

HRSD Commission Meeting Agenda
9:00 a.m. – December 15, 2020

Location: Electronic Meeting in Accordance with Chapter 1283, Virginia 2020 Acts of Assembly

Limited electronic observation is available by reservation on a first come, first served basis and must be received by Jennifer Cascio at jcascio@hrsd.com by noon one business day prior to the meeting.

Public Comments to be made during the meeting should be submitted to Jennifer Cascio by email to jcascio@hrsd.com or by phone to 757.460.7003, and must be received by noon one business day prior to the meeting.

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
	Call to Order	Elofson
	Roll Call of HRSD Commission	Cascio
1.	Awards and Recognition	
2.	Consent Agenda	Henifin
	a. Approval of Minutes	
	b. Contract Award	
3.	Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Initial Appropriation	Husselbee
4.	Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Alternative Project Delivery	Husselbee
5.	COVID-19 Wastewater Surveillance Study Update	Gonzalez
6.	Unfinished Business	Henifin
7.	New Business	Henifin
8.	Commissioner Comments	
9.	Public Comments Not Related to Agenda	Cascio
10.	Informational Items	Henifin
	a. Management Reports	
	b. Strategic Planning Metrics Summary	
	c. Effluent Summary	
	d. Air Summary	

Next Regular Commission Meeting Date: January 26, 2021

AGENDA ITEM 1. – December 15, 2020

Subject: Awards and Recognition

Recommended Action: No action is required.

Brief: HRSD is pleased to announce the Virginia Initiative Plant Nutrient Reduction Improvements Project recently won the American Council of Engineering Companies (ACEC) National Grand Award. This is a very prestigious national award with only a handful of projects under consideration across the country. The project received this award as part of the Annual Gala and Awards Banquet which was held virtually on December 1. This is the third award for this very challenging and important project.



AGENDA ITEM 2. – December 15, 2020

Subject: Consent Agenda

Recommended Action: Approve the Consent Agenda.

Brief: The items listed below are presented on the following pages for Commission action.

a. **Approval of Minutes**

The draft minutes of the previous Commission Meeting were distributed electronically prior to the meeting.

b. **Contract Awards**

1. [Praestol, ZETAG and Magnafloc Polymer Blanket Purchase Agreement](#) \$2,763,150

CONSENT AGENDA ITEM 2.b.1 – December 15, 2020

Subject: Praestol, ZETAG and Magnafloc Polymer Blanket Purchase Agreement
Contract Award (>\$200,000)

Recommended Action: Award a contract to Solenis for Praestol, ZETAG and Magnafloc Polymers in the estimated amount of \$552,630 for year one with four annual renewal options and an estimated cumulative value in the amount of \$2,763,150.

HRSD Estimate: \$511,360

Contract Description: This contract is an agreement to furnish and supply Praestol, ZETAG and Magnafloc brand polymers to HRSD Treatment Plants on an as needed basis. This is a continuous use contract developed and utilized in accordance with the Polymer Evaluation Policy.

Analysis of Cost: This is an estimated use contract. HRSD Estimate is based on current annual usage and FY-2021 Budget Projections.

AGENDA ITEM 3. – December 15, 2020

Subject: Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I
Initial Appropriation

Recommended Action: Appropriate total project funding in the amount of \$14,000,000.

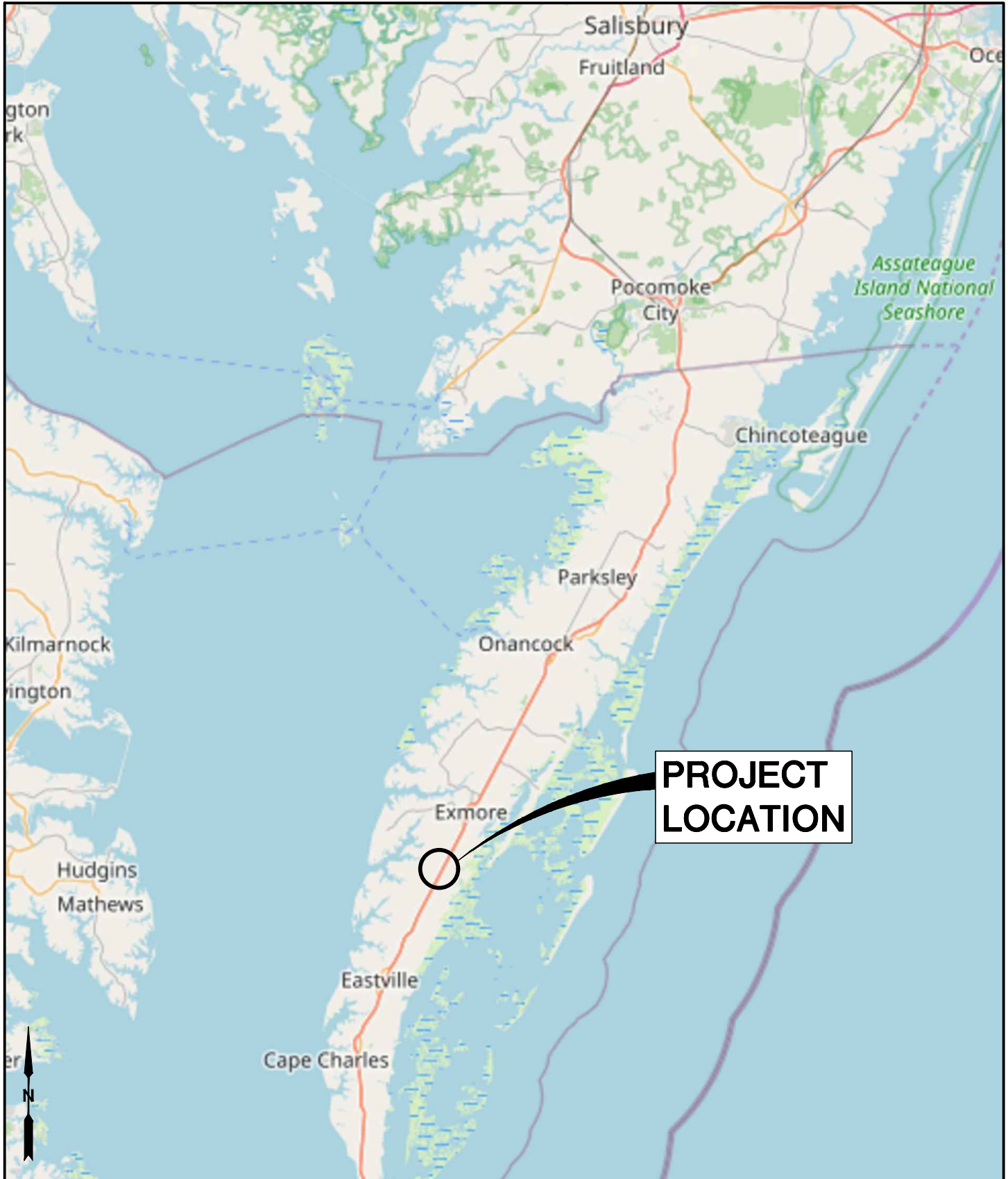
CIP Project: ES010100

Project Description: This project on the [Eastern Shore](#) will construct an 8-inch transmission force main approximately 102,370 feet in length and a duplex pump station to convey flows from the Town of Nassawadox to the Onancock Wastewater Treatment Plant. These [facilities](#) will provide improved wastewater treatment for the Town of Nassawadox by taking advantage of unused capacity at the Onancock Wastewater Treatment Plant.

Funding Description: The total project cost is based upon the study prepared by the firm of HDR Engineering dated May 2020. A Water Quality Improvement Fund (WQIF) Grant application will be submitted for this project to offset some of the costs for the pipeline construction.

In addition, the Eastern Shore Infrastructure Improvements were approved for a \$24 million Virginia Clean Water Revolving Loan Fund with \$2,228,693 in principal forgiveness. This loan is expected to close in early 2021.

<u>Schedule:</u>	Begin RFQ / RFP process	January 2021
	Selection of Design-Builder / Contract Cost Limit	June 2021
	Construction Completion	December 2022



**PROJECT
LOCATION**



**DAVIS,
BOWEN &
FRIEDEL, INC.** ARCHITECTS ENGINEERS SURVEYORS

FIGURE 1

**VICINITY MAP
NASSAWADOX WWTP UPGRADE
NORTHAMPTON COUNTY, VIRGINIA**

SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

Date: **APRIL 2020**

Scale: **1"=10 MILES**

Proj.No.: **3226A003.B01**



**NASSAWADOX
PUMP STATION**

**8-IN PVC
FORCE MAIN**

16-IN STEEL CASING

**8-IN HDPE
FORCE MAIN**

**PVC-HDPE
TRANSITION**

NASSAWADOX

Branch Ln

Rogers Dr

Pine Ave

Hospital Ave

Rogers Dr

Lankford Hwy

Charles M Lankford Jr Memorial Hwy Lankford Hwy

Seaside Rd

Seaside Rd

Brownsville Rd

Brownsville Rd

Rogers Dr

Mill St

Railroad St

Shell St

Seaside Rd

Woodstock Ct

Riverside Shore Memorial Hospital

13

13

AGENDA ITEM 4. – December 15, 2020

Subject: Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I
Alternative Project Delivery

Recommended Action: Approve the Design-Build project delivery method for Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I.

CIP Project: ES010100

Project Description: This project will construct an 8-inch transmission force main approximately 102,370 feet in length along with a duplex pump station to convey flows in the Town of Nassawadox to the Onancock Wastewater Treatment Plant to provide for improved wastewater treatment for the Town of Nassawadox by taking advantage of unused capacity at the Onancock Wastewater Treatment Plant.

Brief: While the design-competitive bid-build process is the preferred method of construction procurement for HRSD, this project delivery method will not be practical to meet the critical schedule requirements for these projects. A Design-Build delivery process is more advantageous than a sealed competitive bid for this project for the following reasons:

1. The Design-Build delivery method will allow for the overlap of a portion of the design phase and construction phase to reduce the overall delivery schedule for this project.
2. The Design-Build delivery method will allow for contractor input to consider cost saving alternatives during the design and a Stipulated Price can be received during the final design stage.
3. The Design-Build delivery method will provide budget certainty at an earlier stage by receipt of the Stipulated Price as compared to the traditional design-bid-build process of requiring full Bid Document development and evaluating the bids received from the advertisement for construction bids.
4. The Design-Build delivery method will facilitate a single responsible design and construction entity to coordinate all construction activities as opposed to bidding and awarding individual construction contracts for the planned pump station and force main packages.

HDR Engineering will be retained as HRSD's Owner Advisor to assist with preparation of the Request for Qualifications (RFQ) and Request for Proposals (RFP) in addition to supporting services to HRSD for the duration of this project. The anticipated schedule for the solicitation process for the Design-Builder follows.

<u>Schedule:</u> Begin RFQ / RFP process	January 2021
Selection of Design-Builder / Contract Cost Limit	June 2021
Construction Completion	December 2022

AGENDA ITEM 5. – December 15, 2020

Subject: COVID-19 Wastewater Surveillance Study Update

Recommended Action: No action is required.

Brief: Staff will present the latest data and status of the COVID-19 surveillance work.

AGENDA ITEM 6. – December 15, 2020

Subject: Unfinished Business

- a. Nansemond River Seafood Update
- b. Cares Act Funding
- c. Customer Satisfaction Survey Update
- d. Ransomware Update

AGENDA ITEM 7. – December 15, 2020

Subject: New Business

AGENDA ITEM 8. – December 15, 2020

Subject: Commissioner Comments

AGENDA ITEM 9. – December 15, 2020

Subject: Public Comments Not Related to Agenda

AGENDA ITEM 10. – December 15, 2020

Subject: Informational Items

Recommended Action: No action is required.

Brief: The following items listed below are presented for information.

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

December 9, 2020

Re: General Manager's Report

Dear Commissioners:

Just when I thought 2020 could get no worse, HRSD was hit with a ransomware attack on November 17. Response and containment actions required a complete shutdown of all information systems. The investigation and restoration continue, and we remain in full crisis mode as we have for the past three weeks. I believe ransomware fatigue is an order of magnitude worse than COVID fatigue.

Stress levels are high throughout the organization but as is typical at HRSD, our people are rising to the challenges, working together, and moving forward. We have great people working extraordinarily long hours to get us back to pre-attack functionality. Don Corrado, Director of Information Technology, has been leading our "rock star" team of IT professionals throughout this crisis. We are so lucky to have such talented and dedicated people in IT and throughout HRSD.

The highlights of November's activities are detailed in the attached monthly reports. Due to the IT system issues, many reports are lacking information normally provided. This information will be included – to the extent we can access it – in future monthly reports.

- A. **Treatment Compliance and System Operations:** The interceptor system across the region experienced multiple overflows on November 12 due to rainfall associated with the remnants of Hurricane Eta. The intense rainfall created high pressures throughout the system and near record breaking peak flows at several treatment plants.
- B. **Internal Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted) with HRSD personnel:
1. A meeting to review sewer rehab plans with a focus on private property inflow and infiltration minimization
 2. Provided opening comments for the inaugural session of the internal Leadership and Management Academy.
 3. Discussion of rates for Eastern Shore communities
 4. Visited all treatment plants to present NACWA Peak Performance Awards
 5. HRSD listening session debrief with Talent Management, Communications and consultant, Hicks-Carter-Hicks

- C. **External Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted):
1. A meeting with representatives from West Rock to review modeling results associated with SWIFT aquifer recharge
 2. The monthly meeting of the Hampton Roads Planning District Commission (HRPDC) Director of Utilities Committee (DUC)
 3. A meeting with HRSD new General Counsel – Sands Anderson to discuss HRSD expectations
 4. A discussion focused on community benefits with a national engineering firm
- 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 before year end but do not expect the judge to approve until first quarter 2021.

We were notified on the afternoon of December 7th that we were awarded \$8.7 million in CARES Act funding to assist customers with overdue bills. This money must be distributed by January 29th and we need attestation from each customer that they were financially impacted by COVID and that they have received no other CARES Act funding to assist with utility payments. We are gearing up to get this program running but it will be a huge challenge to contact the more than 40,000 accounts with eligible overdue balances in the next 6 weeks. The City of Norfolk has graciously agreed to be our fiscal agent (a requirement of this funding) and they have been wonderful to work with. We will do everything possible to get as much of this money into the regional economy.

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, December 15, 2020.**

Respectfully submitted,

Ted Henifin, P.E.
General Manager

TO: General Manager
 FROM: Director of Communications
 SUBJECT: Monthly Report for November 2020
 DATE: December 4, 2020





A. Publicity and Promotion

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

1. Suffolk Oystermen's case heard in Virginia Supreme Court
2. Eastern Shore communities joining HRSD

B. Social Media and Online Engagement

1. Metrics

Social Media Metrics November 2020				
METRIC	 FACEBOOK	 LINKEDIN	 TWITTER	 YOUTUBE
Number of Posts *number of published posts	24 -10	9 even	26 -7	2.21 average view duration
Number of Followers/Likes *total number of fans	1,386 +11	5,063 +26	506 +5	209 +5
Engagement *sum of reactions comments and shares	615 +50	321 +9	89 -66	990 unique viewers -323
Traffic *total clicks on links posted	91 +39	496 +9	155 +91	3.5% click through -1.5%

2. Top posts on Facebook, Twitter and YouTube

a. Top Facebook post

The screenshot shows a Facebook post from HRSD, published on November 2. The post text reads: "HRSD is celebrating 80 years of sustainability! In 1940 more than 30 million gallons of untreated sewage was dumped into the waters of the Hampton Roads each day. Concerned citizens responded by voting to create HRSD to prevent the pollution of area waterways. 80 years later, HRSD has grown into one of the nations' premiere wastewater treatment agencies with 16 treatment plants capable of treating up to 249 million gallons of wastewater everyday." The post includes two images: a historical black and white photo of the Hampton Roads Sanitation District Commission building with the caption "how it started", and a modern color photo of the HRSD building with the caption "how it's going". The post has 1,422 people reached, 135 reactions, comments, and shares, and 78 post clicks. A "Boost Post" button is visible.

Reaction	On Post	On Shares
Like	52	58
Love	8	0
Wow	0	1
Comments	1	7
Shares	8	0

Click Type	Count
Photo Views	25
Link Clicks	0
Other Clicks	53

NEGATIVE FEEDBACK

Hide Post	0
Report as Spam	0
Hide All Posts	0
Unlike Page	0

Reported stats may be delayed from what appears on posts

1,422 People Reached 213 Engagements [Boost Post](#)

Natalie Wieszek, Amy Whitley Wood and 58 others 1 Comment 8 Shares

b. Top Tweet

The screenshot shows a "Top Tweet" from HRSD. The text of the tweet is: "80 years of sustainability! In 1940 raw sewage was dumped into local waterways everyday. Concerned citizens responded by voting to create HRSD to prevent pollution of our waterways. 80 years later, HRSD has grown into one of the nations' premiere wastewater treatment agencies." The tweet includes a link to a photo: pic.twitter.com/c7Tk6VpeUf. Below the text are two images: a historical black and white photo of the Hampton Roads Sanitation District Commission building with the caption "how it started", and a modern color photo of the HRSD building with the caption "how it's going". The tweet has 1 retweet and 7 likes. Buttons for "View Tweet activity" and "View all Tweet activity" are visible.

- 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) [HRSD Willard Avenue Pump Station and Gravity Sewer Replacement](#)

3. Impressions and Visits

- a. Facebook: 17,355 page impressions, 14,620 post impressions reaching 12,314 users and Facebook engagement of 615 (788 reactions, 80 shares and 49 comments).
- b. Twitter: 605 tweet impressions; 25 profile visits and 23 mentions
- c. HRSD.com/SWIFTVA.com: 869 page visits
- d. LinkedIn Impressions: 992 page impressions and 2,821 post impressions
- e. YouTube: 990 views
- f. Next Door unique impressions: 171 post impressions
- g. Blog Posts: 0
- h. Construction Project Page Visits – 866 total visits (not including direct visits from home page, broken down as follows:
 - (1) 533 visits to individual pages
 - (2) 333 to the status page

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

- 1. News Releases/Traffic Advisories/Construction Notices: 10 (2 news releases, 3 construction notices, one Commission meeting notice, one new project announcement, one virtual open house notice, one traffic advisory, and one smoke testing notice)
- 2. Advertisements: 0
- 3. Project Notices: 6 (via door hanging and mailings, reaching approximately 824 residents)
- 4. Project/Community Meetings: one (held virtually)
 - a. Presentation/virtual open house for the Willard Avenue Pump Station and Sewer Replacement – (November 1 – 30)

5. New Project Web Pages /Videos: One (Added Sewer Replacement (Hampton K) project to combine with the Pump Station project for Willard Avenue)

C. Special Projects and Highlights

1. Director worked with media training consultant to deliver a virtual training, "Use your Smartphone to Shoot Great Video to tell the HRSD Story." Approximately 40 HRSD staff attended the training, which was recorded and made available for viewing by all via the Communications SharePoint page.
2. Director participated in the WateReuse Education and Outreach Advisory Group meeting
3. Director attended meetings with HRSD Chief Information Security Officer and consultant Gartner to begin developing HSD Data Breach Notification Standards.
4. Director and staff participated in Woodstock Park Interpretive signage review meetings with consultants and City of Virginia Beach Parks & Recreation staff.
5. Director attended Public Relations Society (PRSA) trainings on Diversity, Equity and Inclusion (DEI) basics and Implicit Bias and Microaggressions in the workplace.
6. Staff participated in the HRPDC askHRGreen FOG meeting.

D. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. Weekly Leadership and COVID-19 meetings (through November 17)
 - b. Daily senior leadership updates through HRSD ransomware attack
 - c. Leadership and Management Academy Orientation meeting
 - d. Stakeholder communication planning, website content review, progress meetings and locality coordination planning meetings for the Larchmont Sanitary Sewer Improvements Program
 - e. James River Treatment Plant SWIFT public outreach planning meetings
 - f. SWIFT Research Center virtual tour finalization meetings
 - g. 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 staff check-in meetings.
3. Staff attended project progress meetings and presentation and outreach development meetings with various project managers.

E. Metrics

1. Educational and Outreach Activities:
 - a. 11/13/2020 – Amazing Aquifers virtual activity for The Hague School in Norfolk

2. Number of Community Partners: 2
 - a. The Hague School
 - b. askHRGreen/HRPDC

3. Additional Activities Coordinated by Communications Department: 0

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	November 2020
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	3
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	34.25
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	2

Respectfully,

Leila Rice, APR
 Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for November 2020
DATE: December 4, 2020

A. General

1. Capital Improvement Program (CIP) spending for the fourth month of Fiscal Year (FY) 2021 was not available and will be reported in January.
2. With HRSD networks down at the end of the month, Engineering Department staff assisted with troubleshooting of technical issues and began corresponding with new email addresses. Temporary measures were used to keep information moving and staff continued to communicate with the consultants, contractors and vendors doing business with HRSD.

B. Asset Management Division

1. A new Interceptor System Asset Database was created using SharePoint to centralize all historical and future condition assessment reports, line files and other asset-related documents. This database will allow staff to upload and retrieve data as needed. Multiple workshops were recently held to discuss this data repository system, how to input/receive data, and how this database interacts with other data located in HRSD's GIS and CMMS.
2. The Treatment Plant Asset Management Plan Dashboard for most of HRSD's treatment plants was published in November. This dashboard is available to staff for a quick overview of data at each location. Certain data gaps still exist, specifically certain condition assessment data, but this dashboard can provide value even without all of the data fields populated. A number of post go-live updates are under consideration as feedback is received from staff.

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

1. The Willard Avenue Pump Station Replacement project continued in November. The project design is at the 90% completion stage. Staff is closely coordinating this project with the City of Hampton. A virtual Town Hall Meeting has been prepared to share information about the project with the public and to receive feedback and questions they may have. Mailers were sent to the neighborhood notifying them of the availability of the project virtual meeting. The virtual meeting will be available on our website through December.
2. The Deep Creek Interceptor Force Main Replacement construction continues to make good progress. Most of the replacement pipeline has been installed. A delay caused by an existing cable line in conflict with a crossing of a railroad has required a change in plans. We are now planning to reuse the existing casing pipe and replace the carrier pipe located inside this casing with a new pipe. This has required a new pipeline shutdown plan and the need to direct flow to the east through a pipe planned for

abandonment. This is a Sewer Rehabilitation Plan Phase 1 project and work must be substantially complete by May 2021.

3. The James River SWIFT Design-Build project team selection continues. Negotiations with the selected team are underway. This negotiation is very involved to ensure the project scope is clearly understood and the needed budget and schedule are in alignment with HRSD's needs. Due to the complexity and size of this project, it is critical that the project has clear and documented expectations by all team members. The final selection recommendation will be made at the January Commission Meeting.

D. Planning & Analysis Division

1. Staff continues to consider how the need to possibly expand the King William Treatment Plant will be addressed. A number of options are under consideration including an expansion at the current location, closing the plant and directing flow to the northwest, or closing the plant and directing flow to the southeast. All of these options are viable and have many pros and cons. Recent discussions with Hanover County and King William County have been held to discuss possible flow diversion options. The King William Treatment Plant currently provides treated effluent to an adjacent industry. An alternative to provide further treated effluent to this business is also an option. A summary of the various options, costs and time for possible implementation will be reviewed with HRSD's Quality Steering Team (QST) in December.
2. Staff recently completed the hydraulic modeling for the Surry Interceptor Force Main. A number of hydraulic scenarios were considered for the current construction and possible near-term connections to this pipeline by businesses and industries located adjacent to the pipe alignment. This information was shared with the Design-Build Team installing the pipeline so that the pump stations to be installed as part of the project are sized properly.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 2
 - a. 11/04/2020 – Old Dominion University Civil and Environmental Engineering Department Virtual Speed Networking Event.
 - b. 11/18/2020 – American Council of Engineering Companies Virginia Section Engineering Excellence Awards Competition Judge.
2. Number of Community Partners: 2
 - a. Old Dominion University Civil and Environmental Engineering Department
 - b. American Council of Engineering Companies Virginia Section
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	*
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	*
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

*to be provided in a future report.

Sincerely,

Bruce W. Husselbee, P.E.

TO: General Manager
 FROM: Director of Finance
 SUBJECT: Monthly Report for November 2020
 DATE: December 7, 2020

A. General

- The Governor signed into law the act that appropriates \$100 million of the Commonwealth's Coronavirus Aid, Relief and Economic Security (CARES) Act funding to establish a COVID-19 Utility Relief Program and help provide direct assistance to utility customers with accounts over 30 days in arrears. Since HRSD cannot receive these funds directly, the City of Norfolk will be our partnering City to act as our fiscal agent with the terms defined in a Memorandum of Understanding (MOU). The City will pass HRSD-allocated funds to HRSD. The award amount will be released in December and all unspent proceeds must be returned to the Commonwealth by January 29, 2021. Staff is currently working on a customer notification plan and the required COVID-19 attestation documentation.
- As a result of the ransomware attack on November 17, 2020, HRSD and HRUBS billing was suspended for all customers and account balances have not been updated. The Customer Care Call Center has been offline and we have not been able to answer customer inquiries over the phone since the attack. Customers will not incur late fees or interest on delayed payments as a result of this incident. As of December 7, Customer Care staff began processing payments and once the payments are posted, HRSD and HRUBS Billing will resume. Staff expects the Customer Care Center Phone system fully operational on December 8, 2020.
- Unfortunately, with the system down the November financials could not be prepared. In the meantime, staff prepared the month ending cash balances to show that we have sufficient cash reserves to continue operations until the enterprise systems are back online and billing and payments resume.

HRSD - SOURCES OF FUNDS								November 30, 2020	
Primary Source	Beginning Market Value	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value	Allocation of Funds	Credit Quality	Current Mo Avg Yield	
	July 1, 2020				Nov 30, 2020				
BAML Corp Disbursement Account	7,339,242	187,974,658	176,772,820	10,688	18,551,768	11.4%	N/A	0.55%	
VIP Stable NAV Liquidity Pool	178,660,390	10,000,000	45,000,000	156,345	143,816,735	88.6%	AAAm	0.16%	
Total Primary Source	\$ 185,999,632	\$ 197,974,658	\$ 221,772,820	\$ 167,033	\$ 162,368,503	100.0%			
Secondary Source	Beginning Market Value	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value	Ending Cost	LTD Mkt Adj		
	July 1, 2020				Nov 30, 2020				
VIP 1-3 Year High Quality Bond Fund	64,899,667	-	5,430	384,989	65,055,785	63,052,930	2,002,855		
Total Secondary Source	\$ 64,899,667	\$ -	\$ 5,430	\$ 384,989	\$ 65,055,785	\$ 63,052,930	\$ 2,002,855		

	Total	Fund Alloc
Total Primary Source	\$ 162,368,503	71.4%
Total Secondary Source	\$ 65,055,785	28.6%
TOTAL SOURCES	\$ 227,424,288	100.0%

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.49%	0.54%	0.05%
Minimum	0.01%	0.01%	0.00%
As of 11/27/20	0.11%	0.11%	0.00%

* Since October 20, 2011 HRSD has averaged 54 basis points on Variable Rate Debt

Respectfully,

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

TO: General Manager
FROM: Director of Operations
SUBJECT: Operations Report for November
DATE: December 1, 2020

A. Ransomware Attack and the Department of Operations

The most critical Operations Technology Systems were largely unaffected by the November 17 ransomware attack and all wastewater treatment and conveyance services remain fully operational. Although initially there were some challenges with the Supervisory Control and Data Acquisition (SCADA) system, staff was able to restore access within a few days. While staff is manually recording some sampling activity and maintenance activity, the Distributed Control Systems (DCS) systems at the major treatments and the programmable logic controls at Small Communities Plants remain operational.

Because of the cyberattack, certain data and metrics are not available for this month's report. To the extent practical, they will be included in next month's report.

B. Interceptor Systems

1. North Shore (NS) Interceptor Systems

There were six Sanitary Sewer Overflows (SSOs) in Hampton and Newport News. All overflows were the result of Tropical Storm Eta (Eta) passing through the region on November 12 where much of the service area saw in excess of five inches of rain over a short period of time. The spills occurred at the Victoria Blvd Pump Station (PS), Chesapeake & Clyde manhole (MH), North Ave PS, Chesapeake Ave MH, Hope & Chamberland MH, and Bayshore PS. All areas were cleaned, lime was applied, and were restored after the event. A combined estimate of 946,260 gallons of sewage was lost.

2. South Shore (SS) Interceptor Systems

There were four SSOs reported this month as a result of Eta. The following is a list of locations and reported spill quantities:

- a. At the Chesapeake Boulevard PS in Norfolk, approximately 2.4 million gallons were released into Wayne Creek, a tributary to the Lafayette River. High pressures downstream kept the pumps from getting into the system.
- b. At the Monroe PS in Norfolk, approximately 66,800 gallons were released into the Lafayette River. High downstream pressures kept the pumps from getting into the system.
- c. At the Park Avenue PS in Chesapeake, approximately 54,540 gallons were released into the Elizabeth River. High downstream pressures kept the pumps from getting into the system.

- d. At the Seay Avenue PS in Norfolk, approximately 14,800 gallons were released into the Elizabeth River. High downstream pressures kept the pumps from getting into the system.

C. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. An overflow of approximately 1,000 gallons occurred on November 4 when staff used an incorrect mode setting during the weekly raw water influent wet well cleaning. The incorrect mode caused the pumps to start creating a surge resulting in an overflow at the primary clarifier influent channel.
- b. On November 13 there was an overflow of 2,500 gallons resulting from heavy rains from Eta when flows exceeded 37 MGD. The overflow occurred at the plant drain manhole of the #1 secondary clarifier and none was recovered.
- c. Staff put an Alum tank into service.

2. Atlantic Treatment Plant (ATP)

The Thermal Hydrolysis Process (THP) start-up process continues. Staff was able to process all the plant's solids through the THP by the end of the month. The second phase of cleaning and disinfecting to produce class A solids began this month. The next phase is disinfecting digesters 3 & 4 and all associated piping.

3. Boat Harbor Treatment Plant (BHTP)

- a. On November 12th peak influent flows reached 65 MGD. Despite the very high flows, no overflows occurred.
- b. Staff completed installation of the new draft tubes on the secondary clarifier #5, after contractors completed the coatings work and repairs. Staff placed the clarifier in service during the Eta storm event in order to prevent an overflow from occurring from the secondary clarifier distribution chamber.

4. Chesapeake-Elizabeth Treatment Plant (CETP)

- a. There was one reportable air permit event this month. During the high flow event from Eta, the off-gas scrubber pH level dropped below the three-hour permitted average when the chemical feed system malfunctioned.
- b. On November 12th influent flows peaked at 61 MGD causing staff to use a small amount of polymer to help control effluent turbidities. Before the implementation of biological phosphorus (BioP) process at the plant, these high flow events required much higher dosages of polymer to ensure permit compliance.

5. James River Treatment Plant (JRTP)

Staff started work on the centrate equalization tank feed pipeline which will allow the centrate from the centrifuges to flow by gravity from the equalization tanks since struvite tends to form when pumping. Work centered on constructing pipe supports and forming foundations for pipe supports.

6. Nansemond Treatment Plant (NTP)

- a. The gearbox used to position the Hydrograv inlet on secondary clarifier #5 failed in late October. Repairs should be complete by the end of December.
- b. Contractors replaced a section of pipe to fix the leak in the Sodium Hydroxide feed line to the Struvite Recovery Facility. After pressure testing, the line was returned to service.
- c. Contractors continued the installation of new power panels and conduit to serve automated actuators on Aeration Tanks #4 through #7 inlet gates. These actuators will significantly reduce the manpower needed to move tanks in and out of service.
- d. SWIFT Research Center (SWIFT RC)
 - (1) The total volume of SWIFT recharge into the Potomac aquifer for the month of November was 15.6 MG (52% Recharge Time).
 - (2) To better understand recharge well performance, staff added 38,500 gallons of water with a chlorine concentration of 200 milligrams per liter (mg/L) and a pH level of 6.5. After backflushing the super-chlorinated water and resuming recharge operations, staff noticed that injectivity did not recover as expected. The initial thought was that biological fouling was the main cause of loss of injectivity and chlorinated would help to recover it. Currently, more than two backflushes per day are needed to ensure the wells function properly. These backflushes reduce the aquifer recharge time.
 - (3) Staff performed the quarterly maintenance activities the first week of November. During this period, 316 stainless steel (SS) coated coupons were installed inside the ozone contactor. These coupons will be inspected during the next quarterly shutdown to determine what coating, if any, can be used to protect the ozone contactor from corrosion.

7. Virginia Initiative Plant (VIP)

- a. In response to high flows from Eta, staff placed an additional aeration tank and a secondary clarifier in service. The new equalization tank was also used for the first time which successfully dampened the effects of the high flows on downstream processes.
- b. The rain event also caused a higher than normal accumulation of grit in the primary clarifiers. Even though 50 tons of grit were removed from the clarifiers the week following the rain event, the high grit content in the primary clarifier

solids caused increased solid loading to the incinerator and ash handling systems. The consequences of grit in the primary clarifier solids include increased wear and tear on solids handling pumps and centrifuges, higher temperatures at the incinerator, slagging, and more truckloads of ash required to be hauled away.

- c. Staff completed the annual cleaning and inspection of one aeration tank. The tank was in good condition, but over 40 diffuser disks needed replacement.

8. Williamsburg Treatment Plant (WBTP)

The Electrical Switchgear Project work continued on schedule. The contractor continued outfitting the new electrical building with mechanical and electrical equipment and running cable to the switchgear.

9. York River Treatment Plant (YRTP)

- a. Staff continued modifying the air supply system in aeration tanks #3 and #4 for improved nutrient removal. Work included installing air control valves and air purging units along with air supply piping.
- b. Bypass pumping of the headworks effluent pipe continued with the only issue being the failure of one of four pumps pumping headworks effluent to the primary clarifier distribution chamber. The failed pump was replaced within 24-hours of failure. The contractor replacing the failed pipe started delivering new HDPE pipe.

C. Small Communities (SC)

1. Middle Peninsula Small Communities Treatment and Collections

a. West Point Treatment Plant (WPTP)

The pre-cast concrete wet well structure for the new tertiary filter and the second final effluent pump were installed this month.

b. King Williams Treatment Plant (KWTP)

A Clean-in-Place was performed on treatment train #1 this month. Excessive rain coupled with damp conditions necessitated a substantial amount of pump and haul from the plant this month, even with the plant performing near or at its rated design capacity.

2. Small Communities – Surry Systems

The aeration system in the digester at the County plant failed. Staff from the Sussex Service Authority (SSA) worked quickly to get this system back on-line within a few days.

3. Small Communities – Lawne’s Point

Although the water levels in both holding ponds increased this month, there remains a significant amount freeboard available for winter precipitation.

D. Electrical & Instrumentation (E&I)

1. Staff assisted during the November 12th wet weather event at Lucas Creek Pump Station. A temporary generator was previously installed because the permanent generator failed during the annual load bank test. The temporary generator failed due to low coolant while supplying power to the station. In addition, the Dominion Energy utility transformer failed and was replaced during the wet weather event.
2. Contractors continued installing replacement light fixtures at BHTP and ATP as part of the Light Emitting Diode (LED) Lighting Replacements Program.

E. Water Technology and Research

The sidestream deammonification process known as DEMON was commissioned at York River Treatment Plant in October 2012. The system was originally supplied with a standalone programmable logic controller (PLC) for process control and hydrocyclones for biomass wasting and selective anammox retention. The DEMON process was successfully upgraded in a completely internal effort to move all controls to the plant distributed control system (DCS) and to install a novel sieve screen system for biomass wasting and selective anammox retention. Other miscellaneous improvements were made as part of this project.

F. MOM reporting numbers

To be provided in a future report.

G. Strategic Measurement Data

To be provided in a future report.

Respectfully submitted,

Steve de Mik

Director of Operations

TO: General Manager
FROM: Director of Talent Management (TM)
SUBJECT: Monthly Report for November 2020
DATE: December 4, 2020

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	*
Job Offers Accepted – Internal Selections	*
Job Offers Accepted – External Selections	*
Average Days to Fill Position	*

*To be included in the December report

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

- a. Continued addressing and monitoring suspected employee COVID-19 cases and potential close-contact exposures based on the Virginia Department of Health (VDH) guidelines. In November, 38 employees were quarantined due to direct exposures (external), household exposures, or due to COVID-19 symptoms; four employees had confirmed positive tests, and one employee quarantined following personal travel; one contractor reported a positive test of an employee working on HRSD sites with no direct exposure to HRSD employees. To date, there have been no work-related cases.
- b. Human Resources (HR) worked with Electrical and Energy Management to finalize the addition of badge readers for employee daily acknowledgement of COVID-19 Health assessments.

3. HR continued to partner with Operations on finalizing employee contracts for the Boat Harbor Treatment Plant (BHTP) closure. Several meetings took place to ensure all impacted employees were well informed of contract requirements and options. Contracts will go into effect January 1, 2021.

4. Benefits and Compensation

- a. Staff worked with the Benefit Consultant on open enrollment for the Retiree Medicare Supplemental plan.
- b. The Compensation and Classification team continued evaluating positions based on budget changes and Department requests.

5. Work continued with the Organizational Development consultant on the following:

- a. Conducted four sessions of *Interview Training for Hiring Managers*.

- b. Conducted several *Courageous Conversations Listening Tour* sessions and held a debrief meeting with the General Manager, Director of Communications and HR staff.
- c. Continued revising the Supervisor Training program.

6. Wellness Program

a. Participation

Year Eight Participation Activities	Unit	November 2020	Year to Date (March 2020–February 2021)
Biometric Screenings	Number	6	79
Preventive Health Exams	Number	15	131
Preventive Health Assessments	Number	12	126
Coaching Calls	Number	0	0
Online Health Improvement Programs	Number	15	176
Web-MD Online Health Tracking	Number	39	886
Challenges	Number	0	256
Fit-Bit Promotion	Number	1	52

- b. The following challenges were conducted:
 - (1) The *Maintain Don't Gain Holiday Challenge* began.
 - (2) The *Immunity Booster Challenge* was completed.
- c. Weekly, ten-minute virtual *Mindful Meditation* sessions continued.
- d. Wellness Plan requirements were modified due to programming changes as a result of COVID-19 to provide participants greater flexibility in meeting program and incentive requirements.
- e. National Diabetes Month was promoted. Employees were encouraged to take the Diabetes Risk Test.
- f. Smoking cessation tools and resources were provided to promote *The Great American Smoke-out* held on November 19.

7. A meeting was held with internal auditors to review initial findings and recommendations for the Succession Planning audit.

8. The Leadership and Management Academy introductory session was held.

9. Apprenticeship Program

- a. National Apprenticeship Week was celebrated by recognizing 67 apprentices with tokens of appreciation.
- b. Several initiatives to improve the Apprenticeship Program are in progress to include:
 - (1) Developing courses in the *Canvas* Learning Management environment
 - (2) Revamping the Electrical and Instrumentation trade
 - (3) Review of the Plant Operator Curriculum
 - (4) Developing a Student Success Program.

10. Current Respirator Fit Testing is delayed due to COVID-19; annual testing requirements and safety precautions were clarified with Virginia Occupational Safety and Health Administration. Staff worked with a medical provider to implement health screening requirements as part of fit testing.

11. Safety Manager successfully completed requirements and passed the examination to become a Certified Industrial Hygienist (CIH).

12. Safety staff met with Automotive Division supervisors to review Outside Contractor Safety Briefing materials to allow supervisors to provide briefings for short-term contracts at HRSD Pump Stations.

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

	<u>2019</u>	<u>2020</u>
Mishaps	37	28
Lost Time Mishaps	6	2
<i>Numbers subject to change pending HR review of each case.</i>		

14. Safety Division Monthly Activities

Safety Training Classes	16
Work Center Safety Inspections	8
Reported Accident Investigations	1
Construction Site Safety Evaluations	40
Contractor Safety Briefings	5
Hot Work Permits Issued	18
Confined Space Permits Issued/Reviewed	120
Industrial Hygiene Monitoring Events	2

B. Monthly Strategic Planning Metrics Summary

- 1. Education and Outreach Events: (0)
- 2. Community Partners: (0)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	November 2020
M-1.1a	Employee Turnover Rate (Total)	Percentage	*
M-1.1b	Employee Turnover - Service Retirements	Percentage	*
M-1.4a	Total Training Hours Per Full Time Employee (17) – November	Total Training Hours/ FTE	2.29
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	6.55
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	0

*To be included in the December report

Respectfully submitted,

Paula A. Hogg

Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for November 2020
DATE: December 7, 2020

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed one civil penalty this month.

Spivey Rentals, Incorporated - Chesapeake

An Enforcement Order was issued to Spivey Rentals, Incorporated, in August 2020 for an unauthorized discharge which occurred at the Chesapeake Elizabeth Treatment Plant on July 18, 2020. The Order contained an invoice for a \$2,500 Civil Penalty. The operator of Spivey Rentals, Incorporated, truck number 330 was attempting to unclog the discharge port on the vehicle when the blockage was cleared, resulting in a 1,200-gallon spill of untreated wastewater at the plant's waste receiving station. An estimated 600 gallons was not recovered and entered the environment through a storm drain on the plant site. A Show-Cause Meeting was held on August 11, 2020 after issuing the Notice of Violation. The Enforcement Order was accepted and the Civil Penalty was paid in full on September 8, 2020.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported the following activities for the month of November:
 - In collaboration with Wellness, the SEA group finalized the Bingo Challenge, an interactive way to participate in numerous community cleanup activities and awareness events. The results are as follows:
 - 371.75 bags of trash collected
 - 19 large items removed
 - 557.25 pounds of trash and recyclables removed from parks, roadsides, and storm drains
 - 42.79 total miles cleaned
 - 45.59 personal hours expended on the clean-up initiative
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

HRSD provided sampling and analytical services to Northumberland County and Westmoreland County to support monitoring required for their respective Virginia Pollution Discharge Elimination System (VPDES) permits.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1

TSD supported Fort Eustis in the development of a COVID wastewater surveillance program.

2. Community Partners: 2

- American Red Cross
- Hampton Roads Planning District Commission

3. Odor Complaints: 1

November 13 - An odor complaint was received from the Virginia Maritime Association. Work was being done on a pump at the Plume Street pump station that required sewage to be drained from the pump. The work and clean up was performed as expeditiously as possible but still generated some odors in and/or around the building. No further complaints have been received.

4. 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	*
M-1.4b	Total Training During Work Hours Per Full Time Employee (118) (Cumulative Fiscal Year-to- Date)	Total Hours / # FTE	*
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	*
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	*
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	*
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	2

Item #	Strategic Planning Measure	Unit	November 2020
	Average Daily Flow	Total MGD for all Treatment Plants	*
	Pretreatment Related System Issues	#	0

* Metrics will be reported when information is available

Respectfully submitted,

James J. Pletl, PhD
 Director of Water Quality



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

I. Projects in Process

SWIFT Program Management Plan

- **Tasks Completed (November 2020)**
 - Submitted revised draft report to Management

- **Upcoming Tasks (December 2020)**
 - Obtain Management actions plans
 - Finalize report

Fleet Services

- **Tasks Completed (November 2020)**
 - Discussed results with the Director of Finance

- **Upcoming Tasks (December 2020)**
 - Communicate draft report to Management for review

Succession Planning

- **Tasks Completed (November 2020)**
 - Discussed preliminary findings with Talent Management

- **Upcoming Tasks (December 2020)**
 - Communicate draft report to Management for review

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

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	December 2020	11	2	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	December 2020	8	3	11
Engineering Procurement	4/20/18	In process	4	4	8
Corporate Governance: Ethics Function	3/21/18	December 2020	3	2	5
Treatment Plant Operations	10/15/18	July 2021	5	4	9
Customer Care Division*	7/26/19	December 2020	0	4	4
Safety Division*	9/12/19	December 2020	0	3	3
Permitting*	2/4/20	December 2020	0	2	2
Payroll*	3/27/20	January 2021	0	3	3
Pollution Source Control*	6/2/20	February 2021	0	8	8
Totals			58	36	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.

EFFLUENT SUMMARY FOR NOVEMBER 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	14.19	79%	5	7.5	4	1	0.77	0.78	5.2	3.9	NA	NA	5
ATLANTIC	26.46	49%	12	12	5	<1	NA	NA	NA	NA	NA	NA	13
BOAT HARBOR	16.74	67%	8	6.3	3	1	0.35	0.47	21	18	NA	NA	4
CENT. MIDDLESEX	0.010	41%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	19.30	80%	20	12	23	11	0.63	1.1	27	31	NA	NA	9
JAMES RIVER	15.54	78%	5	4.1	2	1	0.33	0.34	7.3	8.6	NA	NA	3
KING WILLIAM	0.070	70%	1	<1.0	NA	<1	0.060	0.038	0.37	1.1	0.20	NA	NA
NANSEMOND	17.08	57%	4	5.7	3	<1	0.30	0.72	3.9	3.8	NA	NA	0
SURRY, COUNTY	0.054	83%	4	1.0	NA	NA	NA	NA	NA	NA	<0.50	NA	0
SURRY, TOWN	0.062	104%	2	6.1	NA	77	NA	NA	NA	NA	1.3	0.17	NA
URBANNA	0.056	56%	3	9.0	4	3	3.6	4.9	10	16	NA	4.35	NA
VIP	33.04	83%	3	3.0	1	<1	1.2	0.71	4.9	3.7	NA	NA	0
WEST POINT	0.603	100%	17	15	4	1	2.0	2.4	13	15	NA	NA	0
WILLIAMSBURG	8.87	39%	5	14	7	6	1.1	0.68	1.9	2.4	NA	NA	2
YORK RIVER	15.38	103%	2	0.73	1	1	0.16	0.25	7.1	4.8	NA	NA	1
	<u>167.46</u>												

	% of Capacity
North Shore	69%
South Shore	66%
Small Communities	85%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY20		YTD	Projection CY20	
	%	Lbs	%	%	Lbs	%
James River	73%	3,761,640	83%	70%	244,701	77%
York River	71%	228,834	79%	65%	14,533	75%
Rappahannock	195%	NA	NA	862%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY21 to Date: 6:25,366
Pounds of Pollutants Removed in FY21 to Date: 77,229,436
Pollutant Lbs Discharged/Permitted Discharge FY21 to Date: 17%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	4.05"	7.64"	3.57"
Normal for Month	3.23"	3.18"	3.16"
Year to Date Total	68.78"	51.94"	58.00"
Normal for YTD	48.24"	46.90"	45.84"

AIR EMISSIONS SUMMARY FOR NOVEMBER 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	0	0	0	0	0	0	2	N/A	N/A	0
BOAT HARBOR	0	0	0	n/a	0	0	0	1	N/A	N/A	0
CHES-ELIZ	0	0	0	0	0	0	5	0	N/A	N/A	0
VIP	0	0	0	n/a	0	0	1	1	N/A	N/A	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	N/A	N/A	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:	1
HRSD Odor Scrubber H2S Exceptions:	2