal volume, even with several media blasts to describe the issues. This caused customer wait times of over an hour and many customers abandoning their calls prior to speaking with a representative. Most of the calls are related to the billing issues.

Most frequent inquiries:

- Receiving two bills in less than 21 days
  - Bill message "Payment Due Immediately" in bold red lettering (the billing system added this on some December bills). This will be changed to "Previous Balance" in non-bold black lettering.
  - Payment due dates and late fees. Payments for November and December HRSD or HRUBS bills can be made as late as January 31, without penalty.
  - Customers had not received their bill(s) due to unprecedented volume increases and nationwide delays from United States Postal Services (USPS) over the holiday season. HRSD bills are mailed from our vendor's Michigan printing center, but typically takes about two to three days to arrive based on HRSD's testing. We understand that some bills took three to four weeks to arrive.
2. HRSD took several measures in order to manage the surge in call volume. HRSD provided multiple news releases and social media blasts to provide more information to customers. Staff revised the Interactive Voice Response (IVR) messages throughout the phone system to provide information regarding the billing disruption. The IVR messages are played while the customer is navigating the IVR system. Apparently, when customers were unable to get through due to the long wait times, they started calling our third-party call center that was set up specifically for the Coronavirus Aid, Relief and Economic Security (CARES) Act. HRSD provided updated Frequently Asked Questions for the third-party call center to assist their staff in handling billing related calls. We temporarily reallocated Procurement staff with call center experience to the Call Center. Staff continues to manage the increased interactions while providing excellent service to our customers. These measures are working, and we expect a reduction of customer inquiries as we resume regular billing operations.
  3. In early January, HRSD received \$8.7 million in CARES Act funding to help customers experiencing economic hardships get back on track. CARES Act funding information for customers is available on the HRSD website, social media and through door hanger notices. HRSD and locality staff placed approximately 60,000 door hanger notices on residential accounts in three weeks, which is a tremendous achievement. The tags

encourage COVID-19 impacted customers to apply for relief either online or through our third-party call center contracted for this effort. HRSD has received more than 25,000 attestations and has begun reviewing them to confirm eligibility. The first wave of CARES Act funding will be applied to customer accounts in mid-January.

4. As a reminder, Wastewater Operating Revenues reflect billed amounts, not received. As a result of the ransomware billing delay, our Days Cash on Hand (DCOH) is lower in December until customer payments are received, but it is well within our policy limits. In addition, we were unable to request reimbursement from the Virginia Resources Authority (VRA) for our clean water loan projects due to the system outage, but this should be rectified in January. DCOH is also lower due to CIP spending and the \$15 million Lambert's Point land closing on December 21, 2020, but Adjusted Days Cash on Hand was not impacted from this transaction. The Reserve Fund, which was created after the Debt Service Coverage Reserve Fund was dissolved, was used as planned.
5. With the system outage and delayed VRA reimbursement, staff drew \$10 million from our existing Line of Credit (LOC) to pay for capital project expenses. This was to preserve liquidity since there were so many unknowns in December. We expect to use our monthly PAYGO cash contribution, clean water loans and our LOC to fund the capital program for near future.
6. Billed Wastewater and Surcharge Operating Revenues are generally consistent with last year. Water consumption has rebounded on a cumulative basis, but the unevenness of the data trend could be skewed by localities' third-party meter reading. Indirect Discharge revenues (hailed septic waste from restaurants and residential septic tanks) was also impacted by the ransomware as billing was delayed and the scale system crashed. Hauled waste volumes look similar to previous years, even with the pandemic, so we expect this line item to be within budget in the next few months. Facility Charge revenue remains strong as single-family housing permits are higher on a year-over-year basis. Home sales are the second highest recorded since 2005 as companies' work-from-home policies have workers fleeing cities for the suburbs like Hampton Roads. Personal Services are slightly higher than budget as December had three pay periods. Fringe benefits is lower due to lower medical expenses. Other operating expenses remain under budget, which we expect to continue through the end of the fiscal year.

B. Interim Financial Report

1. Operating Budget for the Period Ended December 31, 2020

	Amended Budget	Current YTD	Current YTD as % of Budget (50% Budget to Date)	Prior YTD as % of Prior Year Budget
<b>Operating Revenues</b>				
Wastewater	\$ 312,218,000	\$ 162,743,870	52%	52%
Surcharge	1,522,000	794,835	52%	54%
Indirect Discharge	3,200,000	1,071,207	33%	59%
Fees	3,020,000	791,807	26%	53%
Municipal Assistance	700,000	277,319	40%	41%
Miscellaneous	1,165,000	570,732	49%	76%
<b>Total Operating Revenue</b>	<b>321,825,000</b>	<b>166,249,770</b>	<b>52%</b>	<b>52%</b>
<b>Non Operating Revenues</b>				
Facility Charge	6,160,000	3,762,410	61%	56%
Interest Income	1,510,000	410,596	27%	72%
Build America Bond Subsidy	2,292,000	-	0%	47%
Other	610,000	228,843	38%	43%
<b>Total Non Operating Revenue</b>	<b>10,572,000</b>	<b>4,401,849</b>	<b>42%</b>	<b>59%</b>
<b>Total Revenues</b>	<b>332,397,000</b>	<b>170,651,619</b>	<b>51%</b>	<b>52%</b>
Transfers from Reserves	28,765,873	28,768,381	100%	50%
<b>Total Revenues and Transfers</b>	<b>\$ 361,162,873</b>	<b>\$ 199,420,000</b>	<b>55%</b>	<b>52%</b>
<b>Operating Expenses</b>				
Personal Services	\$ 60,952,502	\$ 32,107,899	53%	51%
Fringe Benefits	24,945,953	11,940,621	48%	50%
Materials & Supplies	9,663,402	3,618,553	37%	43%
Transportation	1,579,254	409,712	26%	38%
Utilities	13,019,361	5,464,380	42%	45%
Chemical Purchases	10,500,337	3,824,575	36%	41%
Contractual Services	51,831,008	18,318,127	35%	34%
Major Repairs	13,076,208	2,949,852	23%	25%
Capital Assets	867,079	233,051	27%	20%
Miscellaneous Expense	3,721,391	1,613,240	43%	80%
<b>Total Operating Expenses</b>	<b>190,156,495</b>	<b>80,480,010</b>	<b>42%</b>	<b>44%</b>
<b>Debt Service and Transfers</b>				
Debt Service	61,407,822	34,449,660	56%	59%
Transfer to CIP	109,338,556	61,861,998	57%	50%
Transfer to Risk management	260,000	130,002	50%	50%
<b>Total Debt Service and Transfers</b>	<b>171,006,378</b>	<b>96,441,660</b>	<b>56%</b>	<b>54%</b>
<b>Total Expenses and Transfers</b>	<b>\$ 361,162,873</b>	<b>\$ 176,921,670</b>	<b>49%</b>	<b>49%</b>

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 December 31, 2020

**HRSD - RESERVE AND CAPITAL ACTIVITY** December 31, 2020

	General Reserve				Capital	
	General	Debt Service	Risk Mgmt Reserve	Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Unrestricted	Unrestricted	Unrestricted	Restricted
<b>Beginning - July 1, 2020</b>	<b>\$ 198,874,822</b>	<b>\$ 28,154,541</b>	<b>\$ 3,759,535</b>	<b>\$ 15,266,324</b>	<b>\$ 22,209,680</b>	<b>\$ -</b>
<b>Current Year Sources of Funds</b>						
<b>Current Receipts</b>	145,890,975					
Line of Credit						10,000,000
VRA Draws					16,856,068	
Bond Proceeds (includes interest)					14,385,444	
Days Cash on Hand Transfer In					62,742,878	
Transfers In			130,002			
<b>Sources of Funds</b>	<b>145,890,975</b>	<b>-</b>	<b>130,002</b>	<b>-</b>	<b>93,984,390</b>	<b>10,000,000</b>
<b>Total Funds Available</b>	<b>\$ 344,765,797</b>	<b>\$ 28,154,541</b>	<b>\$ 3,889,537</b>	<b>\$ 15,266,324</b>	<b>\$ 116,194,070</b>	<b>\$ 10,000,000</b>
<b>Current Year Uses of Funds</b>						
Cash Disbursements	118,301,112				105,369,274	10,000,000
Days Cash on Hand Transfer Out	14,385,444					
Transfers Out	47,606,556			15,266,324		
<b>Uses of Funds</b>	<b>180,293,112</b>	<b>-</b>	<b>-</b>	<b>15,266,324</b>	<b>105,369,274</b>	<b>10,000,000</b>
<b>End of Period - December 31, 2020</b>	<b>\$ 164,472,685</b>	<b>\$ 28,154,541</b>	<b>\$ 3,889,537</b>	<b>\$ -</b>	<b>\$ 10,824,796</b>	<b>\$ -</b>
Unrestricted Funds	<b>\$ 179,187,018</b>					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended December 31, 2020

**HRSD - PROJECT ANALYSIS**

December 31, 2020

Classification/ Treatment Service Area	Appropriated Funds	Expenditures	Expenditures	Total		
		prior to 7/1/2020	Year to Date FY2021	Project Expenditures	Encumbrances	Available Funds
Administration	31,697,240	15,313,091	7,220,844	22,533,935	4,949,176	4,214,129
Army Base	155,448,800	123,095,232	-	123,095,232	2,368,191	29,985,377
Atlantic	111,997,296	76,556,039	1,728,667	78,284,706	6,237,253	27,475,337
Boat Harbor	257,116,297	35,978,245	2,587,393	38,565,638	18,572,256	199,978,403
Ches-Eliz	164,257,309	67,772,620	23,627,220	91,399,840	32,070,265	40,787,204
Eastern Shore	14,000,000	-	-	-	91,500	13,908,500
James River	262,016,867	38,365,502	2,763,722	41,129,224	3,000,575	217,887,068
Middle Peninsula	60,161,276	10,777,028	1,344,082	12,121,110	6,521,846	41,518,320
Nansemond	346,762,785	22,676,881	7,462,286	30,139,167	15,308,699	301,314,919
Surry	45,747,598	10,880,964	4,053,465	14,934,429	24,640,363	6,172,806
VIP	297,032,874	178,710,395	2,797,572	181,507,967	3,072,571	112,452,336
Williamsburg	34,145,622	17,684,308	6,515,481	24,199,789	7,725,725	2,220,108
York River	58,404,843	25,855,420	1,901,892	27,757,312	3,062,117	27,585,414
General	666,812,050	155,979,255	25,058,555	181,037,810	44,383,652	441,390,588
	\$ 2,505,600,857	\$ 779,644,980	\$ 87,061,179	\$ 866,706,159	\$ 172,004,189	\$ 1,466,890,509

5. Debt Management Overview

**HRSD - Debt Outstanding (\$000's)**

December 31, 2020

	Principal			Interest	
	Nov 2020	Principal Payments	Principal Draws	Dec 2020	Payments
<b>Fixed Rate</b>					
Senior	202,866	-	-	202,866	-
Subordinate	556,235	(1,133)	-	555,102	(187)
<b>Variable Rate</b>					
Subordinate	50,000	-	-	50,000	(4)
<b>Line of Credit</b>					
<b>Total</b>	\$ 809,101	\$ (1,133)	\$ -	\$ 807,968	\$ (191)

**HRSD- Series 2016VR Bond Analysis**

January 1, 2021

	SIFMA Index	HRSD	Spread to SIFMA
	Maximum	4.71%	4.95%
Average	0.47%	0.54%	0.07%
Minimum	0.01%	0.01%	0.00%
As of 01/01/21	0.09%	0.08%	-0.01%

## 6. Financial Performance Metrics for the Period Ended December 31, 2020

### HRSD - UNRESTRICTED CASH

December 31, 2020

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

		Days Cash on Hand	Days Cash on Hand
<b>Total Unrestricted Cash</b>	<b>\$ 179,187,018</b>		<b>344</b>
Risk Management Reserve	\$ (3,889,537)	(8)	336
Reserve	\$ -	-	336
Capital (PAYGO only)	\$ (10,824,796)	(20)	316
<b>Adjusted Days Cash on Hand</b>	<b>\$ 164,472,684</b>		<b>316</b>

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

December 31, 2020

Primary Source	Beginning	YTD	YTD	YTD	Ending	Allocation of	Credit Quality	Current
	Market Value				Market Value			
	July 1, 2020	Contributions	Withdrawals	Income Earned	December 31, 2020			Yield
BAML Corp Disbursement Account	7,339,242	246,543,833	241,050,764	13,093	12,845,404	9.8%	N/A	0.55%
VIP Stable NAV Liquidity Pool	178,660,390	10,000,000	70,000,000	171,769	118,832,159	90.2%	AAAm	0.14%
<b>Total Primary Source</b>	<b>\$ 185,999,632</b>	<b>\$ 256,543,833</b>	<b>\$ 311,050,764</b>	<b>\$ 184,862</b>	<b>\$ 131,677,563</b>	<b>100.0%</b>		

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

Secondary Source	Beginning	YTD	YTD	YTD	Ending	LTD	Yield to
	Market Value				Market Value		
	July 1, 2020	Contributions	Withdrawals	Income Earned & Realized G/L	December 31, 2020	Mkt Adj	at Market
VIP 1-3 Year High Quality Bond Fund	64,899,667	-	6,495	440,377	65,101,937	1,931,500	0.18%
<b>Total Secondary Source</b>	<b>\$ 64,899,667</b>	<b>\$ -</b>	<b>\$ 6,495</b>	<b>\$ 440,377</b>	<b>\$ 65,101,937</b>	<b>\$ 1,931,500</b>	

VIP 1-3 Year High Quality Bond Fund out performed ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.03% in the month of December.

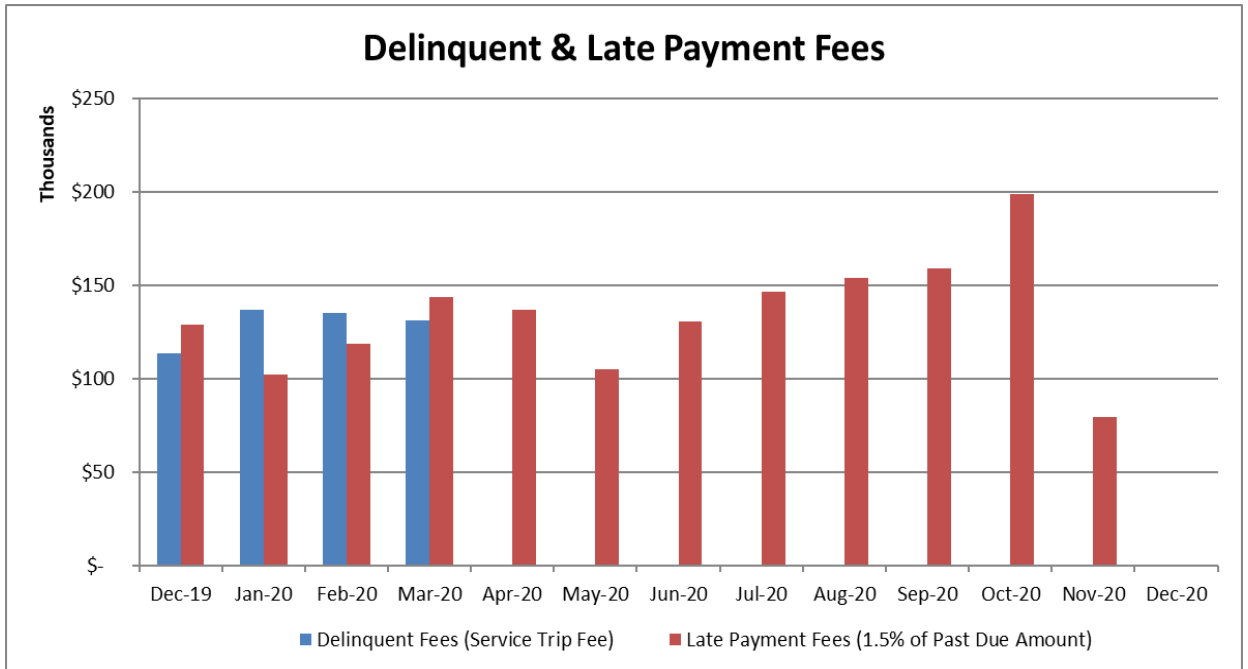
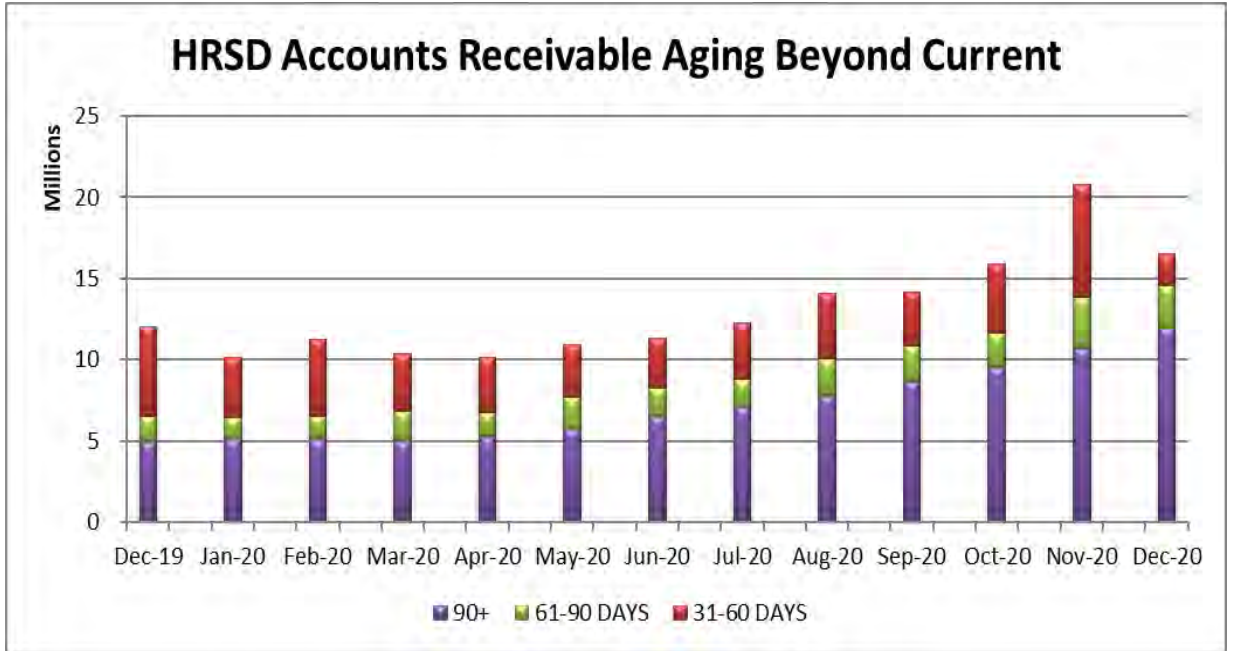
	Total	Fund Alloc
Total Primary Source	\$ 131,677,563	66.9%
Total Secondary Source	\$ 65,101,937	33.1%
<b>TOTAL SOURCES</b>	<b>\$ 196,779,500</b>	<b>100.0%</b>

## 7. Summary of Billed Consumption

Summary of Billed Consumption (,000s ccf)							
Month	FY2021 Cumulative Budget Estimate	FY2021 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2020 Actual	From FY2020	Cumulative 3 Year Average	From 3 Year Average
July	5,086	4,751	-6.6%	5,114	-7.1%	5,045	-5.8%
Aug	10,047	9,459	-5.8%	9,944	-4.9%	10,026	-5.7%
Sept	14,477	14,335	-1.0%	14,354	-0.1%	14,389	-0.4%
Oct	18,951	18,863	-0.5%	18,952	-0.5%	18,966	-0.5%
Nov	22,937	21,192	-7.6%	23,092	-8.2%	23,160	-8.5%
Dec	27,268	27,614	1.3%	27,518	0.3%	27,383	0.8%
Jan	31,818	-	N/A	32,101	N/A	31,920	N/A
Feb	36,287	-	N/A	36,005	N/A	36,236	N/A
March	39,495	-	N/A	40,108	N/A	40,223	N/A
Apr	43,441	-	N/A	44,246	N/A	44,387	N/A
May	47,762	-	N/A	48,397	N/A	48,604	N/A
June	52,222	-	N/A	52,535	N/A	52,869	N/A

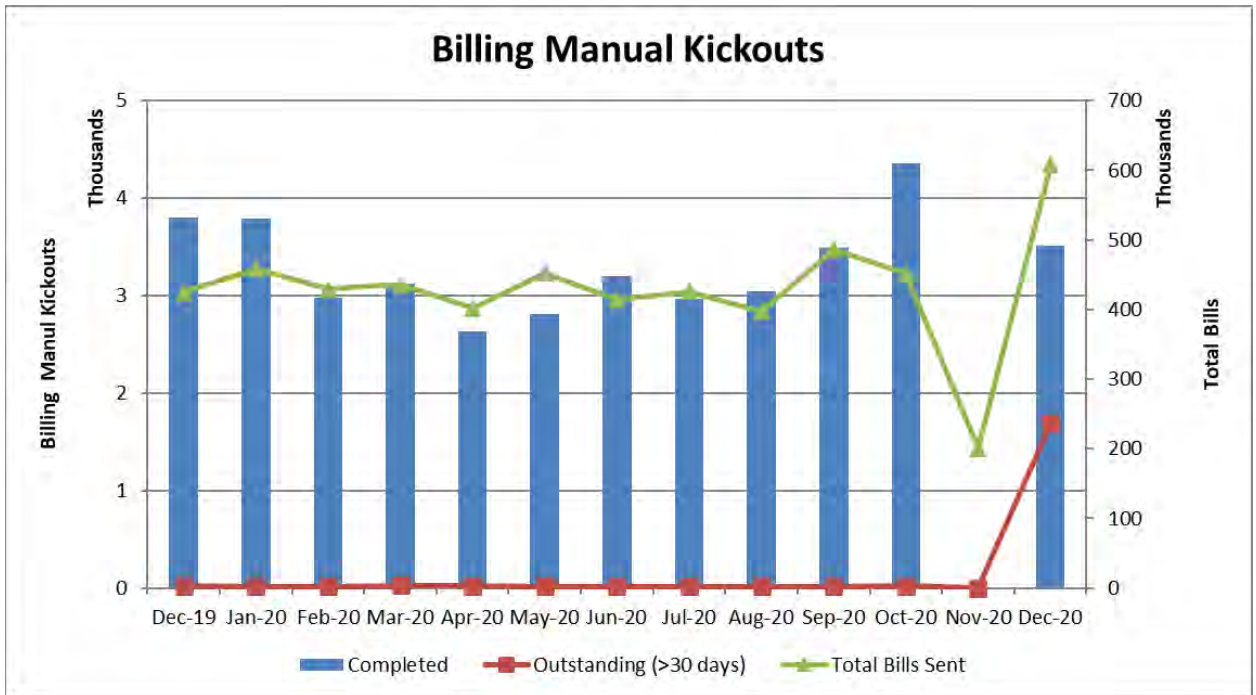
C. Customer Care Center

1. Accounts Receivable Overview

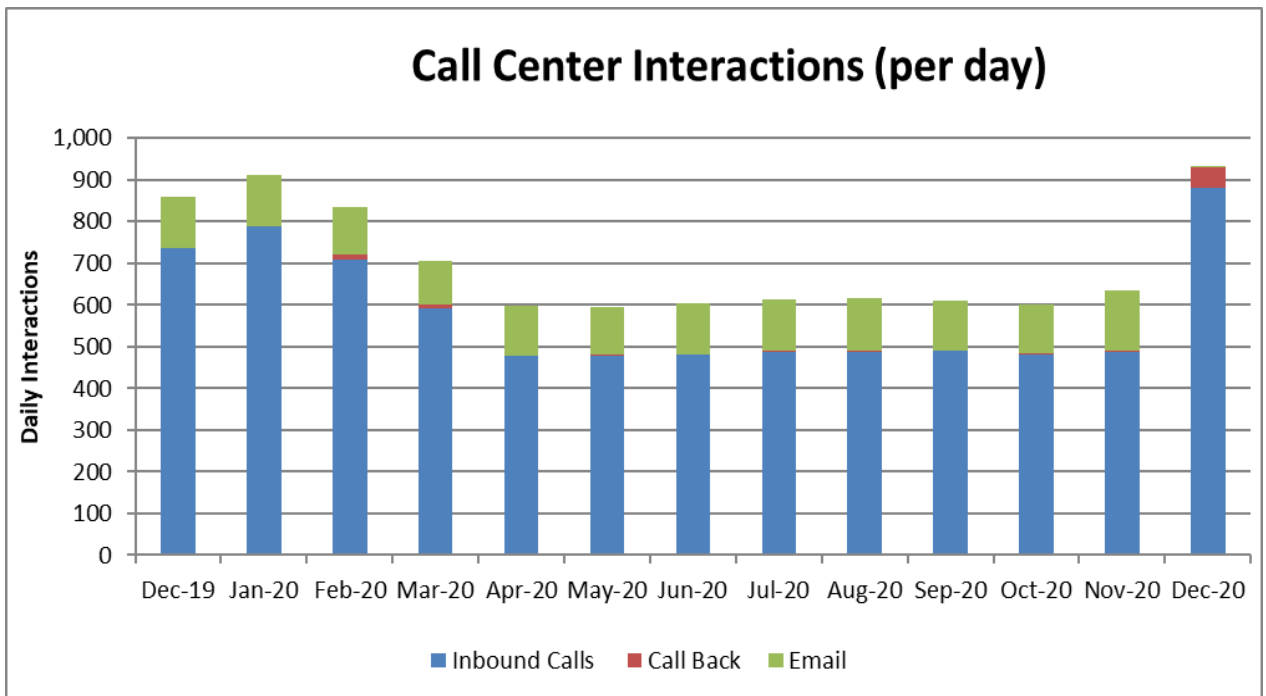


Apr-Dec 20 Field Activity was suspended late March in response to COVID-19

## 2. Customer Care Center Statistics



Nov Completed data not available due to Ransomware attack



Customer Interaction Statistics	Jul	Aug	Sep	Oct	Nov	Dec
Calls Answered within 3 minutes	97%	98%	95%	95%	86%	30%
Average Wait Time (seconds)	0:26	0:17	0:28	0:25	0:37	378
Calls Abandoned	3%	3%	3%	3%	8%	28%



D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	3	One transaction was caught by the card holder and two transactions were caught by the bank immediately.
September	3	Three caught by card holder
October	2	Caught by bank immediately
November	0	
December	0	
<b>Total</b>	<b>8</b>	

\***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 2020
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	0.33
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	5.14
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	109%
	Liquidity	Days Cash on Hand	*
	Accounts Receivable (HRSD)	Dollars	\$31,097,462
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	34%

\* Not able to generate due to system outage.

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>December 2020</b>
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	0.38
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	5.52
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	109%
	General Reserves	Percentage of Operating Budget less Depreciation	101%
	Liquidity	Days Cash on Hand	344 Days
	Accounts Receivable (HRSD)	Dollars	\$45,708,907
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	26%

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 and December 2020  
DATE: January 13, 2021

A. General

1. HRSD experienced a ransomware cyberattack the week before Thanksgiving. The attack began afterhours, prompting several shift employees to contact the on-call ITD systems engineer and reporting malfunctioning computers. The ransomware encrypts data and system files throughout the targeted network. A message then appears on the infected systems indicating the ransomware's presence, as well as displaying instructions on how to contact the attacker, pay the ransom, and receive decryption keys.

An initial assessment of the situation confirmed the presence of the ransomware and the continued spreading of the malware. As a result, hundreds of computers and network servers were infected and files on them encrypted. Within hours of the first caller's contact, an incident was declared, and IT staff were onsite physically disconnecting internal and external connections to prevent further infection and data encryption. Within 24 hours, HRSD's Cybersecurity Insurance provider was contacted, several third-party cybersecurity response and remediation resources were engaged, and the ITD Team established around-the-clock support for the containment and restoration efforts.

Our outside counsel engaged CrowdStrike, a global leader in cybersecurity incident management, coordinated the response, containment, and removal efforts. Through our counsel, HRSD ITD assisted CrowdStrike in these efforts, while formulating and executing the remediation plan to restore network services as quickly as possible.

2. Following recovery from the recent ransomware incident, staff resumed project work on the SharePoint site buildout, preparing for the implementation of Microsoft cloud-based applications, including, OneDrive, Teams, SharePoint Online, and Power BI.

B. Strategic Planning Metrics Summary

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

3. Metrics Summary:

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>November and December 2020</b>
M-1.4a	Training During Work Hours Per Full-Time Employee (50) – Current Month	Total Training Hours / # FTE	0.44
M-1.4b	Total Training During Work Hours Per Full-Time Employee (50) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	7.45
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 December 2020  
DATE: January 11, 2021

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

Staff across the department, but most notably staff from the North and South Shore Interceptor Systems Divisions provided support toward the CARES Act door tagging effort this month.

2. South Shore (SS) Interceptor Systems

- a. Staff repaired a four-inch potable water line at the Virginia Initiative Treatment Plant (VIP).
- b. Staff operated a system valve to assist the City of Chesapeake in two force main repairs; one on Camelot Boulevard and one on Greenbrier Parkway.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

Staff finished installing the new chain and flight mechanisms on the #1 primary clarifier and returned it to service.

2. Atlantic Treatment Plant (ATP)

- a. The Thermal Hydrolysis Process (THP) is fully operational. All the solids from the plant continue to be processed through the THP. The Acid Phase digester is now offline and will be cleaned and used for solids storage in an emergency.
- b. Staff continued the disinfecting equipment downstream of the THP. Digester 3 recirculation piping and one of the feed lines from the DSST (Digested Solids Storage Tank) to the Dewatering building were completed. This is needed to ensure Class A Biosolids.
- c. Staff also cleaned Digester #4. It will be disinfected once the cleaning is complete.
- d. Staff cleaned the primary influent channel for the Primary Clarifiers #1-4 in anticipation of the closure of the Chesapeake-Elizabeth Treatment Plant.
- e. Contractors repaired a section of weir on Secondary Clarifier 3 that had cracked. This was the third repair made to the same Clarifier in the last few years. Staff is currently evaluating whether the weir should be replaced.

3. Boat Harbor Treatment Plant (BHTP)

Solids dewatering efficacy decreased significantly this month, hampering solids settling in the primary and secondary clarifiers. Staff began jar testing different polymers, adjusted the centrifuges, and inspected and cleaned process piping to improve dewatering.

4. Chesapeake-Elizabeth Treatment Plant (CETP)

Staff rebuilt two chemical feed pumps that had leaking oil seals, removed slag from incinerator #1, and replaced the pump on auto sampler #2.

5. James River Treatment Plant (JRTP)

- a. Staff repaired the #3 and #5 return activated solids pumps, replaced a contact tank sample pump and cleaned off the nitrified recycle line screen on integrated fixed film activated solids tank #6.
- b. Staff continued work on the centrate pipeline from the centrate pump vault to the centrate equalization tanks. When complete, the new pipeline will deliver centrate from the centrifuges to the equalization tanks by gravity instead of pumping. Eliminating pumping may reduce the formation of struvite in the pipeline.

6. Nansemond Treatment Plant (NTP)

- a. On December 21, a hot water line broke resulting in an unrecovered 50-gallon reportable spill of chemically treated boiler water.
- b. Staff completed installation and testing of the new big bubble mixing system in aeration tank #6. The purpose of the system is to keep solids mixed in the tank when diffused air flow is low.
- c. SWIFT Research Center (SWIFT RC)
  - (1) The total volume of SWIFT recharge into the Potomac aquifer for the month of December was 11.9 MG (38% Recharge Time).
  - (2) On December 25, the backflush pump failed. While the pump is being repaired staff have initiated efforts to perform a rehabilitation of the recharge well. Recharge operations and the Granulated Activated Carbon Vessels are expected to be offline for about 30 days.

7. Virginia Initiative Plant (VIP)

- a. Staff continued rehabilitation work on one primary clarifier, replaced a grit slurry pump, a primary solids pump reduction gear and a thickened waste tank recirculation pump.
- b. Staff and a contractor replaced the local control panel for an aeration tank blower. Staff will program the controller for more efficient remote control through the distributive control system (DCS).

8. Williamsburg Treatment Plant (WBTP)

The contractor for the WBTP Switchgear Project continued work on outfitting the switchgear generator building with mechanical and electrical equipment, piping, conduit, and wire.

9. York River Treatment Plant (YRTP)

- a. Staff completed modifications to the #3 and #4 aeration tanks' air supply systems. Modifications included installation of air purge mixers and actuating valves which will be used to control air at different cells for improved nutrient removal.
- d. The contractor started work on replacing approximately 300 linear feet of corroded 60-inch headworks effluent pipe from the headworks to the primary clarifier distribution chamber. Grit was removed from the effluent end of the pre-aeration grit tanks.

10. Incinerator Operations Events Summary

- a. Total Hydrocarbon (THC) monthly averages (not to exceed 100 parts per million) were met by all five plants with incinerators for the months of November and December. Certified THC valid data captured (in percent) for November and December varied across the multiple hearth incineration (MHI) plants based on system downtime and the loss of some data due to the malware event.
- b. There were three deviations from the required minimum operating parameters and one minor (less than 60 minute) non-reportable bypass event.

C. Small Communities (SC)

1. Middle Peninsula Small Communities Treatment and Collections

a. West Point Treatment Plant (WPTP)

Significant rainfall caused flow to exceed 95 percent of design capacity for the third month in a row. There are no plans to increase the plant capacity at this time as staff continues to focus on inflow and infiltration improvements in the collection system.

b. King Williams Treatment Plant (KWTP)

There was a Weekly TKN Concentration permit exceedance the week of December 20 with an average concentration of 4.64 milligrams per liter (mg/L), beyond the permitted value of 4.5 mg/L. Higher than normal ammonia values were encountered during process control testing on Tuesday, December 22. Though operational parameters were within normal controls, steps were taken to secure wasting to temporarily increase solids concentrations and retention times. After a vast amount of troubleshooting the issue, staff found a probe cover cap semi-lodged in the aerated mixing pump for one of the two aeration basins; unfortunately, the cap was wedged in so as not to cause the pump to fault out or generate any alarms. Treatment slowly recovered after the issue was resolved.

c. Urbanna Treatment Plant (UBTP)

Impellers at the Bonner Street PS (terminal station pumped to the plant) were upsized and installed this month in order to increase flow output.

2. Small Communities – Surry Systems

On December 24 a severe thunderstorm inundated the service area and resulted in an overflow of unknown quantity at Dendron PS 1B.

D. Electrical & Instrumentation (E&I)

Staff responded to an after-hours call where the main circuit breaker of the headworks motor control center (MCC), along with the building main circuit breaker were both tripped at YRTP. Investigation showed there was an arc flash incident caused by flakes from the coating on the main copper bus falling onto a lower bus and short circuiting. Although, the bus was cleaned and power was restored, the bus shows signs of oxidation, deterioration and pitting throughout the MCC. In addition, it has lost its ability to carry full amperage and staff believes the equipment should be replaced as soon as possible and is including this request on the January Commission agenda.

E. Water Technology and Research

HRSD initiated a program to replace and relocate existing dewatering centrifuges that were originally purchased between 1973 and 1992. New dewatering centrifuges provide the opportunity to right-size equipment to current and planned plant solids process operations (including SWIFT solids considerations, where appropriate) at reduced energy requirements (for example, reduced connected power from 400 hp to 165 hp per machine) and, in some cases, decreased polymer demand and enhanced performance. In 2020, the first two centrifuges under this program were placed into service at JRTP and NTP, replacing older machines that were repurposed as part of the ATP Thermal Hydrolysis Project. Design and construction are currently underway for two additional centrifuges at JRTP and on at ATP.



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)	4	2	4	3	3	3						
2.7	# of PS Annual PMs Performed (SS)	5	7	5	5	5	3						
2.7	# of Backup Generator PMs Performed (Target is 4.6)	7	15	6	17	10	5						
2.8	# of FM Air Release Valve PMs Performed (NS)	114	42	187	264	182	186						
2.8	# of FM Air Release Valve PMs Performed (SS)	220	243	200	316	108	152						
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	9,394	3,605	5,057	6,050	1,467	3,320						
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	10,686	2,217	1,100	6,245	3,687	3,370						
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	0	0	0	0	0						

G. Strategic Measurement Data

1. Education and Outreach Events: 1 (December only)
  - 12/10/2020: Germano Salazar-Benites participated as a speaker In the KNOW Webinar Potable Reuse: *Nature Reuses Water Endlessly, Why Don't We?*
2. Community Partners: 2 (November and December combined)
  - a. Chesapeake Bay Foundation-oyster cage maintenance at BHTP for oyster garden project (November 2020)
  - b. Chesapeake Bay Foundation-oyster cage maintenance at BHTP for oyster garden project (December 2020)
3. Monthly Metrics – November 2020

Item #	Strategic Planning Measure	Unit	November 2020
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (526) – Current Month	Hours / FTE	0.53
M-1.4b	Total Training During Work Hours per FTE (526) – Cumulative Year-to-Date	Hours / FTE	9.86
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	14,309.5
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	61.06%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	17.21%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	21.73%
M- 4.1a	Energy Use: Treatment *reported for October 2020	kWh/MG	2,442
M-4.1b	Energy Use: Pump Stations *reported for October 2020	kWh/MG	170
M-4.1c	Energy Use: Office Building *reported for October 2020	kWh/MG	87
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	1

4. Monthly Metrics – December 2020

Item #	Strategic Planning Measure	Unit	December 2020
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (526) – Current Month	Hours / FTE	0.51
M-1.4b	Total Training During Work Hours per FTE (526) – Cumulative Year-to-Date	Hours / FTE	10.14
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	13,901.50
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	63.45%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	18.85%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	17.70%
M- 4.1a	Energy Use: Treatment *reported for November 2020	kWh/MG	2,160
M-4.1b	Energy Use: Pump Stations *reported for November 2020	kWh/MG	165
M-4.1c	Energy Use: Office Building *reported for November 2020	kWh/MG	84
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1

Respectfully submitted,  
Steve de Mik  
 Director of Operations

TO: General Manager  
FROM: Director of Talent Management (TM)  
SUBJECT: Monthly Report for December 2020  
DATE: January 13, 2021

A. Talent Management Executive Summary

1. Recruitment Summary

a. November

New Recruitment Campaigns	7
Job Offers Accepted – Internal Selections	1
Job Offers Accepted – External Selections	4
Average Days to Fill Position	111

b. December

New Recruitment Campaigns	11
Job Offers Accepted – Internal Selections	3
Job Offers Accepted – External Selections	6
Average Days to Fill Position	94

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

- a. Staff continued addressing and monitoring suspected employee COVID-19 cases and potential close contact exposures based on the Virginia Department of Health (VDH) guidelines. In December, 37 employees were quarantined due to direct exposures (external or household) or due to COVID-19 symptoms; 16 employees had confirmed positive tests, and 7 employees quarantined following personal travel; two contractors reported positive tests of employees working on HRSD sites with no direct exposure to HRSD employees. To date, there have been no work-related cases.
  - b. Safety worked with a vendor to modify respirator fit testing and medical evaluation procedures to incorporate COVID-19 precautions.
  - c. Safety implemented a system to ensure new employees complete *Infectious Disease Preparedness and Response Plan* training.
3. Human Resources (HR) continued work with Operations on finalizing Boat Harbor Treatment Plant (TP) closure employee contracts. Meetings were held to ensure employees were informed of contract requirements.
  4. The HR Business Analyst worked with Finance and Informational Technology (IT) to test functionality of year-end ERP patches and upgrade to the Business Intelligence software.

5. In response to the ransomware incident, HR established communication and work processes to ensure continuation of functions including COVID-19 case monitoring and response, hiring, workers compensation, and benefit administration and worked with Accounting on payroll processes.
6. Organizational Development and Training (OD&T) and HR staff met with internal auditors to review initial findings and recommendations and began developing comments on the draft Succession Planning Audit report.
7. Wellness Program
  - a. Participation

Year Eight Participation Activities	Unit	December 2020	Year to Date (March 2020–February 2021)
Biometric Screenings	Number	8	87
Preventive Health Exams	Number	12	143
Preventive Health Assessments	Number	18	144
Online Health Improvement Programs	Number	35	152
Web-MD Online Health Tracking	Number	18 (Dec.) 2 (Nov.)	904
Challenges 1) <i>Five to Thrive</i> 2) <i>Immunity Booster</i>	Number	30 22	300
Fit-Bit Promotion	Number	3	55

- b. The *Five to Thrive* and *Immunity Booster* challenges concluded. Weekly tools and resources were distributed for the seven-week *Maintain Don't Gain* challenge ending January 3rd.
    - c. On-site biometric screenings were cancelled due to COVID-19. In response, changes to the current year Wellness Program were made to build in flexibility for earning the lowest deductible and incentives.
8. Work continued with the OD&T consultant on the following:
  - a. Implementing the Leadership and Management Academy (LAMA)
  - b. Debriefing leadership and completing a *Courageous Conversations Tour* summary
  - c. Revisions to the Supervisor Training Program
9. The Facilitator team conducted the first LAMA module, *Motivation*.

10. Apprenticeship Program

a. The quarterly Apprenticeship Committee Meeting was held to discuss Apprenticeship Graduation, Plant Operator curriculum review and licensing requirements and previous and current term statuses.

b. Several Apprenticeship Program improvements are in progress:

- (1) Course development within the Learning Management system
- (2) Electrical and Instrumentation (E&I) trade revisions
- (3) Review of the Plant Operator Curriculum
- (4) Development of a Student Success Program
- (5) Several Request for Proposals to enhance virtual instruction

11. The Safety Division began conducting respirator fit testing and coordinating medical screenings for several work centers to meet annual requirements.

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

	<u>2019</u>	<u>2020</u>
<b>Mishaps</b>	37	32
<b>Lost Time Mishaps</b>	6	2
<i>Numbers subject to change pending HR review of each case.</i>		

13. The Safety Division 2021 Inspections/Medical Monitoring/Sampling Calendar was completed and distributed.

14. Safety Division Monthly Activities

Safety Training Classes	6
Work Center Safety Inspections	7
Reported Accident Investigations	4
Construction Site Safety Evaluations	20
Contractor Safety Briefings	5
Hot Work Permits Issued	12
Confined Space Permits Issued/Reviewed	100
Industrial Hygiene Monitoring Events	1

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (0)
2. Community Partners: (0)
3. Monthly Metrics

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>November 2020</b>
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.25%
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.13%
<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>December 2020</b>
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.25%
M-1.1b	Employee Turnover - Service Retirements	Percentage	0%
M-1.4a	Total Training Hours Per Full Time Employee (17) – December	Total Training Hours/ FTE	1.56
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	14.91
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	0

Respectfully submitted,  
**Paula A. Hogg**  
Director of Talent Management

TO: General Manager  
FROM: Director of Water Quality (WQ)  
SUBJECT: Monthly Report for December 2020  
DATE: January 14, 2021

A. General

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

**Marva Maid Dairy – Newport News**

An Enforcement Order was issued to Marva Maid Dairy in December 2020 for 11 permit violations issued between April and September 2020. Both administrative and technical violations are included in this Enforcement Order. Administrative violations include a late Permit Application and two failures to provide notification of a self-monitoring violation within 24-hours as required by the Permit. Technical violations include five Permit limit exceedances; three for low pH and two for oil and grease. Two additional technical violations were issued for failure to collect a pH grab sample to confirm functionality of the Permittees continuous pH monitoring system. The Order contained a \$16,500 Civil Penalty recommendation. The maximum penalty was recommended for most violations in this case in response to the compliance history of the Permittee. A Show Cause meeting was held on December, 2020. HRSD offered to enter into a consent agreement with Marva Maid Dairy where the Permittee would be allowed to use the proposed \$16,500 Civil Penalty toward improvements of the onsite pretreatment system. Marva Maid Dairy accepted HRSD's offer to enter into a consent agreement in their enforcement response letter received December 24, 2020. HRSD staff is working with Marva Maid to draft the consent agreement.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported no activity for the month of December.
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

1. HRSD provided sampling and analytical services to Northumberland County and Westmoreland County to support monitoring required for their respective Virginia Pollution Discharge Elimination System (VPDES) permits and to the City of Chesapeake to support their water quality assessment efforts.
2. The [Municipal Assistance Billed Reimbursements](#) per service collected between October 1 and December 31, 2020 are attached.



3. The [Municipal Assistance Invoice Summary](#) for the fourth quarter of the 2020 calendar year is attached.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
  - a. WQ staff participated in the HRSD Cares Act door tagging initiative.
2. Community Partners: 1
  - a. Hampton Roads Planning District Commission
3. Monthly Metrics

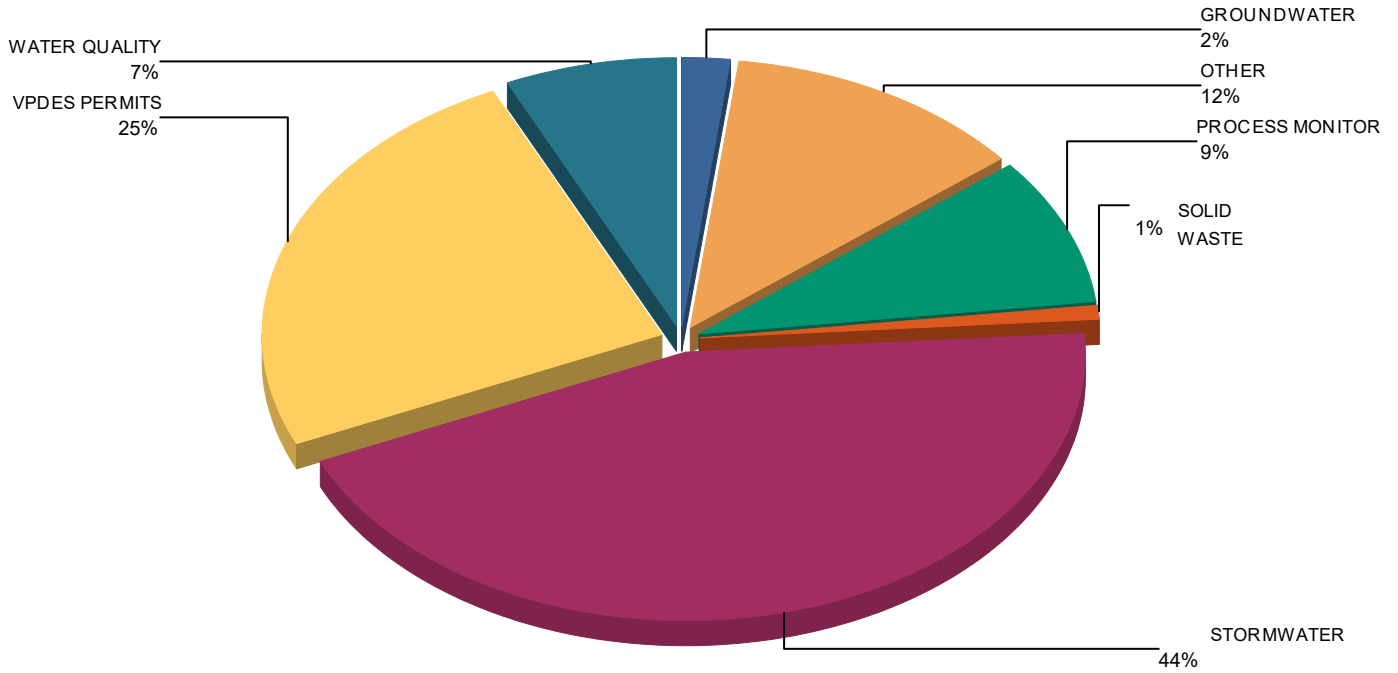
Item #	Strategic Planning Measure	Unit	November 2020
M-1.4a	Training During Work Hours Per Full Time Employee (118) (Current Month)	Total Hours / # FTE	4.48
M-1.4b	Total Training During Work Hours Per Full Time Employee (118) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	22.76
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	10
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	6:25,366
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	77,229,436
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	17%
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	2
	Average Daily Flow	Total MGD for all Treatment Plants	167.46
	Pretreatment Related System Issues	#	0

Item #	Strategic Planning Measure	Unit	December 2020
M-1.4a	Training During Work Hours Per Full Time Employee (118) (Current Month)	Total Hours / # FTE	2.15
M-1.4b	Total Training During Work Hours Per Full Time Employee (118) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	24.91
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	6:30,440
M-3.2	Odor Complaints	#	0
M-3.4	Pollutant Removal	Total Pounds Removed	92,975,317
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	18%
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	1
	Average Daily Flow	Total MGD for all Treatment Plants	167.95
	Pretreatment Related System Issues	#	0

Respectfully submitted,  
*James Plett, PhD*  
 Director of Water Quality

# Municipal Assistance Billed Reimbursements per Service From 10/01/2020 to 12/31/2020

## Attachment 1



Notes: Other = Equipment purchase, consultation, validation studies, boater pump-out program, etc.

## **Municipal Assistance Invoice Summary From 10/01/2020 - 12/31/2020**

<b>Municipality</b>	<b>Reimbursements</b>
Accomack County	\$2,142.89
Augusta County Service Authority	\$5,269.06
Buckingham County	\$410.05
Chesapeake Public Works	\$5,230.19
City of Chesapeake	\$404.96
City of Emporia	\$233.68
City of Hampton	\$3,915.19
City of Norfolk	\$3,394.56
City of Portsmouth	\$4,011.99
City of Roanoke	\$2,072.76
City of Virginia Beach	\$3,819.34
Deerfield Corrections Center	\$837.62
HRPDC	\$50,258.19
Hopewell RWTF	\$4,878.59
New Kent County	\$5,242.56
Northampton County WWTP	\$1,111.98
Northumberland Co. - Callao WWTP	\$1,356.54
Rivanna Water and Sewer Authority	\$5,135.32
Spotsylvania County	\$1,427.71
St Brides Corr Ctr WWTP	\$1,531.36
Town of Cape Charles	\$4,613.36
Town of Lawrenceville	\$648.95
Virginia Department of Health	\$4,383.23
Westmoreland County	\$712.84
<b>Totals:</b>	<b>\$113,042.92</b>



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

## ***I. Projects in Process***

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### **SWIFT Program Management Plan**

- **Upcoming Tasks (January 2021)**
  - Obtain Management actions plans
  - Finalize report

### **Fleet Services**

- **Tasks Completed (December 2020)**
  - Communicated draft report for Management review and action plans
  - Met with Fleet Services Management to answer questions
- **Upcoming Tasks (January 2021)**
  - Obtain Management actions plans
  - Finalize report

### **Succession Planning**

- **Tasks Completed (December 2020)**
  - Communicated draft report for Management review
- **Upcoming Tasks (January 2021)**
  - Obtain Management feedback
  - Request Management action plans
  - Obtain Management actions plans
  - Finalize report

### **Business Continuity and Disaster Recovery (Audit Fieldwork Complete/ Management Response in Process)**

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

### ***Upcoming Projects (FY2021)***

SC&H is working with HRSD/the Director of Finance coordinate and determine timing to commence the Contract Management (procurement, non-engineering) internal audit and the annual risk assessment.

## ***II. Management Action Plan (MAP) Monitoring***

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



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

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

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/16	In process	12	1	13
Biosolids Recycling	10/8/16	Pending Permit	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	In process	8	3	11
Engineering Procurement	4/20/18	In process	4	4	8
Corporate Governance: Ethics Function	3/21/18	January 2021	3	2	5
Treatment Plant Operations	10/15/18	July 2021	5	4	9
Customer Care Division*	7/26/19	January 2021	0	4	4
Safety Division	9/12/19	In process	0	3	3
Permitting*	2/4/20	January 2021	0	2	2
Payroll*	3/27/20	January 2021	0	3	3
Pollution Source Control*	6/2/20	February 2021	0	8	8
<b>Totals</b>			59	35	94

\*SC&H has not yet performed formal follow-up procedures for the implementation status of these MAPs. Actual status may vary within the associated process areas and will be updated upon follow-up.

**Annual Metrics**

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20
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%
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%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	85%	63%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60
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
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
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
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
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887	29,596
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%	25%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7
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
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
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102
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%
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
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%
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
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%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32
	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
	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
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%
	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%
	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%

\*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 Nov-20	FY-21 Dec-20
	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	167.5	168.0
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	105%	109%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	109%	101%
	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	\$31,097,462	\$45,708,907
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	34%	26%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	10	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	6:25366	6:30440
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	1	0
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	77,229,436	92,975,317
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	17%	18%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	0	6
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	0	7

**EFFLUENT SUMMARY FOR DECEMBER 2020**

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	12.04	67%	4	4.4	3	2	0.24	0.74	5.0	4.0	NA	NA	1
ATLANTIC	25.74	48%	12	10	2	3	NA	NA	NA	NA	NA	NA	18
BOAT HARBOR	17.23	69%	9	8.7	1	1	0.58	0.48	19	18	NA	NA	5
CENT. MIDDLESEX	0.011	43%	<2	1.4	1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	18.95	79%	22	15	15	8	1.0	1.1	28	31	NA	NA	4
JAMES RIVER	16.34	82%	4	3.6	1	2	0.42	0.35	7.9	8.6	NA	NA	5
KING WILLIAM	0.072	72%	<2	<1.0	NA	<1	0.025	0.037	5.2	1.5	2.8	NA	NA
NANSEMOND	17.61	59%	4	5.3	2	2	0.34	0.68	4.0	3.8	NA	NA	0
SURRY, COUNTY	0.057	88%	10	1.7	NA	10	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.078	129%	8	12	NA	103	NA	NA	NA	NA	4.1	4.5	NA
URBANNA	0.054	54%	3	8.4	2	2	1.2	4.6	8.7	16	NA	0.05	NA
VIP	32.86	82%	1	2.0	1	1	0.62	0.70	4.2	3.8	NA	NA	0
WEST POINT	0.800	133%	19	17	1	1	1.8	2.4	10	15	NA	NA	0
WILLIAMSBURG	9.53	42%	5	5.4	2	6	0.50	0.66	3.7	2.5	NA	NA	2
YORK RIVER	16.57	110%	1	0.53	1	1	0.16	0.25	5.6	4.9	NA	NA	4
	<u>167.95</u>												

	% of Capacity
North Shore	72%
South Shore	65%
Small Communities	107%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY20		YTD	Projection CY20	
	%	Lbs	%	%	Lbs	%
James River	80%	3,701,440	81%	75%	235,547	74%
York River	80%	232,885	81%	71%	13,892	72%
Rappahannock	208%	NA	NA	886%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY21 to Date: 6:30,440  
Pounds of Pollutants Removed in FY21 to Date: 92,975,317  
Pollutant Lbs Discharged/Permitted Discharge FY21 to Date: 18%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	6.69"	4.39"	6.33"
Normal for Month	3.90"	3.47"	3.73"
Year to Date Total	75.47"	56.33"	64.33"
Normal for YTD	52.14"	50.37"	49.57"



## 2020 EFFLUENT SUMMARY

PLANT	FLOW MGD	BOD MG/L	TSS MG/L	FC #/100 ML	ENTERO #/100 ML	TP MG/L	TN MG/L	CONTACT TANK EX	NH3 MG/L
ARMY BASE	11.37	2	3.7	3	1	0.74	4.0	7	NA
ATLANTIC	24.94	12	8.7	5	1	NA	NA	NA	NA
BOAT HARBOR	15.43	7	6.3	2	1	0.48	18	7	NA
C. MIDDLESEX	0.011	<2	1.2	1	1	NA	NA	NA	0.04
CHES-ELIZ	18.61	17	14	23	10	1.1	31	12	NA
JAMES RIVER	14.02	4	3.6	1	1	0.35	8.6	2	NA
KING WILLIAM	0.062	0	0.01	NA	1	0.037	1.5	NA	NA
LAWNES POINT	NA	NA	NA	NA	NA	NA	NA	NA	NA
NANSEMOND	16.88	4	4.7	4	2	0.68	3.8	4	NA
SURRY, COUNTY	0.068	5	8.4	NA	3	NA	NA	NA	0.09
SURRY, TOWN	0.064	6	12	NA	48	NA	NA	NA	0.56
URBANNA	0.052	3	10	3	3	4.6	16	NA	0.50
VA INITIATIVE	27.90	3	4.1	2	2	0.70	3.8	1	NA
WEST POINT	0.516	20	18	4	4	2.4	15	0	NA
WILLIAMSBURG	8.27	3	3.8	5	8	0.66	2.5	4	NA
YORK RIVER	13.82	2	0.95	1	5	0.25	4.9	2	NA

Permit Exceedences:

January, 2020: King William (KW) TKN weekly concentration (1)

February, 2020: Town of Surry (TSY) Weekly maximum cBOD loading (2) and cBOD monthly average loading (1)

April, 2020: County of Surry (CSY) TSS weekly loading (1)

August, 2020: CSY Ammonia weekly concentration (1), cBOD weekly loading (1), cBOD monthly average loading (1)

September, 2020: CSY Copper weekly (1) and monthly (1) concentration

November, 2020: Army Base BOD weekly loading (1)

December, 2020: KW TKN weekly concentration (1)

**AIR EMISSIONS SUMMARY FOR DECEMBER 2020**

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								December 2020 Part 503e Limits		
	Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave (F)	12 hr ave (in. WC)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	pH 3 hr ave	Bypass Stack Use	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ARMY BASE	0	1	0	0	0	0	0	0	26	82	0
BOAT HARBOR	0	2	0	n/a	0	0	0	1	6	66	0
CHES-ELIZ	0	0	0	0	0	0	0	0	27	87	0
VIP	0	0	0	n/a	0	0	0	0	20	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	18	95	0

**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:	0
HRSD Odor Scrubber H2S Exceptions:	0

	November 2020 Part 503e Limits		
	THC	THC	BZ Temp
	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ABTP	51	86	0
BHTP	10	55	0
CETP	19	88	0
VIP	23	95	0
WTP	24	99	0
* Previously reported as N/A			

### AIR EMISSIONS SUMMARY FOR CY 2020

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave (F)	12 hr ave (in. WC)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	pH 3 hr ave	Bypass Stack Use	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ARMY BASE	0	2	0	0	0	0	1	35	35	94	0
BOAT HARBOR	0	8	0	n/a	1	1	0	16	17	91	0
CHES-ELIZ	0	0	0	0	0	0	11	2	22	95	0
VIP	1	0	0	n/a	0	0	5	7	40	98	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	9	20	96	0

#### ALL OPERATIONS

DEQ Reportable Air Incidents:	3
DEQ Request for Corrective Action:	0
DEQ Warning Letter:	0
DEQ Notice of Violation:	1
Other Air Permit Deviations:	0
Odor Complaints Received:	19
HRSD Odor Scrubber H2S Exceptions:	95

AGENDA ITEM 26. – January 26, 2021

**Subject:** 16th Street Emergency Repair  
Emergency Declaration

**Recommended Actions:** No information is required. Information Only

**Brief:** On January 4, 2021 at approximately 9:30am a failure occurred on the 36-inch reinforced concrete pipe (RCP) force main along 16th Street in the City of Newport News. This pipe carries all of the flows originating from the City of Hampton service area and from the Newport News Pump Station (PS) #2 to the Boat Harbor Treatment Plant. With no ability to bypass or divert flows away from this location, HRSD and Newport News staff worked non-stop to establish temporary diversion measures to move flows away from the break. By 6:00 pm flows were diverted from the Claremont Avenue PS into the James River; by 8:30 pm the Newport News Pump Station #2 flows were diverted to Salter's Creek. Once the flows were diverted, an on-call contractor began the repair efforts. On Thursday, January 7, 2021 at 7:20 am all flows were restored and sent to Boat Harbor for treatment. However, one hour after the system was restored, a 25 gallon per minute leak around the temporary repair was discovered.

Although, the release is fully now contained, based on CCTV footage there remains significant risk of another break in the pipe. Because of this risk, staff authorized contractors to build a temporary 2,400 linear feet bypass system around this pipe. In addition, in the event there is a wet weather event increasing pressures in the pipe, staff installed a 12-inch modulating plug valve at the bypass connection near the Claremont PS to stabilize pressures in the RCP if conditions dictate. Contractors are working 24-7 to install the bypass system. Completion is expected near the end of the January.

The diversion into the James River and Salters Creek lasted three days ultimately resulting in a spill of approximately 29 million gallons.

An emergency declaration for emergency bypass piping and pumping, construction services for installation of a large by-pass system, pump and haul services, engineering services and other ancillary equipment and contractual services to help mitigate and restore normal operations was authorized on January 8, 2021.

The estimated cost of this work is \$3,800,000.