HRSD Commission Meeting Agenda
9:00 a.m. – May 23, 2023

In-person for Commissioners and essential staff at
1434 Air Rail Avenue, Virginia Beach, VA 23455

Electronic attendance via Zoom for all others

Public participation and observation of all HRSD Commission and committee meetings is available electronically via Zoom due to space limitations. To receive a link for virtual attendance or observation, or to request accommodations to attend the meeting in-person, please send your request to commissionsecretary@hrsd.com. Requests must be received by noon one business day prior to the meeting.

A member of the public who wishes to address the Commission during the meeting, either in-person or via Zoom, or to provide written comments to be read into the minutes, must register with the Commission Secretary at commissionsecretary@hrsd.com or 757.460.7003 by noon one business day prior to the meeting.

No.	Topic	Resource
	Call to Order	Rodriguez
	Roll Call of HRSD Commission	Cascio
1.	Awards and Recognition	Bernas
2.	Public Comments Not Related to the Agenda	Cascio
3.	Consent Agenda	Bernas
4.	Fiscal Year-2024 (July 1, 2023 – June 30, 2024) Budgets	Bernas
5.	Expenditure of Tax-Exempt Bond Proceeds Reimbursement Resolution for Fiscal Year (FY) 2024 – 2025	Morrison
6.	Delegation of Authority to General Manager in Connection with Delinquent Customer Accounts Resolution	Morrison
7.	Revenue Policy Commission Adopted Policy	Morrison
8.	Nutrient Credit Management Policy Commission Adopted Policy	Bernas
9.	Consent Decree – Proposed Minor Modifications Briefing	Radspinner
10.	Atlantic Treatment Plant (ATP) Master Plan Briefing	Dyer

No.	Topic	Resource
11.	Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing Additional Appropriation and Contract Award (>$200,000)	Husselbee
12.	Boat Harbor Treatment Plant Pump Station Conversion Additional Appropriation, Contract Award (>$200,000), Task Order (>$200,000)	Zuravnsky
13.	Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion and SWIFT Program Management (Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion) Approval of Stipulated Price and Task Order (>$200,000)	Zuravnsky
14.	Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Additional Appropriation, Contract Change Order (>25%)	Husselbee
15.	Middlesex Collection System – Cooks Corner Additional Appropriation	Husselbee
16.	Onancock Treatment Plant Solids Handling Improvements Initial Appropriation, and Task Order (>$200,000)	Husselbee
17.	Larchmont Area Sanitary Sewer Improvements - Hanover Avenue Pump Station Real Estate Acquisition – Fee Simple Interest 933 Hanover Avenue and 936 Cambridge Place, Norfolk	Husselbee
18.	Capital Improvement Program (CIP) Quarterly Update	Husselbee
19.	Operations & Nominations (O&N) Committee Appointment	Bernas
20.	Unfinished Business	Bernas
21.	New Business	Bernas
22.	Commissioner Comments	
23.	Informational Items	Bernas

Next Regular Commission Meeting: **June 27, 2023 in Virginia Beach**

Resource: Jay Bernas

AGENDA ITEM 1. – May 23, 2023

Subject: Awards and Recognition

Recommended Action: No action is required.

Brief: HRSD is pleased to announce the following:

a. Promotion Announcement

Dr. Christina Perez was recently promoted to Organizational Development & Training (ODT) Training Manager. Dr. Perez was hired in 2008 as a Pretreatment & Pollution Prevention Assistant and was then promoted to Water Quality Technician and then Supervising Specialist. After almost ten years in Water Quality, Dr. Perez transitioned to ODT as the Training Superintendent, where she has worked for almost six years as the Apprenticeship Program administrator and a Quality Facilitator. Dr. Perez is a certified StrengthsFinder Coach and has helped facilitate other ODT initiatives, including the recently redesigned Leadership and Management Academy. Dr. Perez has a Bachelor's of Science in Chemistry and a Master's in Environmental Engineering from Old Dominion University, a Master's in Education in Adult Education and Lifelong Learning from The Pennsylvania State University, and recently completed her Doctorate of Education in Leadership and Innovation from New York University. Dr. Perez will be leading organizational development initiatives and facilitating organizational projects related to training, coaching, gap analysis, and strategic alignment. She also looks forward to life after school, which she has been told exists but doesn't believe it just yet.

b. New Employee Introduction

Ms. Rebecca (Becky) Currall was hired in March 2023 as a Project Manager in the South Shore Design and Construction Division. Becky holds a bachelors and master's degree in Environmental Engineering from Old Dominion University and is a licensed Virginia Professional Engineer. She is an active participant in VWEA and VA-AWWA and is presently enrolled in the yearlong VA-AWWA Leadership Academy graduating in September 2023. In her new role, Becky's responsibilities will include design and construction management oversight for both capital and non-capital projects and serving on cross departmental committees as with the HRSD Design and Construction Standards.

c. Awards - United Way of South Hampton Roads

HRSD's partnership with United Way in helping our community spans over 20 years. Throughout the years HRSD has received numerous awards, and this year, HRSD earned the *"Bronze Trailblazer Award"* for the 13th consecutive year. Shawn Maxfield accepted the award on behalf of the HRSD United Way Committee.

Three awards are presented at the annual event - the Bronze Trailblazer (meets one criterion), the Silver Trailblazer (meets two criteria) and the Gold Trailblazer (meets three criteria). The criteria to receive an award are:

- All must meet a minimum of $5,000 contribution and 5 pledges
- 60 percent of company pledges
- Per capita gift minimum of $75 per person or higher
- Average contribution of $150 or more per person

HRSD had an average of $701.72 per contribution and received 54 pledges with six percent of employees contributing.

Resource: Jay Bernas

AGENDA ITEM 2. – May 23, 2023

Subject: Public Comments Not Related to Agenda

Registered speakers should advance to the podium when their names are called, state their name(s) and address(es) prior to beginning remarks. Remarks are limited to three minutes.

Resource: Jay Bernas

AGENDA ITEM 3. – May 23, 2023

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.	Carlton Scale Replacement Parts and Hardware	$1,973,280
2.	Construction Inspection Services	$10,000,000
3.	Grip SaaS Security Platform	$332,600
4.	Linear Infrastructure Projects	$10,000,000

c. Contract Change Orders

1.	Effects of low dissolved oxygen on microbial community composition and kinetics University of Kansas Center for Research, Inc. No Cost Extension (<$200,000 but >12 months)	$0

d. Sole Source

1. Enviro-Care® The Beast® Septage FOG Sludge Screening System Replacement Parts

2. MemPulse® B40N Membranes, Parts, and Services

CONSENT AGENDA ITEM 3.b.1. – May 23, 2023

Subject: Carlton Scale Replacement Parts and Hardware Contract Award (>$200,000)

Recommended Action: Award a contract to Carlton Group Inc. dba Carlton Scale in the estimated amount of $394,656 for year one with four annual renewal options and an estimated cumulative value in the amount of $1,973,280.

Regulatory Requirement: None

Type of Procurement: Sole Source

All parts and services were previously approved as a sole source with Carlton Group Inc. dba Carlton Scale in February 2020.

HRSD Estimate: $394,656

Contract Description and Analysis of Cost: This contract is an agreement for Carlton Scale replacement parts and hardware, including but not limited to, port switches, load cells, lightening protection rods, and enclosures. These scales are utilized at Atlantic Treatment Plant, Boat Harbor Treatment Plant, Nansemond Treatment Plant, Williamsburg Treatment Plant, and York River Treatment Plant. This agreement also includes the cost of travel and labor for various repairs to be made by Carlton Group Inc. dba Carlton Scale. All rates are consistent with the previous work completed by Carlton Group Inc. dba Carlton Scale on these scales.

This work is in accordance with the Commission Adopted Procurement Policy.

Resource: Bruce Husselbee

CONSENT AGENDA ITEM 3.b.2. – May 23, 2023

Subject: Construction Inspection Services
Contract Award (>$200,000)

Recommended Action: Award a professional annual services contract agreement for Construction Inspection Services with Whitman Requardt and Associates, Inc.to become effective July 1, 2023, with a maximum allowable limit of $2,500,000 per single task and accumulated $10,000,000 per year with three annual renewal options.

Regulatory Requirement: None

Type of Procurement: Competitive Negotiation

A Public Notice was issued on February 13, 2023. Four firms submitted proposals on March 14, 2023, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Three firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Whitman, Requardt and Associates	80	1
MBP	73	2
Gannett Fleming	52	3

The Selection Committee recommends award to Whitman Requardt whose professional qualifications and proposed services best serve the interest of HRSD. This contract will become effective on July 1, 2023. The workforce categories, rates, handling costs for sub-consultants and direct reimbursable costs were negotiated for the first contract year of the renewable contract.

Contract Description and Analysis of Cost: This firm will provide construction inspection for pump stations, pipelines and small treatment plant projects throughout HRSD's service area. The Professional Services Agreement establishes billing rates and reimbursement methods. Actual authorization will be addressed through individual Task Orders and Amendments. Funding for this work will be from the Engineering Department Operating Budget and/or the Capital Improvement Budget. These costs compare favorably to other similar work efforts and rates when compared to the existing Construction Inspection Services contract.

CONSENT AGENDA ITEM 3.b.3. – May 23, 2023

Subject: Grip SaaS Security Platform
Contract Award (>$200,000)

Recommended Action: Award a blanket purchase contract for Grip Software as a Server (SaaS) Security Platform to Presidio Networked Solutions Inc in the estimated amount of $199,560 for year one through three with two annual renewal options and an estimated cumulative value in the amount of $332,600.

Regulatory Requirement: None

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Procurement Division advertised and solicited bids directly from potential bidders. The project was advertised on April 21, 2023 and three bids were received on May 5, 2023 as listed below:

Bidder	Bid Amount
Presidio Networked Solutions Inc	$199,560
ePlus Technology Inc	$249,990
GRIP Security Inc	$255,000

HRSD Estimate: $225,000

Contract Description and Analysis of Cost: This contract is an agreement for Grip Security software product that is a SaaS which will provide HRSD the needed visualization and risk prioritization of HRSD SaaS footprints regardless of device or location. It provides the ability of mapping of data flows to enforce HRSD security policies to prevent data loss and provide the ability to offboard (disabling of) users from any SaaS application at any time through an automated process, single push of a button. The cost for this software is determined to be fair and reasonable based on the competitive bids and is in alignment with the estimate.

This work is in accordance with Commission Adopted Procurement Policy.

Resource: Bruce Husselbee

CONSENT AGENDA ITEM 3.b.4. – May 23, 2023

Subject: Linear Infrastructure Projects
Contract Award (>$200,000)

Recommended Action: Award a professional annual services contract to Rummel, Klepper & Kahl, LLP for the Linear Infrastructure Projects, to become effective July 1, 2023, with a maximum allowable limit of $2,500,000 per single task and accumulated $10,000,000 per year with three annual renewal options.

Type of Procurement: Competitive Negotiation

A Public Notice was issued on March 7, 2023. Seven (7) firms submitted proposals on April 3, 2023, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Three (3) firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Rummel, Klepper and Kahl, LLP	92	1
Hazen and Sawyer, P.C.	83	2
Dewberry Engineers Inc.	76	3

The Committee recommends award to Rummel, Klepper & Kahl, LLP, whose professional qualifications and proposed services best serve the interest of HRSD.

Contract Description and Analysis of Cost: This annual service contract will provide professional services including preliminary engineering report services, 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 for Linear Infrastructure Projects and for other projects related to pipeline and pumping systems. The workforce categories, rates, and direct reimbursable costs were negotiated for the first contract year of the renewable contract. These costs compare favorably to other similar work efforts and the rates used in 2022-2023 by the previous firm who held this contract. The Professional Services Agreement establishes billing rates and reimbursement methods. Actual authorization will be addressed through individual Task Orders and Amendments. Funding for this work will be from the Engineering Department Operating Budget and/or the Capital Improvement Budget.

Resource: Charles Bott

CONSENT AGENDA ITEM 3.c.1. – May 23, 2023

Subject: Effects of low dissolved oxygen on microbial community composition and kinetics
University of Kansas Center for Research, Inc.
No Cost Extension (<$200,000 but >12 months)

Recommended Action: Approve a no cost extension for an existing project with The University of Kansas Center for Research, Inc. The original contract was for $30,000 for 12 months.

Regulatory Requirement: None

Project Description: This project is supporting HRSD work at the new VIP Biological Nutrient Removal (BNR) Pilot facility where the objective is to methodically evaluate the impact of low dissolved oxygen operation on the kinetics and microbial communities of nitrifying, heterotrophic, and phosphorus accumulating organisms. The purpose of partnering with Professor Belinda Strum's group at the University of Kansas is to support a project funded by the Water Research Foundation on the same topic and to allow samples from the VIP BNR pilot to be sent to the university for microbial community analysis.

This work is in accordance with Commission Adopted Procurement Policy.

Resource: Charles Bott

CONSENT AGENDA ITEM 3.d.1. – May 23, 2023

Subject: Enviro-Care® The Beast® Septage FOG Sludge Screening System Replacement Parts Sole Source (>$10,000)

Recommended Actions: Approve the purchase of replacement parts for The Beast® Septage FOG Sludge Screening System by Enviro-Care® at all HRSD facilities.

Regulatory Requirement: None

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: Product includes the purchase of replacement parts for The Beast® Septage FOG Sludge Screening System. The screening system is located within the receiving facility and is used to remove heavy, highly concentrated solid materials from trucks that offload at the Atlantic Treatment Plant (ATP). The Beast® Septage FOG Screening System was installed in 2020 during the ATP Thermal Hydrolysis Process and FOG Receiving Station CIP upgrade.

The Beast® Septage FOG Sludge Screening System and replacement parts are sold solely by Enviro-Care® and are the only compatible parts for this system.

This work is in accordance with the Commission Adopted Procurement Policy.

Resource: Charles Bott

CONSENT AGENDA ITEM 3.d.2. – May 23, 2023

Subject: MemPulse® B40N Membranes, Parts, and Services
Sole Source (>$10,000)

Recommended Actions: Approve the use of MemPulse® B40N Membranes by Flomec Inc at King William Treatment Plant.

Regulatory Requirement: None

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: Product includes the purchase of MemPulse® B40N Membranes, Parts, and Services. This media is used for ultrafiltration of wastewater in the membrane bioreactor process. Flomec will provide the membranes that will be installed by HRSD staff at the King William Treatment Plant.

MemPulse® B40N membranes are proprietary to this filtration system and are the only membranes that fit this application.

This work is in accordance with the Commission Adopted Procurement Policy.

AGENDA ITEM 4. – May 23, 2023

Subject: Fiscal Year-2024 (July 1, 2023 – June 30, 2024) Budgets

Recommended Actions:

a. Approve the FY-2024 to FY-2043 Financial Forecast

b. Approve the Operating Budget for FY-2024, which includes the Operating, Debt Service and Transfer Appropriations, and authorize distribution of the Budget in accordance with the Trust Agreement.

c. Approve the Capital Budget for FY-2024

d. Approve the Capital Improvement Program for FY-2024 to FY-2033 (Summary Capital Improvement Program)

e. Approve the Rate Schedule, effective July 1, 2023 subject to the requirements of the Enabling Act.

Attachment: FY-2024 Annual Budget

Brief: The annual budgeting process includes updating the 20-year Financial Forecast and preparing the Operating Budget (which includes the operating, debt service and transfer appropriations), the Capital Budget and the Capital Improvement Program (CIP) as well as the corresponding Rate Schedule to support these budgets. The Commission is required to approve an annual budget in sufficient time to ensure the proposed rates, fees and charges are published in a newspaper of general circulation within the HRSD service area for four consecutive weeks.

A budget work session to review components of the budget was held after the regular Commission meeting on January 24. At the CIP meeting on March 23, attended by Commissioners Rodriguez and Levenston, staff reviewed the FY 2024 – 2033 CIP. At the April 25 Finance Committee meeting attended by all Commissioners, staff presented an overview of the FY 24 budget and CIP along with an updated 20-year financial forecast.

The FY-2024 Capital Budget is $725 million and represents the first year of an approximate $3.9 billion ten-year CIP. Projects in the CIP are individually presented to the Commission for funding authorization specific to each project at the time the first dollar is spent. Changes to the CIP, which may be required by changing conditions, are presented to the Commission as amendments. The CIP document will be available on the HRSD website upon Commission approval.

The Financial Forecast provides a wholistic forecast of HRSD's financial operations and incorporates changes to major assumptions, such as construction costs, inflationary pressures, operating cost increases, borrowing costs and revenues necessary to ensure fiscal sustainability.

The Rate Schedule contains the rates needed to generate sufficient revenue to cover expenses and reserve requirements for the next fiscal year. HRSD's uses a cost accounting process to allocate operating costs to various rates as appropriate. This year, the rate schedule includes two new Nutrient Credit Rates designed to recover the marginal operational cost to treat these pollutants and the cost associated with the capacity of assets consumed when HRSD sells nutrient credits via private agreements.

In HRSD’s Small Communities, where HRSD owns and operates both the treatment system and the collection system, residents pay the HRSD regional treatment rate, the weighted average sewer collection system rate for the metro area, plus the capital costs (Capital Recovery Rate) of the collection systems, if required.

ANNUAL BUDGET

Fiscal Year 2024

(July 1, 2023 - June 30, 2024)

HRSD

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HRSD Annual Budget For
Fiscal Year 2024
(July 1, 2023 – June 30, 2024)

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INTRODUCTION

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General Manager's Introduction

The voters of Virginia took the bold step in 1940 to address pollution in the Hampton Roads by approving a referendum creating the Hampton Roads Sanitation District (HRSD). That public approval capped a 15-year grassroots campaign that began when the shell-fishing beds in the Hampton Roads were closed by the Virginia Department of Health. At the time, over 30 million gallons of untreated sewage was being dumped into the waters of the Hampton Roads each day. It would take the United States Congress another 32 years to tackle the issue of water pollution on a national scale, finally passing the Clean Water Act in 1972.

Over the past 82 years, HRSD has developed into one of the premier wastewater treatment organizations in the nation. With 16 treatment facilities capable of treating 226 million gallons of wastewater each day from twenty cities and counties, HRSD has eliminated the discharge of untreated sewage into the waters of coastal Virginia from the homes and businesses within our region. However, there is more work to be done to further improve water quality as well as preserve our continued investment in wastewater infrastructure.

The Governor-appointed, eight-member HRSD Commission approved this Fiscal Year 2024 budget at its regular meeting on May 23, 2023. The Commission and the HRSD staff worked diligently to balance our focus on stewardship of our ratepayers' hard-earned dollars with our promise of stewardship of the waters of the Hampton Roads. The cost of wastewater treatment continues to rise as historic inflation is impacting every sector of the economy. However, wastewater treatment is still a bargain in Hampton Roads, with the typical household paying about one-penny per gallon for this essential service that protects public health and our treasured local waterways.

Chesapeake Bay Restoration

The Chesapeake Bay is a national treasure as the nation's largest estuary but suffers from nutrient pollution from three major sources: agriculture, stormwater and wastewater. With more than 18 million people living in the Chesapeake Bay watershed, wastewater is responsible for approximately 20 percent of the excess nutrients discharged into the Bay. Since 2006, HRSD has invested over $500 million in new process technology improvements and millions in annual operating costs to meet increasingly stringent federally mandated nutrient reduction limits. Unfortunately, it is not enough. The Commonwealth of Virginia has focused its efforts on removing more nutrients from HRSD wastewater facilities to meet statewide commitments required in the upper portions of the Chesapeake Bay, and to offset delays in meeting nutrient reduction goals largely in unregulated sectors such as agriculture. As a result, the General Assembly in 2021 passed legislation creating the Enhanced Nutrient Removal Certainty Program. This legislative mandate commits HRSD to invest nearly $2 billion in nutrient removal and related treatment upgrades, with a major portion of it required to be completed by 2026. The remainder of the program must be completed by 2032. These projects, many of which HRSD planned to accomplish, are now critically needed over a more compressed timeline, reducing HRSD's flexibility in implementing the most cost-effective strategies and likely increasing the overall costs.

HRSD's Integrated Plan – Prioritized Investments to Address Hampton Roads Water Issues

The regional sewer system, although never designed to handle stormwater, fills with rainwater runoff, groundwater and tidal water during larger storms. When the regional system fills beyond its capacity, a sanitary sewer overflow (SSO) occurs onto local streets. As part of the Clean Water Act, the Environmental Protection Agency (EPA) has made minimizing these types of events a national priority; but it comes at a tremendous financial burden. SSOs in Hampton Roads are relatively rare, since the regional system has separate stormwater and sanitary sewer pipes, as opposed to a combined system

that is common is larger cities. HRSD remains committed to eliminating SSOs; however, the impact of those transient events on local water quality is minimal and the benefits of their elimination is nearly unperceivable.

In 2014, as part of the EPA negotiations and to save the region money, HRSD and the cities and counties HRSD serves (collectively, Localities) agreed to a cooperative regional approach to increase the region's wet weather flow capacity. Even though HRSD does not own the Localities' collection systems in the metropolitan region of Hampton Roads, HRSD agreed to make prioritized capacity-related improvements to its and the Localities' systems resulting in a significant reduction of overall program compliance costs.

More recently, the EPA has shifted to a more prioritized "one water" approach through their Integrated Planning framework. The Integrated Planning framework allows entities to "best prioritize capital investments and achieve our human health and water quality objectives." After years of negotiations with EPA and other key stakeholders, HRSD's Integrated Plan was approved on February 8, 2022. The plan was a collaborative effort between HRSD, EPA, the Virginia Department of Environmental Quality (DEQ) and the Localities that allows us to prioritize our region's most important water quality issues.

HRSD's SWIFT Program Offers Multiple Benefits and Saves the Region $5 Billion

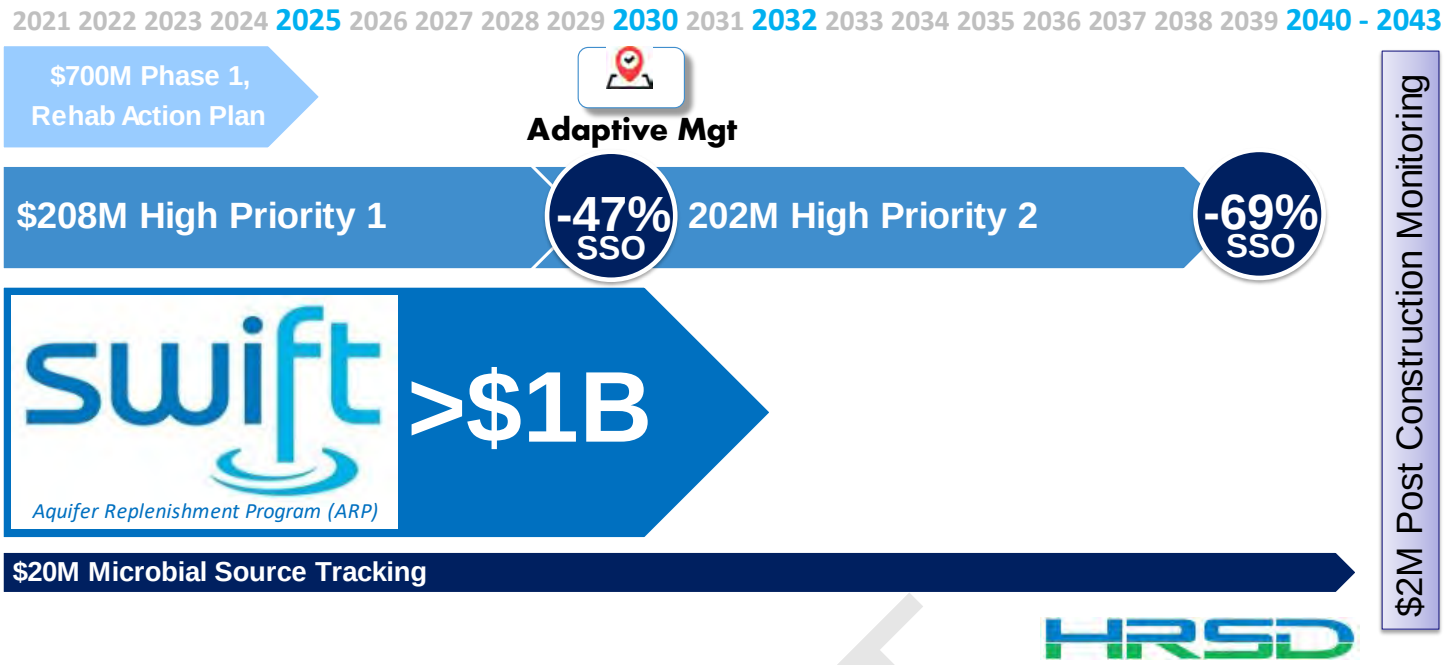
At the heart of the Integrated Plan is HRSD's Sustainable Water Initiative for Tomorrow (SWIFT) program. This program will take HRSD's already highly treated water that would otherwise be discharged into the James and Elizabeth rivers and further treat it to meet drinking water standards to be used to recharge the groundwater aquifer. SWIFT will help to:

- Provide a sustainable source of groundwater
- Slow the rate of land subsidence due to over withdrawal of the aquifer
- Block saltwater intrusion by creating a pressurized freshwater barrier, and
- Significantly reduce HRSD's nutrient discharges to the James and Elizabeth rivers.

As a result of the projected reduction in nutrients, HRSD established nutrient trading agreements with each Locality allowing them to save over $2 billion in required stormwater retrofits required by the end of 2025.

Given SWIFT's significant environmental benefits for the region, HRSD is prioritizing SWIFT construction efforts and implementing two phases of high priority wet weather projects in our Integrated Plan. The key regulatory requirements include:

- $250 million in improvements as part of our Rehabilitation Action Plan by 2025
- $208 million of High Priority Wet Weather Projects from 2020 to 2030 to remove 47 percent of projected SSO volume
- $202 million of additional High Priority Wet Weather Projects from 2031 to 2040 to remove an additional 22 percent of SSO volume for a total reduction of 69 percent
- Over $1 billion spent on SWIFT through 2032, and
- $20 million in microbial source tracking through 2040.



HRSD's Integrated Plan not only complies with the Clean Water Act for SSOs, but also with nutrient reduction requirements for the Chesapeake Bay restoration. Between 2021 and 2028, over 70 percent of the total nitrogen and over 50 percent of the phosphorus will be eliminated from the Lower James River Basin.

In addition to helping to provide a sustainable groundwater supply, reducing the rate of land subsidence to lessen the effects of sea level rise in the region, protecting the aquifer from saltwater intrusion, and improving the health of the Chesapeake Bay, HRSD's regional approach to these regulatory requirements will save the region approximately $5 billion compared with each Locality needing to comply with the Clean Water Act and Chesapeake Bay nutrient reductions individually.

Pursuing Innovative Solutions to Reduce Costs and Protect Water Quality

HRSD continues to lead international research efforts to reduce the cost of removing nutrients from wastewater and to intensify treatment processes. HRSD's research work is leveraged through partnerships with leading universities and other innovative wastewater utilities throughout the world. Putting the knowledge gained into practice has already yielded a significant return on our investment by reducing operating costs for nutrient removal, as well as minimizing the need for certain capital investments. These efforts have reduced HRSD's energy and chemical costs by nearly $40 million over the past 10 years.

Financing a Sustainable Water Future

HRSD is investing in the regional wastewater infrastructure to ensure we leave a fully functional system to the next generation. While HRSD continues to focus on making the right investments at the right time in Hampton Roads, across the nation the need for investment in all infrastructure continues to grow. The American Society of Civil Engineers' 2021 Infrastructure Report Card graded the current state of wastewater infrastructure at a D+. The US Water Alliance's Report, The Economic Benefits of Investing in Water Infrastructure, estimates the unmet water investment at over $81 billion per year. The report highlights the lack of adequate federal investment in wastewater infrastructure, showing the drop in federal investment from 63 percent in 1977 to less than 4 percent in 2017. State, regional and local governments have had to fill that funding gap, passing on significant rate increases as utilities must price service to recover full costs.

With 73 percent of HRSD's $3.7 billion ten-year CIP necessitated by changing environmental regulations, HRSD must continue to raise its rates. To lower costs to its ratepayers, HRSD seeks the lowest cost of capital to finance its infrastructure requirements. HRSD is the largest borrower in the Commonwealth of Virginia Clean Water Revolving Loan Funds (VCWRLF) issued by the DEQ and the Virginia Resources Authority . VCWRLF is a federally subsidized program that offers up to a 1.5 percent interest rate subsidy for 20-year loans. HRSD also secured $1.05 billion in federally subsidized Water Infrastructure Finance and Innovation Act (WIFIA) programmatic loans for SWIFT. Approximately, $700 million of those loans have a locked-in interest rate of 1.78 percent. These strategies when compared to current market rates, will save our ratepayers over $600 million. HRSD is also actively applying for various grants to help fund our CIP.

The Community's Role

Our ratepayers can help control their costs by helping us control ours. Ensuring storm water runoff from downspouts, area drains, and sump pumps is not directed to the sanitary sewer system, and ensuring privately-owned service piping is well maintained and leak free will reduce the amount of water entering the sewer system. Collecting fats, oils and grease in a container for disposal in the trash, as opposed to pouring them down the drain, reduces wastewater system maintenance and operating costs. Proper disposal of unused medications (and other substances) prevents them from reaching our treatment plants, which are not designed for removal of such substances. Our ratepayers can make a difference by not flushing unused medications down the sink or the toilet. Every flush counts.

As we reflect on nearly 82 years of protecting public health and the waters of Hampton Roads, we remember the mandate so boldly declared by those environmentally concerned Virginians in 1940. It was their foresight that allows us to enjoy the waters of Hampton Roads today. It will take our continued innovation, investment and foresight to ensure future generations will inherit clean waterways and be able to keep them clean.

Sincerely,

Jay A. Bernas, PE
General Manager

Principal Officials

May 1, 2023

COMMISSIONERS

Stephen C. Rodriguez, Chair

Frederick N. Elofson, CPA, Vice-Chair

Michael E. Glenn

Vishnu K. Lakdawala, PhD

Willie Levenston, Jr.

Nancy J. Stern

Elizabeth A. Taraski, PhD

Ann W. Templeman

COMMISSION SECRETARY

Jennifer L. Cascio

ASSISTANT COMMISSION SECRETARY

Elizabeth I. Scott

SENIOR STAFF

Jay A. Bernas, PE
General Manager

Steven G. de Mik, CPA
Deputy General Manager/CFO
Director of Finance and Treasurer

Eddie Abisaab, PE, PMP, ENV SP
Director of Operations

Charles B. Bott, PhD, PE, BCEE
Director of Water Technology & Research

Donald C. Corrado
Director of Information Technology

Bruce W. Husselbee, PhD, PE
Director of Engineering

Jamie Heisig-Mitchell
Director of Water Quality

Dorissa Pitts-Paige, PHR, IPMA-SCP, SHRM-SCP
Director of Talent Management

Leila Rice, APR
Director of Communications

COUNSEL

Sands Anderson, PC
General Counsel

AquaLaw, PLC
Special Counsel

Norton Rose Fulbright US, LLP
Bond Counsel

Key Facts

Service Area and Operations

Date Established	November 5, 1940
Communities Served	20 communities encompassing 4,998 square miles
	HRSD is a political subdivision of the Commonwealth of Virginia, created for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants.
Population Served	About 1.9 million, nearly one-fifth of Virginia's population, reside in HRSD's service area.

Operation and Facilities

No. of Positions (FY-2024)	905
Miles of Interceptor Systems	538 Miles
Wastewater Treated	132 million gallons per day average
Wastewater Capacity	226 million gallons per day average

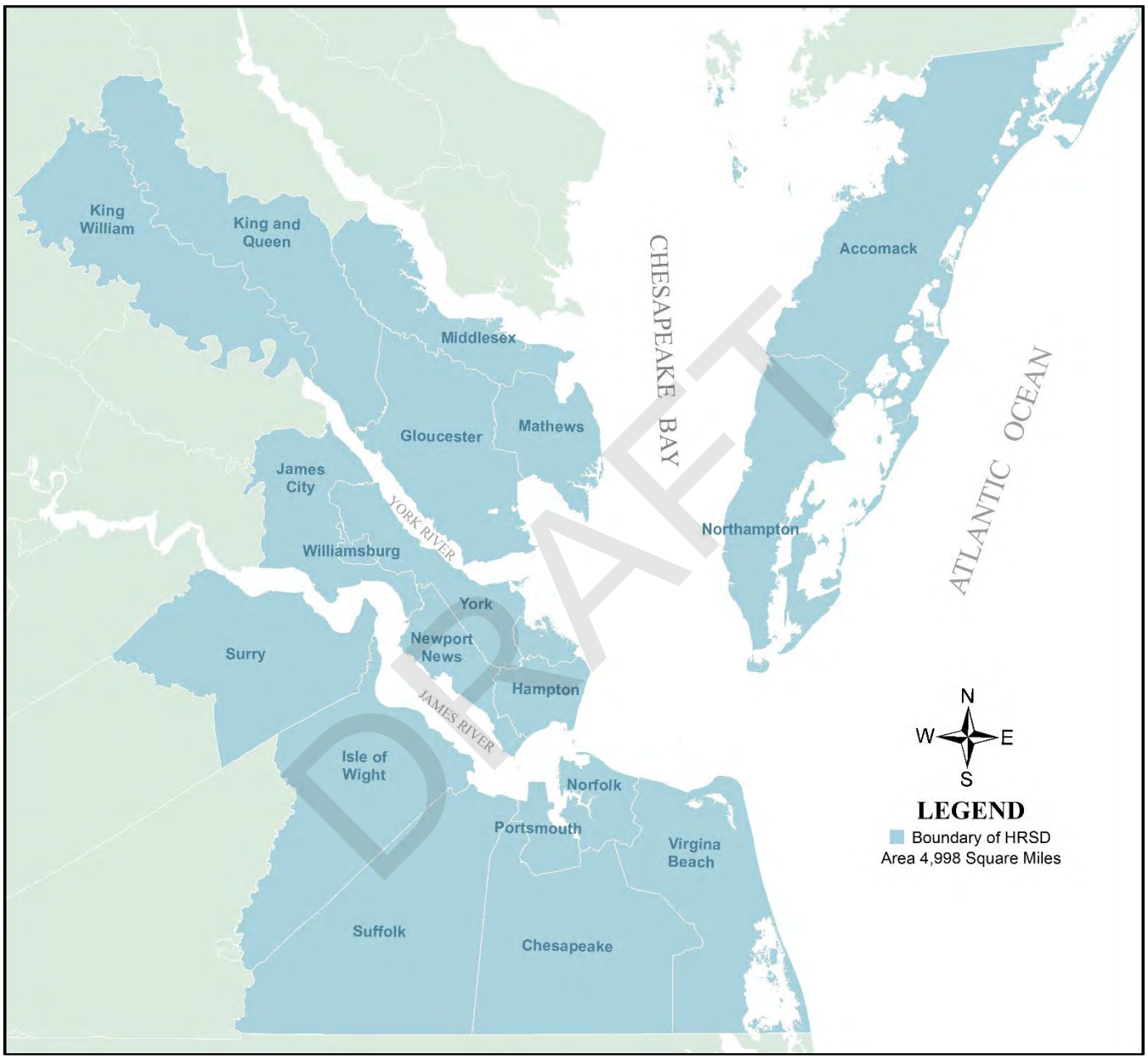
Financial Information

Bond Ratings

Ratings Agency	Senior Debt	Subordinate Long-term	Subordinate Short-term
Standard & Poor's	AA+	AA+	A-1+
Fitch Ratings	AA+	AA	F1+
Moody's Investors Service	Aa1	Aa1	n/a

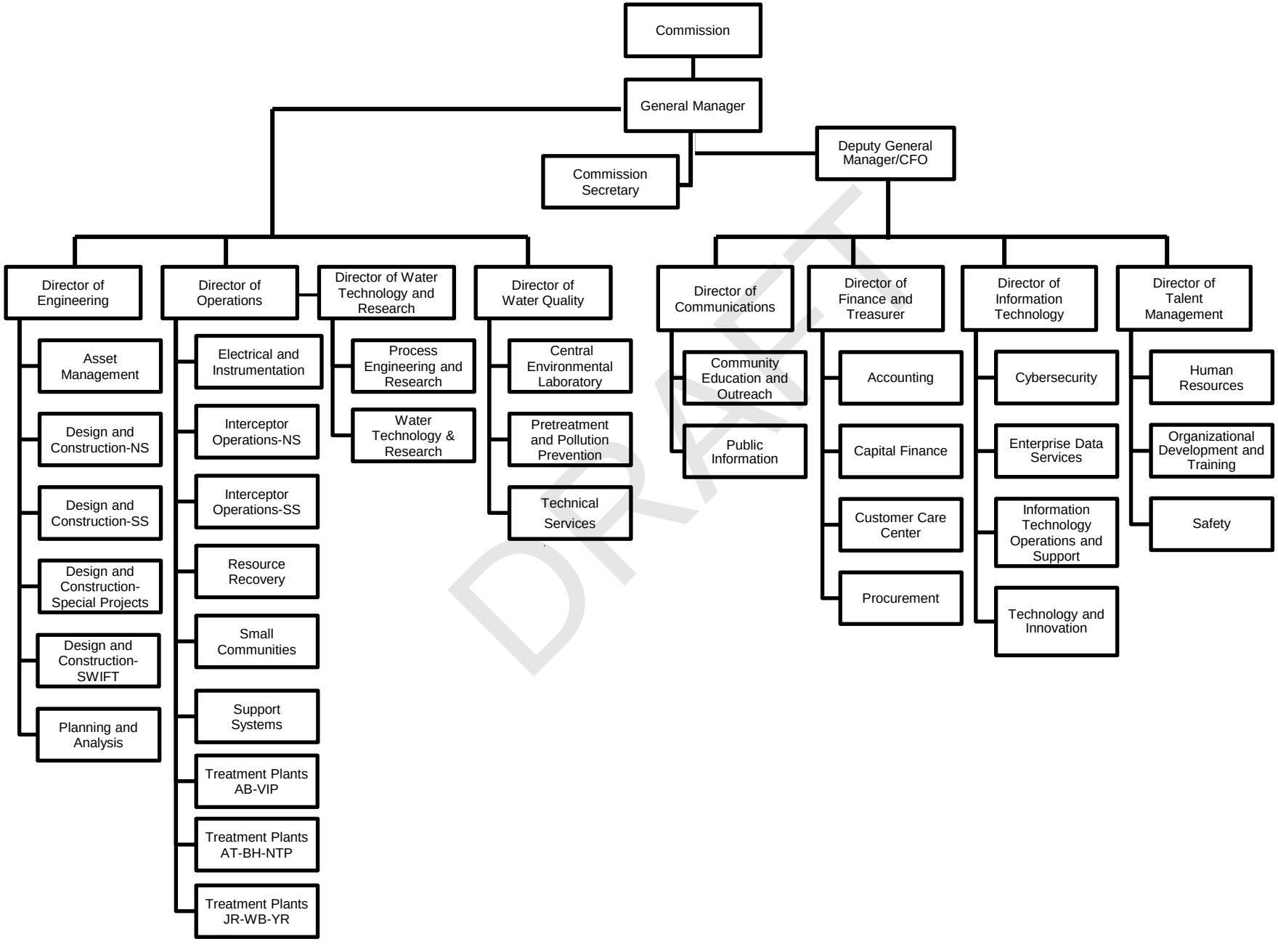
Operating Budget (FY-2024) $428,490,000

HRSD Service Area



HRSD Organization Chart

July 1, 2023



History of HRSD

HRSD can trace its beginnings to 1925 when the Virginia Department of Health condemned a large oyster producing area in Hampton Roads. The closure resulted in the Virginia General Assembly creating in 1927 a "Commission to Investigate and Survey the Seafood Industry of Virginia." Other studies recommended a public body to construct and operate a sewage system in the area. HRSD was named after Hampton Roads, a ship anchorage used for five centuries located near the convergence of the James, Elizabeth and Nansemond Rivers, before they flow into the Chesapeake Bay in southeastern Virginia.

In 1934, the Virginia General Assembly created the Hampton Roads Sanitation Disposal Commission with instructions to plan the elimination of pollution in Hampton Roads. Recommendations were made to the General Assembly, which resulted in the Sanitary Districts Law of 1938, along with "an Act to provide for and create the Hampton Roads Sanitation District." This Act required the qualified voters within HRSD to decide in a general election on November 8, 1938, if they favored creation of such a District. This referendum failed to gain a majority by about 500 votes out of nearly 20,000 votes cast. This led to a revision of the Act and another referendum was held on November 5, 1940, which resulted in a majority vote for the creation of the Hampton Roads Sanitation District.

The Enabling Act provides for HRSD to operate as a political subdivision of the Commonwealth of Virginia for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants. Its affairs are controlled by a Commission of eight members appointed by the Governor for four-year terms. Administration is under the direction of a General Manager, supported by department directors and their staffs.

HRSD began operations on July 1, 1946, using facilities acquired from the United States Government. The Warwick County Trunk Sewer, HRSD's first construction project, began on June 26, 1946, and was funded by HRSD's $6.5 million Primary Pledge Sewer Revenue Bonds, dated March 1, 1946. The first treatment plant, the Army Base Plant, began operation on October 14, 1947. Since that time, the facilities of HRSD have grown to provide sanitary sewer service to all major population centers in southeastern Virginia. The population served has increased from nearly 288,000 in 1940 to about 1.9 million in 2023.

Throughout its rich history HRSD has earned many of its industry’s most prestigious awards. This tradition continued as HRSD received the 2023 Governor’s Environmental Excellence Gold Award for its collaboration with DC Water on development of Next Generation Mainstream Nitrogen Removal Technology through Partial Denitirification-Anammopx (PdNA).

Additional awards and honors received during the year ended June 30, 2023 include the 2022 Water Environment Federation (WEF) Project Excellence Award for the Providence Road Offline Storage Facility Woodstock Park Improvements Project, as well as the Design-Build Institute of America (DBIA) Design-Build Merit Award and Design-Build Award of Excellence in the Water/Wastewater sector for the same project. HRSD also earned the National Association of Clean Water Agencies (NACWA) National Environmental Achievement Awards in the categories of Research and Technology, Public Information and Education and Workforce Development, as well as the 2023 Grand and Pinnacle awards from the American Council of Engineering Companies (ACEC) of Virginia for the Chesapeake-Elizabeth Interceptor Diversion Improvements Project. The HRSD Finance Department also earned the George F. Ames PISCES award in the Innovative Finance category from the Environmental Protection Agency (EPA).

Rate Schedules

WASTEWATER TREATMENT RATE SCHEDULE

Service	FY-2024		FY-2023	
Flow (monthly basis)				
Per CCF *		$ 7.60		$ 6.97
Minimum charge (per day)		0.30		0.30
Surcharge, per milligrams/liter per CCF	In Excess of		In Excess of	
Biochemical Oxygen Demand (BOD)	297 mg/L	$ 0.000185	297 mg/L	$ 0.000185
Total Suspended Solids (TSS)	282 mg/L	0.000612	282 mg/L	0.000611
Total Phosphorus (TP)	7 mg/L	0.009258	7 mg/L	0.009531
Total Kjeldahl Nitrogen (TKN)	57 mg/L	0.002784	57 mg/L	0.002705
Surcharge, per 100 pounds				
Biochemical Oxygen Demand (BOD)	297 mg/L	$ 2.96	297 mg/L	$ 2.97
Total Suspended Solids (TSS)	282 mg/L	9.80	282 mg/L	9.79
Total Phosphorus (TP)	7 mg/L	148.30	7 mg/L	152.67
Total Kjeldahl Nitrogen (TKN)	57 mg/L	44.59	57 mg/L	43.33
Nutrient Credits				
Asset Charge ($/pound/year)				
Total Suspended Solids (TSS)		$ 8.39		$ -
Total Phosphorus (TP)		58.55		-
Total Nitrogen (TN)		13.49		-
Operational Charge ($/pound)				
Total Suspended Solids (TSS)		$ 0.1274		$ -
Total Phosphorus (TP)		1.0226		-
Total Nitrogen (TN)		0.2897		-
Other Approved Hauled Wastes (per gallon)		$ 0.1812		$ 0.1812
Fats, Oils, and Grease (FOG) (per gallon)		0.3517		0.3339
Town Wholesale Treatment (per 1000 gallons)		3.55		3.55
Residential flat rate (per day)		2.00		1.93

* CCF = 100 Cubic Feet (approximately 748 gallons)

VOLUME BASED FACILITY RATE SCHEDULE

Meter Size	FY-2024	FY-2023
5/8 Inch	$ 2,420	$ 2,285
3/4 Inch	4,210	4,210
1 Inch	7,410	7,410
1 ½ Inch	18,395	17,590
2 Inch	35,825	34,415
3 Inch	91,665	88,570
4 Inch	178,485	173,245
6 Inch	456,620	445,910
8 Inch	889,185	872,130
10 Inch	1,491,070	1,467,435
12 Inch	2,274,730	2,244,900
14 Inch	3,251,050	3,215,910
16 Inch	4,429,645	4,390,660

Rate Schedules

SMALL COMMUNITIES RATE SCHEDULE

Flow (monthly basis) per 1,000 gallons	FY-2024	FY-2023
Eastern Shore	$ 16.08	$ 15.13
King William	16.31	15.37
Mathews	16.08	15.13
Middlesex/Urbanna	16.08	15.13
Surry	16.08	15.13
West Point	16.08	15.13
Residential flat rate (per day)		
Eastern Shore	$ 2.21	$ 2.02
King William	2.24	2.05
Mathews	2.21	2.02
Surry	2.21	2.02
Middlesex/Urbanna	2.21	2.02
West Point	2.21	2.02
Minimum charge - metered accounts (per day)	$ 0.30	$ 0.30

FEES

	FY-2024	FY-2023
Damaged meter/antenna (plus cost of meter/antenna)	$ 250	$ 250
Damaged lock	100	100
Service restoration	100	100
Meter reading (customer-owned meter)	75	75
Inaccessible meter	50	50
Access card replacement	25	25
Returned payments	25	25
Delinquency service trip	15	15
Account documentation	10	10
Deduction meter	2	2

Readers Guide to the Annual Budget

PURPOSE

The Annual Budget is an instrument that sets HRSD's budgetary policy and authorization to raise revenues and spend funds each fiscal year. The development of the Annual Budget is guided by HRSD's promise and vision statements:

- Promise: We promise to treat wastewater and recover natural resources to protect public health and the environment.
- Vision: Our communities will have clean waterways and reliable water resources for generations to come.

ANNUAL BUDGET OVERVIEW

HRSD's Annual Budget contains the following sections:

Financial Forecast

This section provides a high level, 20-year forecast of projected wastewater treatment rate increases, operating revenues and expenses, capital improvements and related funding sources, amounts contributed to and fiscal year-end balances of cash and investment reserves, and selected financial ratios that help to measure the financial health of HRSD. The forecast is an inflationary based model where trends from past fiscal years and proposed operating budgets are used to forecast future operating needs. Transfers to reserves and to the Capital budget are forecast to be in amounts that are not less than parameters established within HRSD's Financial Policy. Debt service is based on different sources of future funding: Virginia Clean Water Revolving Fund, Water Infrustructure Finance and Innovation Act (WIFIA), interim financing and revenue bonds. Interest rates are based on known rates or historical averages.

Operating Budget

The Operating Budget represents the authorization by the HRSD Commission to spend funds directly related to operating and maintaining HRSD's programs and assets during the fiscal year. This section includes each department's annual operating budgets. Those expenses that are not attributable to a specific department are assigned to "General Expenses." Transfers represent authorization to transfer revenues raised from operations to either the Capital Budget or to various reserves established in HRSD's Financial Policy. The Operating Budget Summary provides the budget by department and major object code classification. Department Budgets and General Expenses, Debt Service and Transfers detail budget expenditures by major object code classification. The number of full-time positions authorized for the fiscal year is provided by department.

Capital Budget

The Capital Budget represents a plan of specific, major capital improvements over a period of ten fiscal years. The Capital Budget is not an approval or appropriation of funds for individual projects. There is no authorization or funding for individual projects until the Commission acts on the specific project. The Commission formally authorizes spending for individual projects throughout a fiscal year and generally upon project initiation.

The Summary Schedule details the funding sources for capital improvements as well as planned expenditures.

A formal, detailed, Capital Improvement Program with more specific project information is available at https://www.hrsd.com/cip.

HRSD's budget authorizations, capital improvement plans, user rate setting practices and other significant financial practices are guided by HRSD's Financial Policy and Revenue Policy. The Financial Policy and Revenue Policy are available at http://www.hrsd.com/finance.

HRSD's Rate Schedule is available at http://www.hrsd.com/finance.

BUDGETARY PROCESS

HRSD prepares its Annual Budget under the provisions of its enabling legislation and its Trust Agreement, dated March 1, 2008. In accordance with those provisions, the following process is used to adopt the Annual Budget:

- The process begins in late December with the issuance of the Annual Budget Instructions by the General Manager. Each department completes its Operating Budget by March 1 for the General Manager's review.

- The HRSD Commission appoints a Finance Committee which typically consists of two Commissioners. The committee meets in early April to review the budgets. The Commission reviews these budgets during its April meeting.

- The final Annual Budget, which incorporates the Operating and Capital Budgets, is presented at the May Commission meeting for adoption. The Commission simultaneously adopts the budget and any resulting wastewater rate schedule changes. All rate adjustments must be publically advertised four consecutive weeks before they can take effect.

- The HRSD Commission approves any budget amendments during the fiscal year.

BUDGETARY ACCOUNTING AND CONTROL

HRSD operates in accordance with annual operating and capital budgets prepared on a basis of accounting that is different from generally accepted accounting principles.

The Operating Budget is adopted by department, with budgetary controls exercised administratively by management at the department level. The General Manager is authorized to transfer funds among departments without further approval by the Commission. Appropriations lapse at the end of the fiscal year. Valid, outstanding encumbrances (those for which performance under a contract is expected in the next year) are re-appropriated without further approval by the Commission and become part of the subsequent year's budget.

The Capital Budget represents a ten-year plan. Funds for the Capital Budget are adopted throughout a fiscal year on a project basis. Transfers among projects require approval by the Commission. Appropriations for these budgets continue until the purpose of the appropriation has been fulfilled.

Glossary of Financial Terms

Adjusted Days Cash on Hand: Days Cash on Hand that excludes accrued debt service, the Risk Reserve, the Renewal and Replacement Reserve, and cash budgeted for the CIP in the next fiscal year.

Appropriation: An authorization granted by the Commission to incur obligations for specific purposes. Appropriations are usually limited to amount, purpose and time.

Basis of Accounting: HRSD's financial statements report the financial position and results of operations of HRSD in accordance with generally accepted accounting principles in the United States of America (GAAP).

Bond Ratings: A grade given to bonds that represents a measure of their credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these evaluations of a bond issuer's financial strength, or its the ability to pay a bond's principal and interest in a timely fashion.

Capital Improvement Program (CIP): Ten-year plan for major non-recurring facility, infrastructure, or acquisition expenditures that expand or improve HRSD and/or locality assets. Projects included in the CIP include physical descriptions, implementation schedules, year of expenditure cost and funding source estimates, and an indication of HRSD Commission priorities and community benefits

Centum Cubic Feet (CCF): Typical unit in which industrial-consumption of natural gas or water is measured; each CCF being 100 cubic-feet.

CIP Percent Cash Funded: Percent of each year's capital improvement plan funded with cash through transfers from operations. HRSD's Financial Policy requires that at least 15 percent of each year's planned capital improvements be funded with cash. This ratio indicates the amount of capital improvements that are not leveraged.

Days Cash on Hand: Measured by current and non-current unrestricted cash and investments, plus any restricted cash and investments, if available for general system purposes, divided by Operating Expenses, divided by 365.

Debt Service: Amount of money necessary to pay principal and interest on bonds outstanding.

Debt Service as a Percent of Revenues: Total revenues divided by total debt service. This ratio measures the debt service burden compared to total revenues.

Risk Management Reserve: HRSD maintains a self-insurance program for some of its risk exposures. HRSD'S Financial Policy requires HRSD to maintain a Risk Management Reserve as of the end of the fiscal year of not less than 25 percent of projected annual self-insured claims costs for known, retained risks.

Senior Debt Service Coverage: Current-year revenues available for debt service divided by current-year senior lien debt service. This ratio indicates the financial margin to meet current senior lien debt service with current revenues available. HRSD's Financial Policy requires that Senior Debt Service Coverage will not be less than 1.5 times senior lien debt service. When calculating compliance with this coverage requirement, HRSD may make reasonable adjustments to the net revenues as presented on a basis consistent with generally accepted accounting principles. HRSD's Senior Trust

Agreement requires Senior Debt Service Coverage, which is determined by dividing the Income Available for Debt Service by the Maximum Annual Debt Service, will not be less than 1.2 times.

Total Debt Service (Adjusted): Calculated in accordance with HRSD's Subordinate Trust Agreement, the ratio determined by dividing the Net Revenues by annual debt service. In such calculation, funds spent on Locality Assets may be excluded from the calculation of Net Revenues under the circumstances described within the definitions of Net Revenues and Operating Expenses. Annual debt service will be based on actual principal and interest payments during the year (i.e., not accrual based).

Total Debt Service Coverage Ratio (GAAP): Calculated in accordance with HRSD's Senior Trust Agreement, the ratio determined by dividing the Net Revenues by annual debt service. In such calculation, funds spent on Locality Assets are considered an expense. Annual debt service will be based on actual principal and interest payments during the year (i.e., not accrual based).

Trust Agreement: The formal agreement between bond holders, acting through a trustee, and HRSD.

Unrestricted Cash: Unrestricted cash and investments at fiscal year-end that are not earmarked for another purpose.

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FINANCIAL FORECAST

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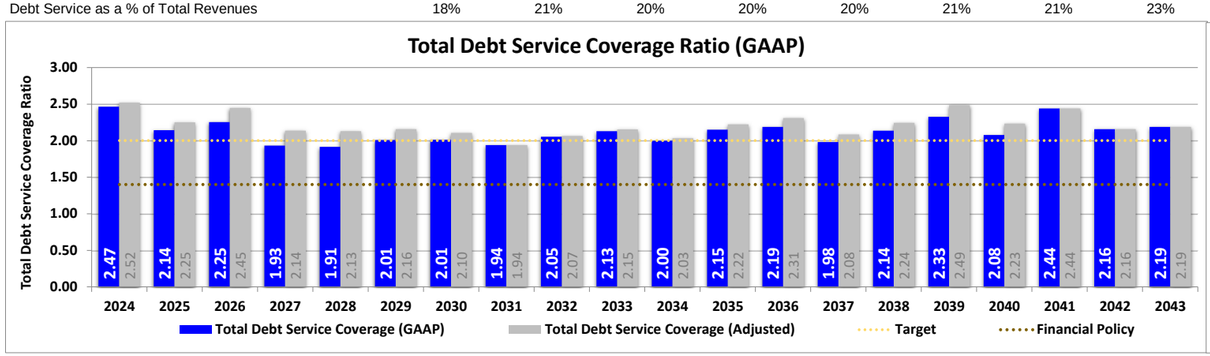
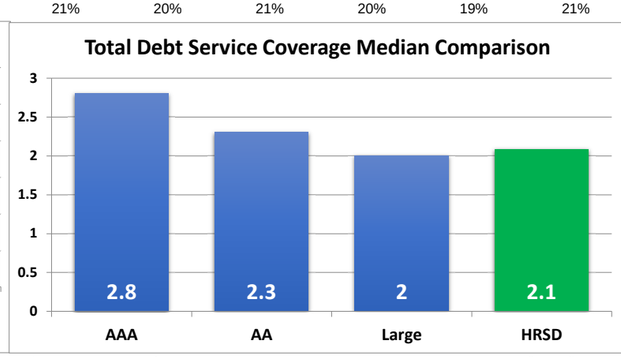
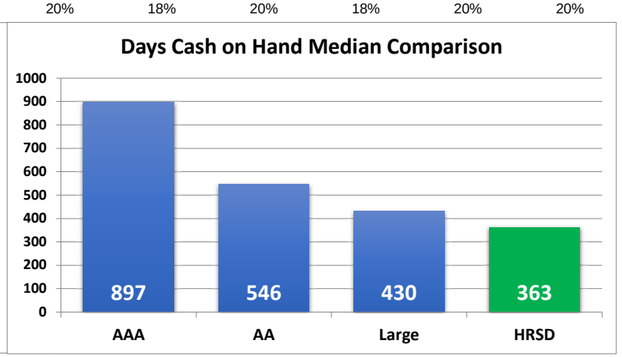
Financial Forecast (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Operating Budget Forecast																				
Projected Annual Water Consumption Decline	*0.0%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*	*-0.6%*
Projected Wastewater Rate Increase	*9.0%*	*9.0%*	*9.0%*	*9.0%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Projected Wastewater Rate , $/ccf	*$7.60*	*$8.28*	*$9.03*	*$9.84*	*$10.38*	*$10.95*	*$11.55*	*$12.19*	*$12.86*	*$13.37*	*$13.90*	*$14.46*	*$15.04*	*$15.64*	*$16.27*	*$16.92*	*$17.60*	*$18.30*	*$19.03*	*$19.79*
Revenues																				
Operating Revenues	$ 416,121	$ 449,229	$ 485,556	$ 524,526	$ 549,174	$ 575,037	$ 602,090	$ 630,811	$ 660,669	$ 682,189	$ 704,417	$ 727,829	$ 751,912	$ 776,652	$ 802,517	$ 829,004	$ 856,575	$ 884,735	$ 913,940	$ 944,169
Non-operating Revenues	12,369	15,974	15,060	16,134	16,348	16,552	17,137	17,375	17,883	18,063	18,287	18,438	18,634	18,875	19,042	19,255	19,530	19,798	20,219	20,603
Total Revenues	**428,490**	**465,203**	**500,616**	**540,661**	**565,522**	**591,589**	**619,227**	**648,187**	**678,552**	**700,252**	**722,704**	**746,267**	**770,546**	**795,527**	**821,559**	**848,258**	**876,105**	**904,533**	**934,159**	**964,772**
	YOY Op Rev	*8.0%*	*8.1%*	*8.0%*	*4.7%*	*4.7%*	*4.7%*	*4.8%*	*4.7%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*
Operating Expenses																				
Personal Services	70,450	77,495	82,145	84,938	87,826	90,812	93,899	97,092	100,393	103,405	106,507	109,702	112,993	116,383	119,875	123,471	127,175	130,990	134,920	138,968
Fringe Benefits	28,486	30,155	31,689	32,728	33,802	34,911	36,057	37,240	38,462	39,616	40,804	42,029	43,289	44,588	45,926	47,304	48,723	50,184	51,690	53,241
Materials And Supplies	25,122	26,881	28,762	30,488	32,317	33,933	35,630	37,411	39,282	40,460	41,674	42,924	44,212	45,539	46,905	48,312	49,761	51,254	52,792	54,375
Transportation	1,105	1,182	1,265	1,341	1,422	1,493	1,567	1,646	1,728	1,780	1,833	1,888	1,945	2,003	2,063	2,125	2,189	2,255	2,322	2,392
Transportation Fuels	888	950	1,017	1,078	1,142	1,199	1,259	1,322	1,388	1,430	1,473	1,517	1,563	1,610	1,658	1,708	1,759	1,812	1,866	1,922
Utilities	16,749	17,921	19,176	20,327	21,546	22,623	23,755	24,942	26,189	26,975	27,784	28,618	29,476	30,361	31,272	32,210	33,176	34,171	35,196	36,252
Chemical Purchases	17,093	18,290	19,570	20,744	21,989	23,088	24,243	25,455	26,728	27,530	28,355	29,206	30,082	30,985	31,914	32,872	33,858	34,874	35,920	36,997
Contractual Services	35,086	36,840	38,682	40,616	42,647	44,779	47,018	49,369	51,838	53,393	54,995	56,645	58,344	60,094	61,897	63,754	65,667	67,637	69,666	71,756
Consulting Services	2,122	2,228	2,339	2,456	2,579	2,708	2,843	2,985	3,135	3,229	3,325	3,425	3,528	3,634	3,743	3,855	3,971	4,090	4,213	4,339
Miscellaneous Expenses	8,097	8,410	8,737	9,077	9,432	9,802	10,189	10,592	11,012	11,342	11,683	12,033	12,394	12,766	13,149	13,543	13,950	14,368	14,799	15,243
Bond Issuance Cost	600	1,444	-	-	-	-	-	-	-	-	1,559	-	-	1,591	-	-	2,240	702	1,612	557
Capital Assets	1,065	1,096	1,129	1,163	1,198	1,234	1,271	1,309	1,348	1,389	1,431	1,474	1,518	1,563	1,610	1,658	1,708	1,759	1,812	1,867
Other Costs (SWIFT O&M, Plant Consolidation)	-	-	-	36,279	37,755	39,291	55,723	57,979	70,709	73,586	76,580	79,695	82,937	86,309	89,819	93,470	97,269	101,222	105,335	109,614
Total Operating Appropriations from Budget	**206,863**	**222,894**	**234,511**	**281,236**	**293,655**	**305,875**	**333,454**	**347,343**	**372,212**	**384,135**	**398,004**	**409,156**	**422,282**	**437,426**	**449,830**	**464,281**	**481,444**	**495,317**	**512,142**	**527,522**
	YOY Op Exp	*7.7%*	*5.2%*	*19.9%*	*4.4%*	*4.2%*	*9.0%*	*4.2%*	*7.2%*	*3.2%*	*3.6%*	*2.8%*	*3.2%*	*3.6%*	*2.8%*	*3.2%*	*3.7%*	*2.9%*	*3.4%*	*3.0%*
Existing Debt Service	69,728	70,959	71,161	70,983	67,438	77,002	76,714	92,655	87,675	85,710	84,603	84,039	81,062	81,056	80,754	65,904	58,042	50,716	60,448	58,420
Projected Debt Service (Clean Water, WIFIA, LOC)	7,298	24,916	28,423	36,035	44,811	47,526	51,090	53,822	52,644	53,382	70,351	63,181	65,548	86,213	80,697	84,689	114,446	113,084	130,833	136,950
Total Debt Service	76,150	95,875	99,584	107,018	112,249	124,528	127,804	146,477	140,319	139,091	154,953	147,221	146,609	167,270	161,451	150,594	172,488	163,800	191,281	195,370
Transfer to Risk Management Reserve	260	-	28	147	152	156	161	166	171	176	181	187	192	198	204	210	216	223	230	237
Transfer to General Reserve (Unrestricted Cash)	-	26,114	11,617	46,724	12,420	12,219	27,579	13,889	24,869	11,923	13,869	11,153	13,125	15,144	12,404	14,452	17,163	13,873	16,825	15,380
Transfer to Capital Improvement Plan (PAYGO)	145,217	120,320	154,876	105,535	147,046	148,811	130,229	140,312	140,980	164,927	155,696	178,550	188,337	175,489	197,670	218,722	204,793	231,320	213,681	226,264
Total Approriations for Debt Service and Transfers	**221,627**	**242,309**	**266,105**	**259,425**	**271,867**	**285,715**	**285,773**	**300,844**	**306,340**	**316,117**	**324,700**	**337,110**	**348,264**	**358,101**	**371,729**	**383,977**	**394,660**	**409,215**	**422,017**	**437,250**
Total Appropriations	**$ 428,490**	**$ 465,203**	**$ 500,616**	**$ 540,661**	**$ 565,522**	**$ 591,589**	**$ 619,227**	**$ 648,187**	**$ 678,552**	**$ 700,252**	**$ 722,704**	**$ 746,267**	**$ 770,546**	**$ 795,527**	**$ 821,559**	**$ 848,258**	**$ 876,105**	**$ 904,533**	**$ 934,159**	**$ 964,772**
Capital Improvement Budget Forecast																				
Beginning Capital Reserves	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sources of Funds																				
Debt funded (Revenue Bonds and Interim Financing)	-	244,345	-	-	-	-	-	-	-	-	263,686	-	-	269,147	-	-	378,904	118,680	136,319	94,086
Va Clean Water Revolving Loan Fund	83,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	-	-	-	-	-	-	-	-	-	-	-	-
WIFIA	230,000	276,066	226,582	100,000	106,284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Quality Improvement Fund (WQIF) Grants	139,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-
HRSD - Cash	145,217	120,320	154,876	105,535	147,046	148,811	130,229	140,312	140,980	164,927	155,696	178,550	188,337	175,489	197,670	218,722	204,793	231,320	213,681	226,264
Reimbursements	16,220	14,554	3,348	1,500	9,306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Line of Credit *(Negative = Paid Off)*	(33,437)	(284)	105,195	134,965	(20,636)	1,189	(20,229)	(30,312)	19,020	(4,927)	(184,265)	60,675	81,056	(141,731)	102,418	131,278	(233,696)	-	-	-
Total Capital Resources	580,000	745,000	580,000	432,000	332,000	240,000	200,000	200,000	200,000	200,000	235,118	239,226	269,393	302,905	300,088	350,000	350,000	350,000	350,000	320,351
Uses of Funds - Capital Expenditures	580,000	745,000	580,000	432,000	332,000	240,000	200,000	200,000	200,000	200,000	235,118	239,226	269,393	302,905	300,088	350,000	350,000	350,000	350,000	320,350
Ending Capital Resources	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	1
Reserves Balance Forecast																				
Total Unrestricted Cash	$ 346,882	$ 348,098	$ 394,300	$ 391,831	$ 445,913	$ 460,054	$ 469,212	$ 493,350	$ 519,059	$ 555,104	$ 559,923	$ 594,117	$ 617,221	$ 619,715	$ 654,504	$ 690,217	$ 693,668	$ 734,291	$ 733,707	$ 761,906
PAYGO (includes beginning balance, if available)	$ 145,217	$ 120,320	$ 154,876	$ 105,535	$ 147,046	$ 148,811	$ 130,229	$ 140,312	$ 140,980	$ 164,927	$ 155,696	$ 178,550	$ 188,337	$ 175,489	$ 197,670	$ 218,722	$ 204,793	$ 231,320	$ 213,681	$ 226,264
Risk Reserve	4,885	4,885	4,913	5,060	5,212	5,368	5,529	5,695	5,866	6,042	6,223	6,410	6,602	6,800	7,004	7,214	7,431	7,654	7,883	8,120
Adjusted Unrestricted Cash	**$ 196,780**	**$ 222,894**	**$ 234,511**	**$ 281,236**	**$ 293,655**	**$ 305,875**	**$ 333,454**	**$ 347,343**	**$ 372,212**	**$ 384,135**	**$ 398,004**	**$ 409,156**	**$ 422,282**	**$ 437,426**	**$ 449,830**	**$ 464,281**	**$ 481,444**	**$ 495,317**	**$ 512,142**	**$ 527,522**
Daily Cost to Operate	$ 567	$ 611	$ 642	$ 771	$ 805	$ 838	$ 914	$ 952	$ 1,020	$ 1,052	$ 1,090	$ 1,121	$ 1,157	$ 1,198	$ 1,232	$ 1,272	$ 1,319	$ 1,357	$ 1,403	$ 1,445
Adjusted Days Cash on Hand (excludes PAYGO and Risk)	347 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days	365 days
Financial Ratios Forecast																				
Total Debt Service Coverage (GAAP)	**2.47**	**2.14**	**2.25**	**1.93**	**1.91**	**2.01**	**2.01**	**1.94**	**2.05**	**2.13**	**2.00**	**2.15**	**2.19**	**1.98**	**2.14**	**2.33**	**2.08**	**2.44**	**2.16**	**2.19**
Total Debt Service Coverage (Adjusted)	**2.52**	**2.25**	**2.45**	**2.14**	**2.13**	**2.16**	**2.10**	**1.94**	**2.07**	**2.15**	**2.03**	**2.22**	**2.31**	**2.08**	**2.24**	**2.49**	**2.23**	**2.44**	**2.16**	**2.19**
CIP % Cash Funded (current year contributions)	25%	16%	27%	24%	44%	62%	65%	70%	70%	82%	66%	75%	70%	58%	66%	62%	59%	66%	61%	71%
Debt Service as a % of Total Revenues	18%	21%	20%	20%	20%	21%	21%	23%	21%	20%	21%	20%	19%	21%	20%	18%	20%	18%	20%	20%







Moody's 2022 Medians, HRSD = 10-yr forecast average

"Large" entities defined as having operating revenues over $150M.

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OPERATING BUDGET

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Operating Budget

	FY-2024	Adopted FY-2023	FY24 vs FY23 Inc/(Dec)	Percent Change
Operating Revenues				
Wastewater Treatment Charges	$ 414,801,000	$ 374,842,000	$ 39,959,000	10.7%
Miscellaneous	1,320,000	1,284,000	36,000	2.8%
Total-Operating Revenue	416,121,000	376,126,000	39,995,000	10.6%
Non-Operating Revenues				
Wastewater Facility Charges	6,095,000	7,150,000	(1,055,000)	(14.8%)
Investment Earnings	3,000,000	1,570,000	1,430,000	91.1%
Build America Bond Subsidy	1,954,000	2,026,000	(72,000)	(3.6%)
Other	1,320,000	977,000	343,000	35.1%
Total Non-Operating Revenues	12,369,000	11,723,000	646,000	5.5%
Total Revenues and Transfers	$ 428,490,000	$ 387,849,000	$ 40,641,000	10.5%
Operating Appropriations				
General Management	$ 538,146	$ 456,457	$ 81,689	17.9%
Communications	599,962	640,511	(40,549)	(6.3%)
Finance	17,365,168	15,845,731	1,519,437	9.6%
Information Services	18,642,412	17,783,194	859,218	4.8%
Talent Management	3,071,396	2,614,742	456,654	17.5%
Operations	134,935,571	117,539,113	17,396,458	14.8%
Engineering	9,206,395	8,116,929	1,089,466	13.4%
Water Quality	18,299,074	16,577,131	1,721,943	10.4%
General Expenses	4,204,506	9,069,227	(4,864,721)	(53.6%)
Total Operating Appropriations	206,862,630	188,643,034	18,219,596	9.7%
Appropriations for Debt Service and Transfers				
Debt Service	76,150,000	69,533,000	6,617,000	9.5%
Transfer to CIP	145,217,370	129,412,966	15,804,404	12.2%
Transfer to Risk Management Reserve	260,000	260,000	-	0.0%
Total Appropriations for Debt Service and Transfers	221,627,370	199,205,966	22,421,404	11.3%
Total Appropriations	$ 428,490,000	$ 387,849,000	$ 40,641,000	10.5%

Operating Budget Summary

	General Management	Communications	Finance	Information Technology	Talent Management	Operations	Engineering
Personal Services	$ 373,137	$ 401,623	$ 7,821,681	$ 6,506,396	$ 1,942,297	$ 42,081,052	$ 5,772,963
Fringe Benefits	92,009	135,039	3,104,592	2,085,746	691,649	16,941,679	1,963,395
Materials & Supplies	10,000	9,500	102,784	1,634,800	79,000	10,964,593	34,450
Transportation	12,500	14,500	23,650	22,700	15,000	1,837,623	26,179
Utilities	-	-	282,000	1,421,000	-	14,466,011	-
Chemical Purchases	-	-	-	-	-	17,093,255	-
Contractual Services	20,000	35,500	5,722,389	5,785,270	23,500	19,875,161	1,182,000
Major Repairs	-	-	-	823,000	-	9,487,624	-
Capital Assets	-	-	-	-	-	1,064,500	-
Miscellaneous Expense	30,500	3,800	308,072	363,500	319,950	1,124,073	227,408
Operating Approporiations	**$ 538,146**	**$ 599,962**	**$ 17,365,168**	**$ 18,642,412**	**$ 3,071,396**	**$ 134,935,571**	**$ 9,206,395**

Full-time Positions:

Current	2	4	103	54	18	524	53
Changes	-	-	6	6	3	9	1
Budgeted	2	4	109	60	21	533	54

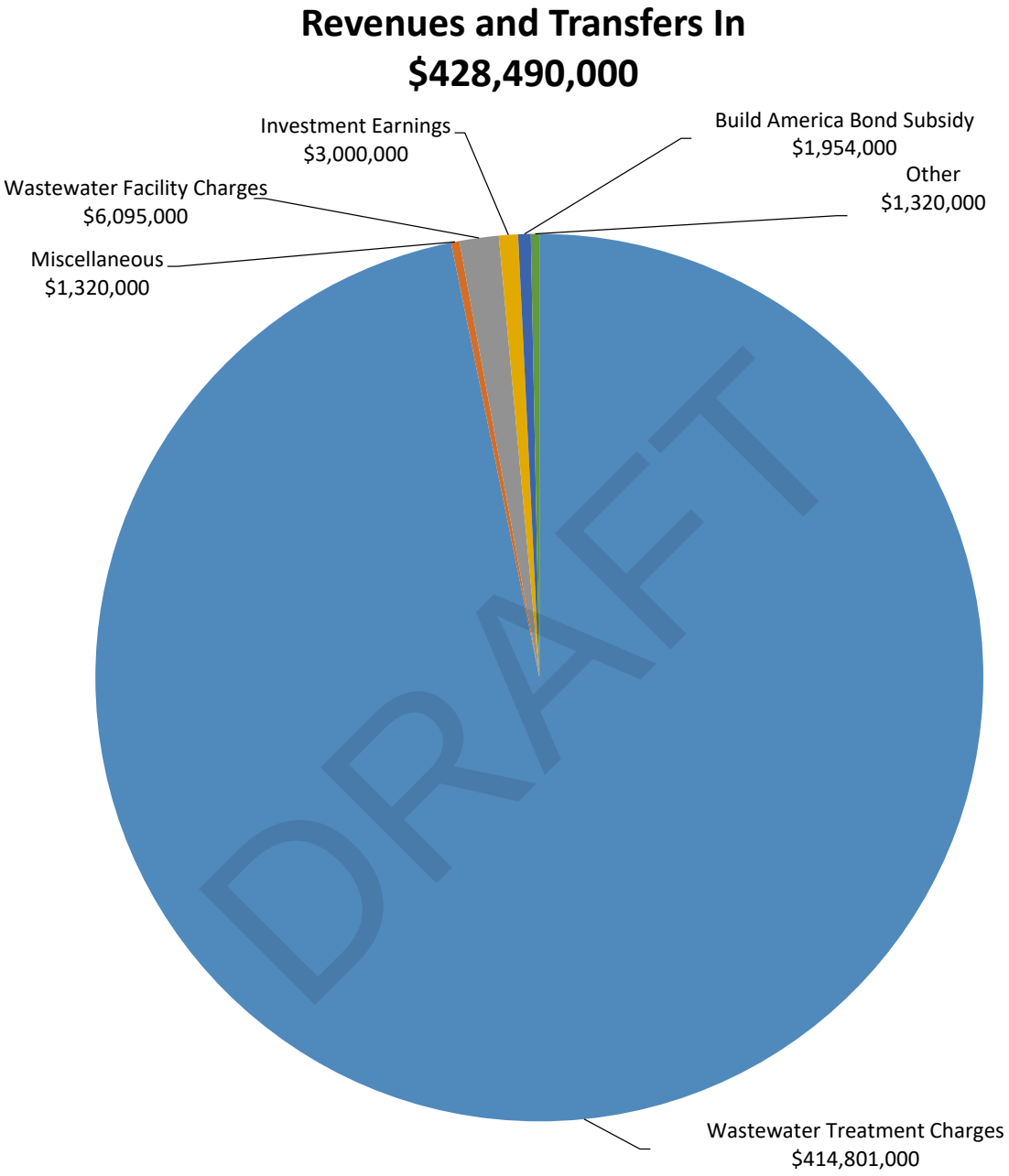
Operating Budget Summary

	Water Quality	General Expenses	FY-2024	Percent of Budget	FY-2023	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 9,789,769	$ (4,238,725)	$ 70,450,193	16.4%	$ 63,288,297	$ 7,161,896	11.3%
Fringe Benefits	3,821,385	(349,774)	28,485,720	6.6%	26,513,570	1,972,150	7.4%
Materials & Supplies	1,907,000	26,000	14,768,127	3.4%	12,309,985	2,458,142	20.0%
Transportation	40,862	-	1,993,014	0.5%	1,790,611	202,403	11.3%
Utilities	2,808	577,200	16,749,019	3.9%	14,948,819	1,800,200	12.0%
Chemical Purchases	-	-	17,093,255	4.0%	12,472,034	4,621,221	37.1%
Contractual Services	2,078,000	7,298,155	42,019,975	9.8%	44,891,488	(2,871,513)	(6.4%)
Major Repairs	43,400	-	10,354,024	2.4%	8,497,970	1,856,054	21.8%
Capital Assets	-	-	1,064,500	0.2%	447,684	616,816	137.8%
Miscellaneous Expense	615,850	891,650	3,884,803	0.9%	3,482,576	402,227	11.5%
Operating Approporiations	**$ 18,299,074**	**$ 4,204,506**	206,862,630	48.3%	188,643,034	18,219,596	9.7%
Debt Service Costs			76,150,000	17.8%	69,533,000	6,617,000	9.5%
Transfer to CIP			145,217,370	33.9%	129,412,966	15,804,404	12.2%
Transfer to Risk Management			260,000	0.1%	260,000	-	0.0%
Appropriations for Debt Service and Transfers			221,627,370	51.7%	199,205,966	22,421,404	11.3%
			$ 428,490,000	100.0%	**$ 387,849,000**	$ 40,641,000	10.5%

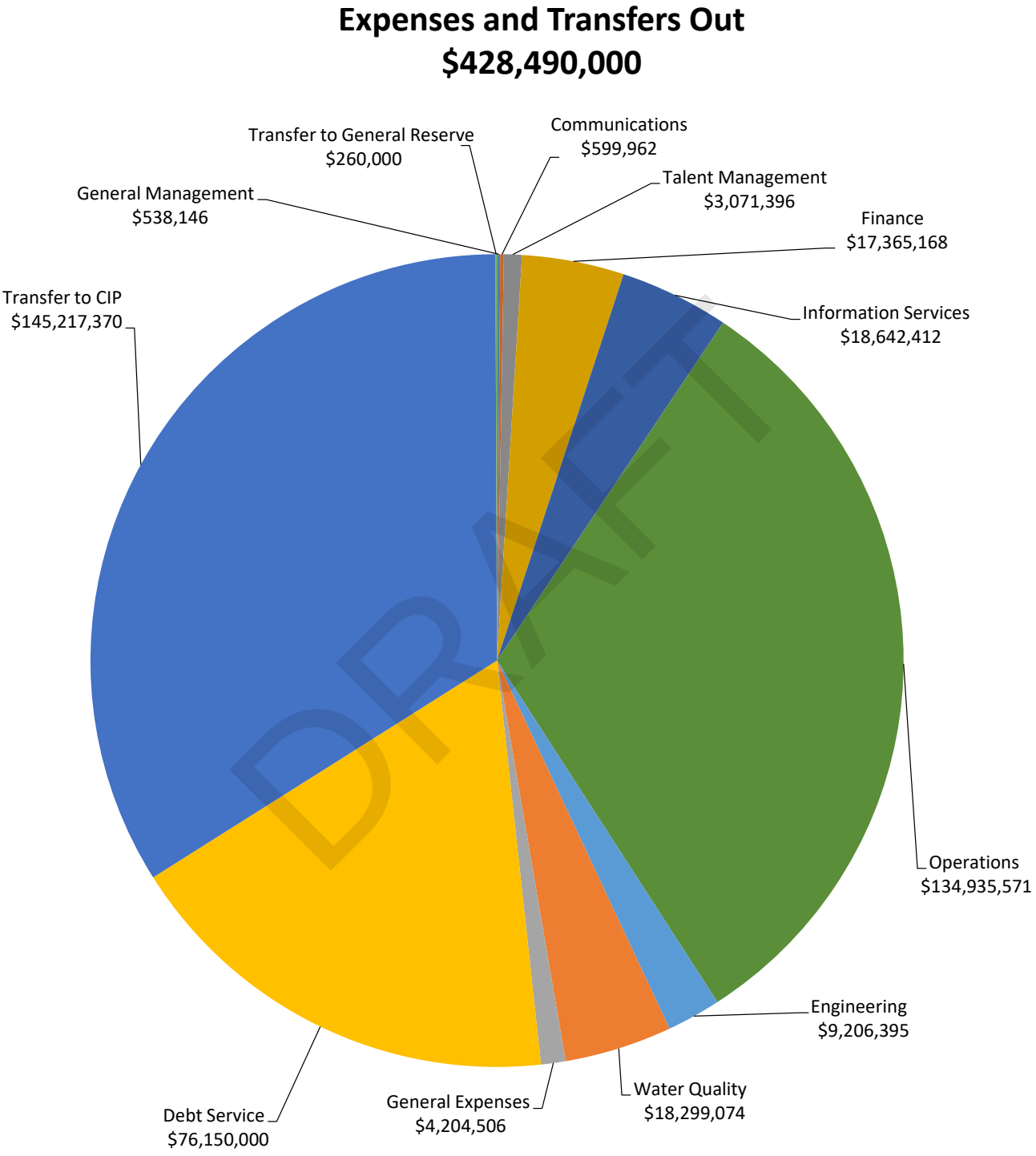
Full-time Positions:

Current	120	878
Changes	2	27
Budgeted	122	905

Operating Budget Charts



Operating Budget Charts



General Management

The General Manager supervises the department directors and the Commission Secretary. The Commission Secretary provides administrative support to the General Manager as well as the HRSD Commission.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 373,137	$ 304,693	$ 68,444	22.5%
Fringe Benefits	92,009	79,264	12,745	16.1%
Material & Supplies	10,000	10,000	-	0.0%
Transportation	12,500	12,000	500	4.2%
Contractual Services	20,000	20,000	-	0.0%
Miscellaneous	30,500	30,500	-	0.0%
Total	**$ 538,146**	**$ 456,457**	**$ 81,689**	**17.9%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
General Manager		1		1		1
Commission Secretary	7	1		1		1
Total		**2**	**-**	**2**	**-**	**2**

Communications

The Communications Department supports HRSD's mission and vision through public outreach, community engagement, educational programming and environmental and locality partnerships. The department manages communications strategy, internal and external communications, media relations and branding through numerous channels and resources - including publications, traditional media, social media and web, graphic design, speaking engagements, tours and special events.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 401,623	$ 360,261	$ 41,362	11.5%
Fringe Benefits	135,039	122,250	12,789	10.5%
Material & Supplies	9,500	45,000	(35,500)	(78.9%)
Transportation	14,500	8,500	6,000	70.6%
Contractual Services	35,500	95,000	(59,500)	(62.6%)
Miscellaneous	3,800	9,500	(5,700)	(60.0%)
Total	**$ 599,962**	**$ 640,511**	**$ (40,549)**	**(6.3%)**

Positions

	Grade	Adopted FY-23	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Communications	12	1		1		1
Public Information Specialist	6	2		2		2
Community Education and Outreach Specialist	6	1		1		1
Total		**4**	**-**	**4**	**-**	**4**

Finance

The Finance Department is responsible for HRSD's general financial and business functions, including financial reporting, investment portfolio, debt and risk management and customer billing. The Accounting Division handles fiscal affairs such as preparing statements, budgets, management reports and payroll. The Capital Finance Division is responsible for planning and financing the Capital Improvement Program, debt management and compliance, and is the functional lead for the Enterprise Resource Process system. The Customer Care Center Division handles billing, payments, collections, maintenance of customer accounts and liaison with HRSD's customers. The Procurement Division is responsible for purchasing, renting, leasing or otherwise acquiring goods, professional and non-professional services, and certain construction services, managing supplier relationships and disposing of surplus property.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 7,821,681	$ 6,545,190	$ 1,276,491	19.5%
Fringe Benefits	3,104,592	2,573,254	531,338	20.6%
Material & Supplies	102,784	104,205	(1,421)	(1.4%)
Transportation	23,650	7,650	16,000	209.2%
Utilities	282,000	312,000	(30,000)	(9.6%)
Contractual Services	5,722,389	6,047,609	(325,220)	(5.4%)
Miscellaneous	308,072	255,823	52,249	20.4%
Total	**$ 17,365,168**	**$ 15,845,731**	**$ 1,519,437**	**9.6%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
Deputy General Manager/CFO		-	1	1		1
Director of Finance and Treasurer	12	1	(1)	-		-
Chief of Accounting & Finance	11	1		1		1
Chief of Capital Finance	11	1		1		1
Chief of Compliance & Risk	11	1		1		1
Chief of Customer Care Center	11	1		1		1
Chief of Procurement	11	1		1		1
Business Process Engineer	10	1		1		1
Accounting Manager	9	3		3		3
Customer Technology Manager	9	2		2		2
Customer Care Manager	9	3		3		3
Business Analyst	8	4		4		4
Financial Analyst	8	2		2		2
Grant Analyst	8	1		1		1
Procurement Analyst	8	2		2		2
Accounts Payable Supervisor	7	1		1		1
Customer Care Supervisor	7	4		4		4
Delinquency Management Analyst	7	1		1		1
Project Management System Information Analyst	7	1		1		1
Technical Analyst	7	-		-	1	1
Accounts Receivable Specialist	6	2		2		2
Payroll Specialist	6	1		1	1	2
ProCard & Contract Administrator	6	1		1		1
Procurement Specialist	6	5		5		5
Quality Call Monitor	6	-		-	1	1
Accounting Coordinator	4	1		1		1
Accounts Payable Coordinator	4	3		3		3
Accounts Receivable Technician	4	3		3		3
Administrative Coordinator	4	-	1	1		1
Customer Care Administrative Coordinator	4	1		1		1
Customer Care Coordinator	4	4		4	1	5
Procurement Coordinator	4	1		1		1
Technical Coordinator	4	-		-	2	2
Account Investigator	3	10	(1)	9		9
Customer Care Account Representative	3	36		36		36
Procurement Administrative Assistant	3	2		2		2
Mail Processing Clerk	2	2		2		2
Total		**103**	**-**	**103**	**6**	**109**

Information Technology

The Information Technology (IT) Department is responsible for HRSD's computer systems, communication systems, network infrastructure, cellular communications, cyber security, and data management functions. Staff also provides guidance and assistance in the identification and implementation of new technologies, enhancing both organizational efficiency and efficacy. The Cybersecurity Division is responsible for ensuring the confidentiality, integrity, and availability of all HRSD infrastructure, information systems and business data from malicious threats. The Enterprise Data Services Division is responsible for application integration and support, data management, and systems analysis and support. The Information Technology Operations Division supports departments in achieving their goals and objectives, providing the requisite hardware, software, storage, and network connectivity, to meet business and operational requirements.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 6,506,396	$ 5,463,613	$ 1,042,783	19.1%
Fringe Benefits	2,085,746	1,778,021	307,725	17.3%
Material & Supplies	1,634,800	1,458,100	176,700	12.1%
Transportation	22,700	38,700	(16,000)	(41.3%)
Utilities	1,421,000	1,300,000	121,000	9.3%
Contractual Services	5,785,270	6,124,260	(338,990)	(5.5%)
Major Repairs	823,000	1,247,000	(424,000)	(34.0%)
Miscellaneous	363,500	373,500	(10,000)	(2.7%)
Total	**$ 18,642,412**	**$ 17,783,194**	**$ 859,218**	**4.8%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Information Technology	12	1		1		1
Chief Information Security Officer	11	1		1		1
Chief of Enterprise Data Services	11	1		1		1
Chief of IT Operations and Support	11	1		1		1
Chief of Technology and Innovation	11	-		-	1	1
Cybersecurity Solutions Architect	9	-		-	1	1
Database Administrator	9	3		3		3
Enterprise Architect	9	3		3		3
IT Systems Security Manager	9	1		1		1
Oracle Developer	9	2		2	1	3
Programming Development Manager	9	1		1		1
Senior Systems Engineer	9	7		7	1	8
Systems Analysis Manager	9	1		1		1
Cybersecurity Analyst	8	1		1	1	2
Senior Programmer Analyst	8	8		8		8
Senior Systems Analyst	8	5		5		5
SharePoint Web Developer	8	1		1		1
Linux Systems Administrator	8	2	1	3		3
Unix System Administrator	8	1	(1)	-		-
IT HelpDesk Supervisor	7	1		1		1
Desktop Support Analyst	6	6	1	7		7
Systems Analyst	6	1		1		1
Web Portal Programmer	6	1		1	1	2
Telecommunications Coordinator	5	1	(1)	-		-
IT Administrative Coordinator	4	1		1		1
Computer Operator	3	3		3		3
Total		**54**	**-**	**54**	**6**	**60**

Talent Management

The Talent Management Department attracts, develops, and retains a talented diverse workforce and ensures employee safety. The Human Resources Division is responsible for recruitment and outreach, new employee onboarding, benefits administration, compensation and classification, employee relations, HRSD's wellness program, workers' compensation, employee records, retirement, and HR policies. The Organizational Development and Training (ODT) Division oversees HRSD's Apprenticeship Program and is dedicated to developing and supporting HRSD's strategic plan and key initiatives to promote training, education, and experiential experiences. The Safety Division is responsible for Occupational Safety & Health Compliance, safety programs, employee safety training, safety records, industrial hygiene monitoring, occupational health screening, safety audits, accident investigations, compliance reporting, and risk management support.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 1,942,297	$ 1,713,691	$ 228,606	13.3%
Fringe Benefits	691,649	585,149	106,500	18.2%
Material & Supplies	79,000	68,000	11,000	16.2%
Transportation	15,000	22,600	(7,600)	(33.6%)
Contractual Services	23,500	22,000	1,500	6.8%
Miscellaneous	319,950	203,302	116,648	57.4%
Total	**$ 3,071,396**	**$ 2,614,742**	**$ 456,654**	**17.5%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Talent Management	12	1		1		1
Chief of Human Resources	11	1		1		1
ODT Manager	10	1		1		1
Safety Manager	9	1		1		1
Human Resources Business Analyst	8	1		1		1
Human Resources Business Partner	8	3	(1)	2		2
Industrial Hygienist	8	2	(2)	-		-
Occupational Health & Saftey Professional	8	-	3	3		3
Training Superintendent	8	1		1		1
Talent Acquisition Specialist	7	1	1	2		2
ODT Math Instructor	7	-		-	1	1
ODT Resource Specialist	7	1		1		1
Safety Specialist	7	-	1	1		1
Workforce Development Specialist	7	-		-	1	1
Safety Technician	5	2	(2)	-		-
Human Resources Coordinator	4	2		2	1	3
Organizational Development & Training Coordinator	4	1		1		1
Total		**18**	**-**	**18**	**3**	**21**

Operations

The Operations Department is responsible for operating and maintaining HRSD's treatment plants, pump stations, pipelines, buildings and equipment. HRSD provides wastewater treatment services for over 1.7 million people in 20 cities, counties and towns. The department also includes the Division of Water Technology and Research whose primary purpose is to research new technologies with a focus on rapid deployment of innovative solutions and water quality. Services are delivered through 9 divisions. There are three major treatment plant divisions. Services to small communities that are in the HRSD service area are provided by the Small Communities Division (SCD). The SCD operates four smaller treatment plants and the associated sewer collection systems for four counties on the Middle Peninsula and the Town of West Point. The SCD also includes the operation of two treatment plants and the associated sewer collection systems in the County of Surry. Finally, the SCD operates two treatment plants and the associated sewer collection services for the Towns of Nassawadox and Onancock on the Eastern Shore of Virginia. The Electrical and Instrumentation Division supports the electrical and instrumentation maintenance and construction needs of all HRSD facilities as well as programming industrial controls and automation at HRSD facilities. The two Interceptor Divisions operate and maintain over 500 miles of interceptor pipelines and over 100 pump stations ensuring wastewater is conveyed to each treatment plant. The Support Systems Division is responsible for the maintenance of the HRSD fleet, all buildings, operation of two carpentry shops, a full-service machine shop and managing an infrastructure assessment team. The department is also responsible for energy management and research to find innovative, cost-effective ways of managing our energy consumption more effectively.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 42,081,052	$ 36,510,683	$ 5,570,369	15.3%
Fringe Benefits	16,941,679	15,007,975	1,933,704	12.9%
Material & Supplies	10,964,593	8,805,130	2,159,463	24.5%
Transportation	1,837,623	1,658,041	179,582	10.8%
Utilities	14,466,011	12,809,119	1,656,892	12.9%
Chemical Purchases	17,093,255	12,472,034	4,621,221	37.1%
Contractual Services	19,875,161	21,662,969	(1,787,808)	(8.3%)
Major Repairs	9,487,624	7,174,970	2,312,654	32.2%
Capital Assets	1,064,500	447,684	616,816	137.8%
Miscellaneous	1,124,073	990,508	133,565	13.5%
Total	**$ 134,935,571**	**$ 117,539,113**	**$ 17,396,458**	**14.8%**

Positions

	Grade	Adopted FY-23	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Operations	12	1		1		1
Director of Water Technology and Research	12	1		1		1
Chief of Electrical & Instrumentation Division	11	1		1		1
Chief of Interceptor Operations North Shore	11	1		1		1
Chief of Interceptor Operations South Shore	11	1		1		1
Chief of Process Engineering & Research	11	1		1		1
Chief of Resource Recovery	11	-	1	1		1
Chief of Treatment	11	3		3		3
Energy Manager	11	1	(1)	-		-
Treatment Process Engineer	10	6		6		6
Electrical Manager	9	2		2		2
Industrial Automation Manager	9	1		1		1
Instrumentation Manager	9	2		2		2
Interceptor Engineer	9	2		2		2
Project Manager	9	1		1		1
Support Systems Manager	9	1		1		1
SWIFT Project Manager	9	1		1		1
Systems Manager	9	2		2		2
Automotive Superintendent	8	1		1		1
Coating, Concrete and Roofing Superintendent	8	1		1		1
Condition Assessment Superintendent	8	1		1		1
Construction Superintendent	8	1		1		1
Electrical & Instrumentation Process Technologist	8	6		6		6
Facility Superintendent	8	2		2		2
Industrial Automation Programmer	8	7		7		7
Interceptor Superintendent	8	2		2		2
Plant Superintendent	8	17		17		17
Chief Foreman	7	2		2		2
Chief Maintenance Management	7	2		2		2
Chief Systems Operator	7	2		2		2

Operations (Continued)

	Grade	Adopted FY-23	Adjustments	Final FY-2023	Adjustments	FY-2024
Electrical & Instrumentation Process Specialist	7	1		1		1
Electrical & Instrumentation Specialist	7	64	(1)	63		63
Interceptor Specialist	7	2		2		2
Lead Operator	7	33	1	34	2	36
Operations Support Specialist	7	1		1		1
Automotive Foreman	6	2		2		2
Coatings Inspector	6	2		2		2
Condition Assessment Supervisor	6	1		1		1
Interceptor Foreman	6	6		6		6
Interceptor Inspector	6	2		2		2
Interceptor Systems Supervisor	6	2		2		2
Machinist Foreman	6	1		1		1
Maintenance Planner	6	9		9		9
Pump Station Supervisor	6	2		2		2
Automotive Technician	5	5		5	1	6
Carpenter	5	2		2		2
Equipment Technician	5	3	(1)	2		2
Facility Maintenance Technician	5	2		2		2
Interceptor Technician	5	29	1	30		30
Machinist	5	2		2		2
Maintenance Operator	5	72		72	1	73
Plant Operator	5	76	1	77	(3)	74
Automotive Coordinator	4	1		1		1
Biosolids Driver/Operator	4	-		-	7	7
Heavy Equipment Operator 1	4	21		21		21
Materials Operations Coordinator	4	2		2		2
Operations Admin Coordinator	4	1		1		1
Operations Coordinator	4	2		2		2
Plant Administrative Assistant	3	8		8		8
SCADA Administrative Assistant	3	1		1		1
Interceptor Assistant	2	28		28		28
Maintenance Operations Assistant	2	37	(3)	34	(1)	33
Facility Assistant	1	1		1		1
Custodian	1	4		4		4
Subtotal Operations		**497**	**(2)**	**495**	**7**	**502**
Small Communities						
Chief of Small Communities	11	-	1	1		1
Systems Manager	9	1		1		1
Systems Superintendent	8	2		2		2
Systems Chief Foreman	7	1		1		1
Systems Lead Operator	7	3		3		3
Maintenance Planner	6	-	1	1		1
Systems Foreman	6	2		2		2
Maintenance Operator	5	-		-	1	1
Systems Operator	5	12		12	2	14
Administrative Coordinator	4	1		1		1
Heavy Equipment Operator 1	4	1		1		1
Maintenance Operations Assistant	2	3	(1)	2		2
SCD Lab Assistant	2	1		1		1
Subtotal Small Communities		**27**	**1**	**28**	**3**	**31**
Total		**524**	**(1)**	**523**	**10**	**533**

Engineering

The Engineering Department is responsible for facility planning, design and construction and related support. The Asset Management Division is responsible for the Computerized Maintenance Management System (CMMS), Condition Assessment, and Emergency Management procedures to extend the life of assets at the lowest life cycle cost. The Design and Construction Divisions deliver capital projects in a manner consistent with HRSD's quality standards. The Planning and Analysis Division manages numerous diverse functions including Hydraulic Modeling, Geographic Information System (GIS), Data Analysis and Records Management System and plans the capital infrastructure required to meet the region's future wastewater needs. The department is also responsible for all property and land acquisition to meet the needs of HRSD.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 5,772,963	$ 5,109,945	$ 663,018	13.0%
Fringe Benefits	1,963,395	1,782,671	180,724	10.1%
Material & Supplies	34,450	25,050	9,400	37.5%
Transportation	26,179	15,420	10,759	69.8%
Contractual Services	1,182,000	998,200	183,800	18.4%
Miscellaneous	227,408	185,643	41,765	22.5%
Total	**$ 9,206,395**	**$ 8,116,929**	**$ 1,089,466**	**13.4%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Engineering	12	1		1		1
Chief of Asset Management	11	1		1		1
Chief of Design & Construction	11	2		2		2
Chief of Design & Construction - Special Projects	11	1		1		1
Chief of Design & Construction - SWIFT	11	1		1		1
Chief of Planning & Analysis	11	1		1		1
Condition Assessment Manager	9	2		2		2
Data Analysis Manager	9	1		1		1
Enterprise Data Scientist	9	1		1		1
GIS Manager	9	1		1		1
Hydraulic Analysis Manager	9	5		5		5
Project Manager	9	13		13		13
Real Estate Manager	8	3		3		3
Senior Data Analyst	8	-	4	4		4
Condition Assessment Analyst	7	1		1	1	2
CMMS Analyst	7	2		2		2
Data Analyst	7	6	(4)	2		2
GIS Analyst	7	2		2		2
Planning Engineer	7	1		1		1
Contract Specialist	6	4		4		4
GIS CAD Technician	5	2		2		2
Administrative Coordinator	4	1		1		1
Engineering Clerk	2	1		1		1
Total		**53**	**-**	**53**	**1**	**54**

Water Quality

The Water Quality (WQ) Department's mission is to provide quality environmental services to support HRSD and its partners. This department helps ensure compliance with HRSD environmental permits and leads regulatory advocacy through the work of three divisions. The Central Environmental Laboratory (CEL) Division uses the Environmental Data Management System (EDMS) and other tools to provide analytical support for numerous monitoring, research and regulatory purposes. The Pretreatment and Pollution Prevention (P3) Division monitors wastewater conveyed to treatment plants using the Pretreatment Information Management System (PIMS) and other tools, and implements its Industrial Wastewater Discharge Regulations to protect treatment plant staff, facilities and processes. The Technical Services Division (TSD) is responsible for activities including environmental monitoring, specialized sampling, treatment process and research studies, the Municipal Assistance Program (MAP) to assist localities, as well as all reporting required by HRSD permits.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ 9,789,769	$ 8,740,031	$ 1,049,738	12.0%
Fringe Benefits	3,821,385	3,448,350	373,035	10.8%
Material & Supplies	1,907,000	1,768,500	138,500	7.8%
Transportation	40,862	27,700	13,162	47.5%
Utilities	2,808	2,700	108	4.0%
Contractual Services	2,078,000	1,889,500	188,500	10.0%
Major Repairs	43,400	76,000	(32,600)	(42.9%)
Miscellaneous	615,850	624,350	(8,500)	(1.4%)
Total	**$ 18,299,074**	**$ 16,577,131**	**$ 1,721,943**	**10.4%**

Positions

	Grade	Adopted FY-2023	Adjustments	Final FY-2023	Adjustments	FY-2024
Director of Water Quality	12	1		1		1
Chief of Lab	11	1		1		1
Chief of P3	11	1		1		1
Chief of TSD	11	1		1		1
TSD Hydrologist	10	1		1		1
Environmental Scientist	9	7		7		7
Lab Manager	9	4		4		4
Lab Systems Manager	9	-	1	1		1
Lab Quality Assurance Manager	9	1		1		1
LIMS Optimization Manager	9	1	(1)	-		-
P3 Manager	9	4		4		4
WQ/Ops Quality Assurance Manager	9	1		1		1
Lab EDMS Administrator	8	1		1		1
Lab Operations Manager	8	1	(1)	-		-
Lab Supervising Chemist	8	13		13	(2)	11
P3 PIMS Administrator	8	-	1	1		1
P3 Supervising Specialist	8	3		3		3
TSD Operations Manager	8	1		1		1
TSD Supervising Molecular Biologist	8	-		-	2	2
TSD Supervising Specialist	8	3	1	4		4
P3 Administrative Supervising Specialist	7	1		1		1
P3 PIMS Analyst	7	1	(1)	-		-
TSD Specialist	7	13	(1)	12	1	13
Lab EDMS Analyst	6	1		1		1
Lab Quality Assurance Specialist	6	1		1		1
Lab Specialist	6	14		14	1	15
P3 PIMS Analyst	6	-	1	1		1
P3 Specialist	6	5		5		5
WQ/Ops Quality Assurance Specialist	6	1		1		1
Lab Data Technician	5	1		1		1
Lab Technician	5	5		5		5
P3 Administrative Technician	5	1		1		1
P3 Technician	5	10		10		10
TSD Technician	5	8		8		8
CEL Operations Coordinator	4	1		1		1
Lab Assistant	4	7		7	1	8
Lab Data Coordinator	4	1		1		1
TSD Assistant	4	-	1	1		1
TSD Administrative Coordinator	4	1		1		1
P3 Administrative Assistant	3	2	(1)	1		1
TSD Assistant	2	1	(1)	-		-
Total		**120**	**(1)**	**119**	**3**	**122**

General Expenses, Debt Service and Transfers

General Expenses includes operating expenditures not assigned to any specific HRSD Department. Debt Service includes payments on bonds issued by HRSD and through the Virginia Clean Water Revolving Loan Fund (VCWRLF). Transfers are made to fund the Capital Improvement Program (CIP) and the Risk Management reserve. The costs incurred to issue bonds are included in General Expenses - Miscellaneous.

Expenditure Budget

	FY-2024 Budget	FY-2023 Budget	FY24 vs FY23 Inc/(Dec)	Percent Change
Personal Services	$ (4,238,725)	$ (1,459,809)	$ (2,778,916)	190.4%
Fringe Benefits	(349,774)	1,136,636	(1,486,410)	(130.8%)
Material & Supplies	26,000	26,000	-	0.0%
Utilities	577,200	525,000	52,200	9.9%
Contractual Services	7,298,155	8,031,950	(733,795)	(9.1%)
Miscellaneous	891,650	809,450	82,200	10.2%
Total General Expenses	**$ 4,204,506**	**$ 9,069,227**	**$ (4,864,721)**	**(53.6%)**
Publically Sold Bonds - Principal	24,650,000	23,630,000	1,020,000	4.3%
Publically Sold Bonds - Interest	25,025,000	24,553,000	472,000	1.9%
VRLF Bonds	26,475,000	21,350,000	5,125,000	24.0%
Subtotal Debt Service	76,150,000	69,533,000	6,617,000	9.5%
Transfer to CIP	145,217,370	129,412,966	15,804,403	12.2%
Transfer to Risk Management	260,000	260,000	-	0.0%
Subtotal Transfers	145,477,370	129,672,966	15,804,403	12.2%
Total Debt Service and Transfers	**$ 221,627,370**	**$ 199,205,966**	**$ 22,421,403**	**11.3%**

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CAPITAL BUDGET

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Capital Budget

HRSD prepares a Capital Improvement Program (CIP) each year for the capital projects currently underway or proposed for the future. The first year of the CIP is authorized as the Capital Budget for FY-2024 in the amount of $580 million. The remaining years (FY-2025 to FY-2033) include all known projects planned for these years; however, approval of the plan does not authorize the Capital Budgets for those years. Each year's Capital Budget will be approved during the budget process for the specific year.

The ten-year Capital Improvement Program for FY-2024 to FY-2033 highlights the anticipated cost of each project and the fiscal year(s) in which the work is expected to occur. All costs listed in the CIP are stated in current year dollars and total approximately $3.9 billion.

The bond component of the plan may include one or all of the following:

- Interim or construction financings
- Federally subsidized borrowing programs administered by the Virginia Resource Authority and the Environmental Protection Agency
- HRSD Revenue Bonds or Notes

The grant component represents funds estimated to be received from a federal or state agency for specific projects. Other reimbursements, if any, include amounts paid by other parties who may participate in a project.

Capital Budget

CIP Budget Forecast (in thousands)	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
Beginning Capital Reserves	$ -	$ -	$ -	$ -	$ -	$ -
Bonds	244,345	-	244,345	-	-	-
VCWRLF	433,000	83,000	50,000	50,000	50,000	50,000
WIFIA	938,931	230,000	276,066	226,582	100,000	106,284
WQIF	499,000	139,000	40,000	40,000	40,000	40,000
Grants and Other Reimbursements	44,927	16,220	14,554	3,348	1,500	9,306
Cash	1,398,253	145,217	120,320	154,876	105,535	147,046
Transfer from Line of Credit	150,544	(33,437)	(284)	105,195	134,965	(20,636)
Total Capital Resources	3,709,000	580,000	745,000	580,000	432,000	332,000
Capital Expenditures	3,709,000	580,000	745,000	580,000	432,000	332,000
Ending Capital Reserves	$ -	$ -	$ -	$ -	$ -	$ -

Capital Expenditures (in thousands)	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
Administration	$ 86,998	$ 8,120	$ 13,321	$ 20,676	$ 19,676	$ 10,121
Army Base	22,857	3,758	4,508	1,770	30	6,376
Atlantic	223,545	29,955	38,350	46,874	59,516	18,378
Boat Harbor	476,535	140,366	171,769	76,945	36,576	50,879
Chesapeake-Elizabeth	20,663	7,908	5,829	1,824	3,401	1,701
Eastern Shore	42,759	25,895	12,215	4,649	-	-
James River	281,286	91,870	73,057	67,616	25,608	4,645
Middle Peninsula	93,370	38,407	47,459	7,475	29	-
Nansemond	464,751	176,643	179,151	53,331	25,606	6,780
Surry	5,460	5,460	-	-	-	-
Virginia Initiative Plant	205,407	55,557	66,894	31,930	4,594	13,245
Williamsburg	86,379	3,840	8,092	9,391	4,479	-
York River	83,106	30,685	24,157	7,123	13,557	7,580
General	1,431,898	106,537	139,409	180,922	261,665	229,769
Future Improvements	338,934	-	-	-	-	-
Subtotal	3,863,947	725,000	784,211	510,526	454,737	349,474
Program Spend Rate		80%	95%	114%	95%	95%
Total Expenditures	$ 3,863,947	$ 580,000	$ 745,000	$ 580,000	$ 432,000	$ 332,000

These abbreviations are used throughout the CIP budget:

BH - Boat Harbor Treatment Plant
CHES - City of Chesapeake
DEMON - Deamonification
HII-NNS - Huntington Ingalls Industries - Newport News Shipping
HPP - High Point Project
IFM - Interceptor Force Main
MAR - Managed Aquifer Recharge
MHI - Multiple Health Incinerator
MIFAS - Moving Media Integrated Fixed-Film Activated Sludge
PORTS - City of Portsmouth
PRS - Pressure Reducing Station
PS - Pump Station
SCADA - Supervisor Control and Data Acquisition
SF - Storage Facility
SWIFT - Sustainable Water Initiative for Tomorrow
VDOT - Virginia Department of Transportation
VIP - Virginia Initiative Plant

Capital Budget

CIP Budget Forecast

(in thousands)	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
Beginning Capital Reserves	$ -	$ -	$ -	$ -	$ -
Bonds	-	-	-	-	-
VCWRLF	50,000	50,000	50,000	-	-
WIFIA	-	-	-	-	-
WQIF	40,000	40,000	40,000	40,000	40,000
Grants and Other Reimbursements	-	-	-	-	-
Cash	148,811	130,229	140,312	140,980	164,927
Transfer from Line of Credit	1,189	(20,229)	(30,312)	19,020	(4,927)
Total Capital Resources	240,000	200,000	200,000	200,000	200,000
Capital Expenditures	240,000	200,000	200,000	200,000	200,000
Ending Capital Reserves	$ -	$ -	$ -	$ -	$ -

Capital Expenditures

(in thousands)	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
Administration	$ 3,852	$ 3,852	$ 3,852	$ 3,531	$ -
Army Base	6,376	40	-	-	-
Atlantic	19	-	3,381	3,535	23,536
Boat Harbor	-	-	-	-	-
Chesapeake-Elizabeth	-	-	-	-	-
Eastern Shore	-	-	-	-	-
James River	16,729	-	-	-	1,761
Middle Peninsula	-	-	-	-	-
Nansemond	11,629	11,582	29	-	-
Surry	-	-	-	-	-
Virginia Initiative Plant	15,647	10,742	3,600	1,569	1,630
Williamsburg	-	-	6,726	7,990	45,860
York River	3	-	-	-	-
General	185,715	120,916	145,536	58,265	3,163
Future Improvements	30	52,868	36,876	125,110	124,050
Subtotal	240,000	200,000	200,000	200,000	200,000
Program Spend Rate	100%	100%	100%	100%	100%
Total Expenditures	$ 240,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
Administration							
AD012500	Cybersecurity Practice & Procedure Initiative	$ 10,900	$ 2,200	$ 2,200	$ 3,000	$ 2,000	$ 1,500
AD012600	Central Environmental Laboratory Expansion and Rehabilitation	$ 42,106	$ 2,420	$ 7,269	$ 13,824	$ 13,824	$ 4,769
AD012700	Capital Improvement Program Labor Program	$ 30,492	$ -	$ 3,852	$ 3,852	$ 3,852	$ 3,852
AD012720	Capital Improvement Program Internal Labor FY24	$ 3,500	$ 3,500	$ -	$ -	$ -	$ -
	Subtotal	$ 86,998	$ 8,120	$ 13,321	$ 20,676	$ 19,676	$ 10,121
Army Base							
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	$ 12,822	$ -	$ -	$ -	$ 30	$ 6,376
AB010500	Section W Force Main Replacement	$ 2,452	$ 1,330	$ 1,118	$ 5	$ -	$ -
AB011900	Army Base Treatment Plant Administration Building Renovation (2021)	$ 3,574	$ 1,802	$ 1,772	$ -	$ -	$ -
AB012100	Army Base Treatment Plant Generator Control Replacement	$ 4,009	$ 626	$ 1,618	$ 1,765	$ -	$ -
	Subtotal	$ 22,857	$ 3,758	$ 4,508	$ 1,770	$ 30	$ 6,376
Atlantic							
AT011520	Shipps Corner Pressure Reducing Station Modifications	$ 1,381	$ 185	$ 1,196	$ -	$ -	$ -
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	$ 10,412	$ 5,189	$ 5,223	$ -	$ -	$ -
AT012920	Atlantic Treatment Plant Access Road Extension	$ 10,603	$ 976	$ 1,855	$ 4,909	$ 2,864	$ -
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	$ 8,408	$ 4,033	$ 4,033	$ 342	$ -	$ -
AT013010	Washington District Pump Station Replacement	$ 9,218	$ 3,033	$ 4,941	$ 1,244	$ -	$ -
AT013110	South Norfolk Area Gravity Sewer Improvements, Phase II	$ 6,518	$ 2,451	$ 4,067	$ -	$ -	$ -
AT013700	Atlantic Trunk Interceptor Force Main Relocation (VDOT Laskin Road Betterment)	$ 86	$ 86	$ -	$ -	$ -	$ -
AT014000	Lynnhaven-Great Neck IFM (SF-021) Relocation	$ 2,500	$ -	$ 2,500	$ -	$ -	$ -
AT014100	Suffolk Regional Landfill Transmission Force Main	$ 4,000	$ 4,000	$ -	$ -	$ -	$ -
AT014301	Atlantic Service Area I-I Reduction Phase I (CHES)	$ 13,635	$ 1,143	$ 761	$ 999	$ 6,547	$ 4,169
AT014302	Atlantic Service Area I-I Reduction Phase II (CHES)	$ 11,755	$ 1,159	$ 729	$ 760	$ 5,554	$ 3,549
AT014303	Chesapeake Pump Station Capacity Improvements (AT-HPP-01C)	$ 991	$ -	$ -	$ 55	$ 198	$ 738
AT014600	Kempsville Interceptor Force Main Replacement - Phase I	$ 6,201	$ 111	$ 369	$ 1,350	$ 3,488	$ 884
AT015200	Cedar Road Interceptor Force Main Replacement Phase I	$ 6,445	$ 149	$ 349	$ 1,148	$ 3,565	$ 1,234
AT015300	High Priority Projects Round 2 Project 2	$ 30,738	$ -	$ -	$ -	$ -	$ -
AT015400	Doziers Corner Pump Station Replacement	$ 10,952	$ 548	$ 6,328	$ 4,075	$ -	$ -
AT015500	Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements	$ 1,431	$ 1,431	$ -	$ -	$ -	$ -
AT015800	Atlantic Treatment Plant Liquid Side Odor Evaluation and Improvements	$ 1,554	$ 1,433	$ 121	$ -	$ -	$ -
AT015900	Atlantic Treatment Plant Gravity Belt Thickener and Pre-Dewatering Polymer Improvements	$ 6,352	$ 164	$ 166	$ 2,440	$ 2,920	$ 662
AT016000	Atlantic Treatment Plant Odor and Solids Improvements 2023	$ 54,520	$ 2,592	$ 2,660	$ 19,934	$ 23,913	$ 5,421
AT016100	Atlantic Treatment Plant Solids Curing Facility and Pad Improvements	$ 11,661	$ 512	$ 574	$ 4,282	$ 5,130	$ 1,164
AT016300	Cedar Road Interceptor Force Main Replacement Phase II	$ 14,468	$ 760	$ 2,477	$ 5,337	$ 5,337	$ 557
	Subtotal	$ 223,545	$ 29,955	$ 38,350	$ 46,874	$ 59,516	$ 18,378
Boat Harbor							
BH013020	Willard Avenue Pump Station Replacement	$ 10,658	$ 7,095	$ 3,557	$ 6	$ -	$ -
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	$ 5	$ 5	$ -	$ -	$ -	$ -
BH014220	Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II	$ 7,239	$ 5,779	$ 1,456	$ 4	$ -	$ -
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	$ 1,331	$ 1,326	$ 5	$ -	$ -	$ -
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	$ 1,454	$ 1,454	$ -	$ -	$ -	$ -
BH014610	46th Street Diversion Sewer Rehabilitation Replacement, HII-NNS	$ 2,158	$ 2,158	$ -	$ -	$ -	$ -
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	$ 1,495	$ 987	$ 501	$ 8	$ -	$ -
BH015700	Boat Harbor Treatment Plant Pump Station Conversion	$ 191,193	$ 35,094	$ 83,885	$ 65,161	$ 7,053	$ -
BH015710	Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)	$ 130,278	$ 67,330	$ 59,862	$ 3,087	$ -	$ -
BH015720	Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)	$ 38,019	$ 18,628	$ 19,391	$ -	$ -	$ -
BH015730	Boat Harbor Treatment Plant Decommission and Demolition	$ 51,833	$ -	$ 780	$ 2,195	$ 23,025	$ 25,833
BH015802	Claremont Pump Station Upgrade (BH-HPP-01B)	$ 12,772	$ -	$ -	$ 327	$ 1,045	$ 11,400
BH015803	Chesapeake Avenue Interceptor Improvements (BH-HPP-01C)	$ 17,254	$ -	$ -	$ 1,389	$ 2,242	$ 13,623
BH015900	Bloxoms Corner Force Main Replacement	$ 245	$ 245	$ -	$ -	$ -	$ -
BH016100	High Priority Projects Round 2 Project 3	$ 30,200	$ -	$ -	$ -	$ -	$ -
BH016200	Inflow Reduction Program - Phase II	$ 10,600	$ 265	$ 2,332	$ 4,770	$ 3,210	$ 23
	Subtotal	$ 476,535	$ 140,366	$ 171,769	$ 76,945	$ 36,576	$ 50,879

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
Administration						
AD012500	Cybersecurity Practice & Procedure Initiative	$ -	$ -	$ -	$ -	$ -
AD012600	Central Environmental Laboratory Expansion and Rehabilitation	$ -	$ -	$ -	$ -	$ -
AD012700	Capital Improvement Program Labor Program	$ 3,852	$ 3,852	$ 3,852	$ 3,531	$ -
AD012720	Capital Improvement Program Internal Labor FY24	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 3,852	$ 3,852	$ 3,852	$ 3,531	$ -
Army Base						
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	$ 6,376	$ 40	$ -	$ -	$ -
AB010500	Section W Force Main Replacement	$ -	$ -	$ -	$ -	$ -
AB011900	Army Base Treatment Plant Administration Building Renovation (2021)	$ -	$ -	$ -	$ -	$ -
AB012100	Army Base Treatment Plant Generator Control Replacement	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 6,376	$ 40	$ -	$ -	$ -
Atlantic						
AT011520	Shipps Corner Pressure Reducing Station Modifications	$ -	$ -	$ -	$ -	$ -
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	$ -	$ -	$ -	$ -	$ -
AT012920	Atlantic Treatment Plant Access Road Extension	$ -	$ -	$ -	$ -	$ -
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	$ -	$ -	$ -	$ -	$ -
AT013010	Washington District Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
AT013110	South Norfolk Area Gravity Sewer Improvements, Phase II	$ -	$ -	$ -	$ -	$ -
AT013700	Atlantic Trunk Interceptor Force Main Relocation (VDOT Laskin Road Betterment)	$ -	$ -	$ -	$ -	$ -
AT014000	Lynnhaven-Great Neck IFM (SF-021) Relocation	$ -	$ -	$ -	$ -	$ -
AT014100	Suffolk Regional Landfill Transmission Force Main	$ -	$ -	$ -	$ -	$ -
AT014301	Atlantic Service Area I-I Reduction Phase I (CHES)	$ 16	$ -	$ -	$ -	$ -
AT014302	Atlantic Service Area I-I Reduction Phase II (CHES)	$ 4	$ -	$ -	$ -	$ -
AT014303	Chesapeake Pump Station Capacity Improvements (AT-HPP-01C)	$ -	$ -	$ -	$ -	$ -
AT014600	Kempsville Interceptor Force Main Replacement - Phase I	$ -	$ -	$ -	$ -	$ -
AT015200	Cedar Road Interceptor Force Main Replacement Phase I	$ -	$ -	$ -	$ -	$ -
AT015300	High Priority Projects Round 2 Project 2	$ -	$ -	$ 3,381	$ 3,535	$ 23,536
AT015400	Doziers Corner Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
AT015500	Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements	$ -	$ -	$ -	$ -	$ -
AT015800	Atlantic Treatment Plant Liquid Side Odor Evaluation and Improvements	$ -	$ -	$ -	$ -	$ -
AT015900	Atlantic Treatment Plant Gravity Belt Thickener and Pre-Dewatering Polymer Improvements	$ -	$ -	$ -	$ -	$ -
AT016000	Atlantic Treatment Plant Odor and Solids Improvements 2023	$ -	$ -	$ -	$ -	$ -
AT016100	Atlantic Treatment Plant Solids Curing Facility and Pad Improvements	$ -	$ -	$ -	$ -	$ -
AT016300	Cedar Road Interceptor Force Main Replacement Phase II	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 19	$ -	$ 3,381	$ 3,535	$ 23,536
Boat Harbor						
BH013020	Willard Avenue Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	$ -	$ -	$ -	$ -	$ -
BH014220	Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II	$ -	$ -	$ -	$ -	$ -
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	$ -	$ -	$ -	$ -	$ -
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	$ -	$ -	$ -	$ -	$ -
BH014610	46th Street Diversion Sewer Rehabilitation Replacement, HII-NNS	$ -	$ -	$ -	$ -	$ -
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	$ -	$ -	$ -	$ -	$ -
BH015700	Boat Harbor Treatment Plant Pump Station Conversion	$ -	$ -	$ -	$ -	$ -
BH015710	Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)	$ -	$ -	$ -	$ -	$ -
BH015720	Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)	$ -	$ -	$ -	$ -	$ -
BH015730	Boat Harbor Treatment Plant Decommission and Demolition	$ -	$ -	$ -	$ -	$ -
BH015802	Claremont Pump Station Upgrade (BH-HPP-01B)	$ -	$ -	$ -	$ -	$ -
BH015803	Chesapeake Avenue Interceptor Improvements (BH-HPP-01C)	$ -	$ -	$ -	$ -	$ -
BH015900	Bloxoms Corner Force Main Replacement	$ -	$ -	$ -	$ -	$ -
BH016100	High Priority Projects Round 2 Project 3	$ -	$ -	$ -	$ -	$ -
BH016200	Inflow Reduction Program - Phase II	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ -	$ -	$ -

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
Chesapeake-Elizabeth							
CE011300	Birchwood Trunk 24-Inch and 30-Inch Force Main at Independence Boulevard Replacement Phase II	$ 2,010	$ 1,198	$ 812	$ -	$ -	$ -
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	$ 1,989	$ 1,175	$ 814	$ -	$ -	$ -
CE011810	Chesapeake-Elizabeth Treatment Plant Decommissioning	$ 8,123	$ 4,337	$ 3,786	$ -	$ -	$ -
CE011837	Private Pump Station Improvements	$ 433	$ 433	$ -	$ -	$ -	$ -
CE011841	Oceana Off-line Storage Facility Land Acquisition	$ 469	$ 469	$ -	$ -	$ -	$ -
CE011850	Atlantic Service Area Automated Diversion Facilities Phase I	$ 200	$ 200	$ -	$ -	$ -	$ -
CE012100	Witchduck Road Interceptor Force Main Improvements	$ 7,438	$ 95	$ 417	$ 1,824	$ 3,401	$ 1,701
	Subtotal	$ 20,663	$ 7,908	$ 5,829	$ 1,824	$ 3,401	$ 1,701
Eastern Shore							
ES010100	Eastern Shore Infrastructure Improvements - Transmission Force Main Phase I	$ 22,451	$ 18,091	$ 4,361	$ -	$ -	$ -
ES010300	Onancock Treatment Plant Administration Building Upgrade	$ 4,341	$ 193	$ 177	$ 3,971	$ -	$ -
ES010400	Northern Accomack Wastewater Conveyance, Treatment, and Disposal Study	$ 244	$ 244	$ -	$ -	$ -	$ -
ES010500	Chincoteague Treatment Plant	$ 5,952	$ 3,711	$ 2,241	$ -	$ -	$ -
ES010600	Onancock Meter Replacement	$ 2,106	$ 1,852	$ 254	$ -	$ -	$ -
ES010800	Onancock Treatment Plant Solids Handling Improvements	$ 6,694	$ 1,667	$ 4,616	$ 411	$ -	$ -
ES010900	Riverside Nassawadox Treatment Plant Decommissioning	$ 970	$ 138	$ 566	$ 267	$ -	$ -
	Subtotal	$ 42,759	$ 25,895	$ 12,215	$ 4,649	$ -	$ -
James River							
JR011730	Jefferson Avenue Interceptor Force Main Replacement Phase III	$ 13,300	$ 9,968	$ 3,329	$ 3	$ -	$ -
JR013200	Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II	$ 2,302	$ 2,298	$ 4	$ -	$ -	$ -
JR013400	James River Treatment Plant Advanced Nutrient Reduction Improvements	$ 194,530	$ 58,929	$ 59,163	$ 59,163	$ 17,275	$ -
JR013401	James River Treatment Plant MIFAS Conversion Emergency	$ 1,640	$ 679	$ 679	$ 283	$ -	$ -
JR013410	James River Treatment Plant Outfall Modifications	$ 1,350	$ 750	$ 190	$ 203	$ 203	$ 5
JR013500	Lucas Creek Pump Station Replacement	$ 15,438	$ 9,747	$ 5,691	$ -	$ -	$ -
JR013610	James River Treatment Plant Automation Improvements Phase I	$ 9,536	$ 8,732	$ 804	$ -	$ -	$ -
JR013620	James River Treatment Plant Automation Improvements Phase II	$ 10,970	$ -	$ 240	$ 880	$ 5,214	$ 4,635
JR013700	High Priority Projects Round 2 Project 6	$ 19,565	$ -	$ -	$ -	$ -	$ -
JR013800	James River Treatment Plant Shoreline Stabilization	$ 62	$ 62	$ -	$ -	$ -	$ -
JR014000	Center Avenue Force Main Replacement	$ 19,233	$ -	$ 1,833	$ 665	$ -	$ 5
JR014100	James River Treatment Plant Viewshed Improvements	$ 430	$ -	$ 112	$ 58	$ 260	$ -
JR014200	Kiln Creek Interceptor Force Main Replacement	$ 10,734	$ 705	$ 1,013	$ 6,361	$ 2,655	$ -
	Subtotal	$ 281,286	$ 91,870	$ 73,057	$ 67,616	$ 25,608	$ 4,645
Middle Peninsula							
MP011700	Middle Peninsula Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	$ 752	$ 721	$ 11	$ 11	$ 8	$ -
MP012000	King William Treatment Plant Improvements Phase I	$ 63	$ 62	$ 1	$ -	$ -	$ -
MP013300	King William Treatment Plant Improvements Phase II	$ 29,388	$ 5,272	$ 18,057	$ 6,046	$ 13	$ -
MP013500	Middlesex Collection System-Cooks Corner	$ 849	$ 849	$ -	$ -	$ -	$ -
MP013710	Middlesex Interceptor System Program Phase II-Saluda Pump Station	$ 2,497	$ 1,246	$ 1,246	$ 5	$ -	$ -
MP013720	Middlesex Interceptor System Program Phase II-Hartfield Pump Station	$ 6,382	$ 3,189	$ 3,189	$ 5	$ -	$ -
MP013730	Middlesex Interceptor System Program Phase II-Transmission Force Main	$ 32,075	$ 16,035	$ 16,035	$ 5	$ -	$ -
MP013810	Middlesex Interceptor System Program Phase III (Deltaville)	$ 2,313	$ 348	$ 1,959	$ 7	$ -	$ -
MP014410	Middlesex County Hartfield Sewer Collection System Phase I Improvements	$ 2,004	$ 2,000	$ 4	$ -	$ -	$ -
MP014510	Middlesex County Saluda Sewer Collection System Phase I	$ 209	$ 206	$ 4	$ -	$ -	$ -
MP014700	Small Communities Rehabilitation Phase IV	$ 1,760	$ 1,400	$ 357	$ 3	$ -	$ -
MP014800	Small Communities Rehabilitation Phase V	$ 461	$ 340	$ 119	$ 3	$ -	$ -
MP014900	Middle Peninsula Operations Center Locker Room and Administrative Facilities	$ 2	$ 2	$ -	$ -	$ -	$ -
MP015000	Sharon Road Gravity Sewer Improvements	$ 1,059	$ 1,056	$ 3	$ -	$ -	$ -
MP015100	West Point Pump Station 4 (Thompson Avenue) Rehabilitation	$ 1,252	$ 997	$ 253	$ 1	$ -	$ -
MP015300	King William Central Crossing Pump Station Rehabilitation	$ 1,727	$ 887	$ 835	$ 4	$ -	$ -
MP015500	Small Communities Rehabilitation Phase VI	$ 2,692	$ 2,014	$ 676	$ 3	$ -	$ -
MP015600	West Point Treatment Plant Final Effluent Pump Station Improvements	$ 2,710	$ 629	$ 1,461	$ 615	$ 4	$ -
MP015700	West Point Treatment Plant Secondary Clarifier Improvements	$ 3,436	$ 845	$ 1,822	$ 765	$ 4	$ -
MP015800	King William Main Pump Station Improvements	$ 1,340	$ 100	$ 1,236	$ 4	$ -	$ -
MP015900	Middle Peninsula Wastewater Master Plan	$ 400	$ 209	$ 191	$ -	$ -	$ -
	Subtotal	$ 93,370	$ 38,407	$ 47,459	$ 7,475	$ 29	$ -

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
Chesapeake-Elizabeth						
CE011300	Birchwood Trunk 24-Inch and 30-Inch Force Main at Independence Boulevard Replacement Phase II	$ -	$ -	$ -	$ -	$ -
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	$ -	$ -	$ -	$ -	$ -
CE011810	Chesapeake-Elizabeth Treatment Plant Decommissioning	$ -	$ -	$ -	$ -	$ -
CE011837	Private Pump Station Improvements	$ -	$ -	$ -	$ -	$ -
CE011841	Oceana Off-line Storage Facility Land Acquisition	$ -	$ -	$ -	$ -	$ -
CE011850	Atlantic Service Area Automated Diversion Facilities Phase I	$ -	$ -	$ -	$ -	$ -
CE012100	Witchduck Road Interceptor Force Main Improvements	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ -	$ -	$ -
Eastern Shore						
ES010100	Eastern Shore Infrastructure Improvements - Transmission Force Main Phase I	$ -	$ -	$ -	$ -	$ -
ES010300	Onancock Treatment Plant Administration Building Upgrade	$ -	$ -	$ -	$ -	$ -
ES010400	Northern Accomack Wastewater Conveyance, Treatment, and Disposal Study	$ -	$ -	$ -	$ -	$ -
ES010500	Chincoteague Treatment Plant	$ -	$ -	$ -	$ -	$ -
ES010600	Onancock Meter Replacement	$ -	$ -	$ -	$ -	$ -
ES010800	Onancock Treatment Plant Solids Handling Improvements	$ -	$ -	$ -	$ -	$ -
ES010900	Riverside Nassawadox Treatment Plant Decommissioning	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ -	$ -	$ -
James River						
JR011730	Jefferson Avenue Interceptor Force Main Replacement Phase III	$ -	$ -	$ -	$ -	$ -
JR013200	Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II	$ -	$ -	$ -	$ -	$ -
JR013400	James River Treatment Plant Advanced Nutrient Reduction Improvements	$ -	$ -	$ -	$ -	$ -
JR013401	James River Treatment Plant MIFAS Conversion Emergency	$ -	$ -	$ -	$ -	$ -
JR013410	James River Treatment Plant Outfall Modifications	$ -	$ -	$ -	$ -	$ -
JR013500	Lucas Creek Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
JR013610	James River Treatment Plant Automation Improvements Phase I	$ -	$ -	$ -	$ -	$ -
JR013620	James River Treatment Plant Automation Improvements Phase II	$ -	$ -	$ -	$ -	$ -
JR013700	High Priority Projects Round 2 Project 6	$ -	$ -	$ -	$ -	$ 1,761
JR013800	James River Treatment Plant Shoreline Stabilization	$ -	$ -	$ -	$ -	$ -
JR014000	Center Avenue Force Main Replacement	$ 16,729	$ -	$ -	$ -	$ -
JR014100	James River Treatment Plant Viewshed Improvements	$ -	$ -	$ -	$ -	$ -
JR014200	Kiln Creek Interceptor Force Main Replacement	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 16,729	$ -	$ -	$ -	$ 1,761
Middle Peninsula						
MP011700	Middle Peninsula Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	$ -	$ -	$ -	$ -	$ -
MP012000	King William Treatment Plant Improvements Phase I	$ -	$ -	$ -	$ -	$ -
MP013300	King William Treatment Plant Improvements Phase II	$ -	$ -	$ -	$ -	$ -
MP013500	Middlesex Collection System-Cooks Corner	$ -	$ -	$ -	$ -	$ -
MP013710	Middlesex Interceptor System Program Phase II-Saluda Pump Station	$ -	$ -	$ -	$ -	$ -
MP013720	Middlesex Interceptor System Program Phase II-Hartfield Pump Station	$ -	$ -	$ -	$ -	$ -
MP013730	Middlesex Interceptor System Program Phase II-Transmission Force Main	$ -	$ -	$ -	$ -	$ -
MP013810	Middlesex Interceptor System Program Phase III (Deltaville)	$ -	$ -	$ -	$ -	$ -
MP014410	Middlesex County Hartfield Sewer Collection System Phase I Improvements	$ -	$ -	$ -	$ -	$ -
MP014510	Middlesex County Saluda Sewer Collection System Phase I	$ -	$ -	$ -	$ -	$ -
MP014700	Small Communities Rehabilitation Phase IV	$ -	$ -	$ -	$ -	$ -
MP014800	Small Communities Rehabilitation Phase V	$ -	$ -	$ -	$ -	$ -
MP014900	Middle Peninsula Operations Center Locker Room and Administrative Facilities	$ -	$ -	$ -	$ -	$ -
MP015000	Sharon Road Gravity Sewer Improvements	$ -	$ -	$ -	$ -	$ -
MP015100	West Point Pump Station 4 (Thompson Avenue) Rehabilitation	$ -	$ -	$ -	$ -	$ -
MP015300	King William Central Crossing Pump Station Rehabilitation	$ -	$ -	$ -	$ -	$ -
MP015500	Small Communities Rehabilitation Phase VI	$ -	$ -	$ -	$ -	$ -
MP015600	West Point Treatment Plant Final Effluent Pump Station Improvements	$ -	$ -	$ -	$ -	$ -
MP015700	West Point Treatment Plant Secondary Clarifier Improvements	$ -	$ -	$ -	$ -	$ -
MP015800	King William Main Pump Station Improvements	$ -	$ -	$ -	$ -	$ -
MP015900	Middle Peninsula Wastewater Master Plan	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ -	$ -	$ -

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
Nansemond							
NP010620	Suffolk Pump Station Replacement	$ 31,328	$ 10,452	$ 12,526	$ 8,351	$ -	$ -
NP012400	Western Branch Sewer System Gravity Improvements	$ 4,722	$ 184	$ 2,840	$ 1,698	$ -	$ -
NP013000	Nansemond Treatment Plant Motor Control Center Replacements	$ 1,851	$ 1,169	$ 682	$ -	$ -	$ -
NP013700	Nansemond Treatment Plant Struvite Recovery Facility Improvements	$ 25,446	$ 19,082	$ 6,363	$ 1	$ -	$ -
NP013820	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Ph II	$ 274,459	$ 118,923	$ 131,763	$ 23,773	$ -	$ -
NP013901	Nansemond Service Area I-I Reduction Phase II (CHES)	$ 18,144	$ -	$ -	$ -	$ 1,198	$ 1,491
NP013902	Nansemond Service Area I-I Reduction Phase III (CHES)	$ 18,057	$ -	$ 963	$ 1,359	$ 2,776	$ 5,175
NP014000	Wilroy Pressure Reducing Station and Off-line Storage Facility	$ 40,964	$ 2,693	$ 8,769	$ 16,092	$ 13,410	$ -
NP014500	Nansemond Treatment Plant Regional Residuals Facility Upgrade	$ 1,953	$ 1,945	$ 8	$ -	$ -	$ -
NP014600	West Road Interceptor Force Main Extension	$ 12,105	$ 6,025	$ 6,027	$ 53	$ -	$ -
NP014700	Nansemond Treatment Plant Digester Capacity Upgrades	$ 22,748	$ 15,159	$ 7,584	$ 5	$ -	$ -
NP014800	High Priority Projects Round 2 Project 8	$ 32,226	$ -	$ -	$ -	$ -	$ -
NP014900	Nansemond Treatment Plant Interceptors Storage Yard	$ 674	$ 674	$ -	$ -	$ -	$ -
NP015000	Shell Road Interceptor Force Main (SF-144) Segmental Replacement	$ 787	$ -	$ 55	$ 183	$ 435	$ 114
NP015100	Nansemond Treatment Plant Administration Building Replacement	$ 9,145	$ -	$ 322	$ 1,036	$ 7,787	$ -
NP015400	Nansemond Treatment Plant Solids Drying Feasibility and Site Study	$ 300	$ 188	$ 113	$ -	$ -	$ -
NP015500	Town of Dendron Discharge Force Main Replacement	$ 2,066	$ 150	$ 1,135	$ 781	$ -	$ -
	Subtotal	$ 464,751	$ 176,643	$ 179,151	$ 53,331	$ 25,606	$ 6,780
Surry							
SU010200	Surry Hydraulic Improvements and Interceptor Force Main	$ 655	$ 655	$ -	$ -	$ -	$ -
SU010400	Surry Force Main and Pump Station-Dominion Power Extension	$ 4,804	$ 4,804	$ -	$ -	$ -	$ -
	Subtotal	$ 5,460	$ 5,460	$ -	$ -	$ -	$ -
Virginia Initiative Plant							
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	$ 4,001	$ 1,834	$ 2,001	$ 167	$ -	$ -
VP014010	Ferebee Avenue Pump Station Replacement	$ 10,989	$ 4,130	$ 5,487	$ 1,372	$ -	$ -
VP014022	Sanitary Sewer Replacement 1950 – Part 2	$ 15,674	$ 7,837	$ 7,837	$ -	$ -	$ -
VP014700	Ingleside Road Pump Station Replacement	$ 419	$ 212	$ 207	$ -	$ -	$ -
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	$ 3,272	$ 439	$ 2,833	$ -	$ -	$ -
VP015320	Larchmont Area Sanitary Sewer Improvements	$ 35,232	$ 8,165	$ 13,459	$ 13,459	$ 148	$ -
VP015410	City Park Pump Station (PS 106) Replacement	$ 6,511	$ 2,374	$ 3,545	$ 591	$ -	$ -
VP015420	Luxembourg Pump Station (PS 113) Replacement and Ashland Sewer Extension	$ 9,886	$ 2,289	$ 4,558	$ 3,038	$ -	$ -
VP015430	Chesapeake Boulevard Pump Station (PS 105) Replacement and Norfolk Pump Station (PS 57) Rehabilitation	$ 8,011	$ 626	$ 3,692	$ 3,692	$ -	$ -
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	$ 4,365	$ 1,984	$ 2,381	$ -	$ -	$ -
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	$ 6,219	$ 2,830	$ 3,389	$ -	$ -	$ -
VP017120	Central Norfolk Area Gravity Sewer Improvements Phase II	$ 3,530	$ 2,330	$ 1,200	$ -	$ -	$ -
VP018000	Park Avenue Pump Station Replacement	$ 6,285	$ 3,970	$ 2,316	$ -	$ -	$ -
VP018200	Effingham Interceptor Vault Removal	$ 1,648	$ 1,648	$ -	$ -	$ -	$ -
VP018301	VIP Service Area I-I Reduction Phase I (PORTS)	$ 9,050	$ 409	$ 3,591	$ 4,000	$ 1,050	$ -
VP018302	Portsmouth Pump Station Upgrades (VIP-HPP-04B)	$ 12,051	$ -	$ -	$ 330	$ 872	$ 7,073
VP018303	VIP Service Area I-I Reduction Phase III (PORTS)	$ 9,863	$ 1,658	$ 2,411	$ 4,571	$ 1,223	$ -
VP018304	Camden Avenue Pump Station Upgrades (VIP-HPP-04D)	$ 6,271	$ -	$ -	$ 193	$ 314	$ 1,977
VP018305	Camden Avenue Gravity Improvements (VIP-HPP-04E)	$ 7,263	$ -	$ -	$ 144	$ 336	$ 3,448
VP018400	State Street Pressure Reducing Station and Offline Storage (VIP-HPP-05)	$ 21,524	$ 342	$ 342	$ 342	$ 651	$ 746
VP018500	Elizabeth River Crossing Reliability Improvements	$ 1,311	$ 1,218	$ 93	$ -	$ -	$ -
VP018800	Virginia Initiative Plant Administration Building Renovation	$ 5,165	$ 2,329	$ 2,809	$ 27	$ -	$ -
VP018900	Norchester Pump Station Screening Improvements	$ 442	$ 206	$ 234	$ 3	$ -	$ -
VP019000	Colley Ave Pump Station Pump Replacement	$ 1,572	$ 1,562	$ 11	$ -	$ -	$ -
VP019100	Virginia Initiative Plant Incinerator Burner Replacement	$ 2,666	$ 2,666	$ -	$ -	$ -	$ -
VP019200	Virginia Initiative Plant Motor Control Center Replacements	$ 9,000	$ 4,500	$ 4,500	$ -	$ -	$ -
VP019300	High Priority Projects Round 2 Project 4	$ 14,173	$ -	$ -	$ -	$ -	$ -
VP019400	High Priority Projects Round 2 Project 5	$ 17,103	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 205,407	$ 55,557	$ 66,894	$ 31,930	$ 4,594	$ 13,245
Williamsburg							
WB012500	Lodge Road Pump Station Upgrades	$ 1,754	$ 188	$ 976	$ 587	$ 3	$ -
WB013100	Williamsburg Treatment Plant Outfall Flow Control System Repairs	$ 3,265	$ 2,392	$ 871	$ 2	$ -	$ -
WB013200	High Priority Projects Round 2 Project 1	$ 61,144	$ -	$ -	$ -	$ -	$ -
WB013300	Williamsburg Treatment Plant Motor Control Center Replacements	$ 2,791	$ -	$ 353	$ 403	$ 2,035	$ -
WB013400	Williamsburg Treatment Plant Headworks Influent and Effluent Pipe Rehabilitation	$ 8,400	$ 747	$ 4,927	$ 2,726	$ -	$ -
WB013500	Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements	$ 9,593	$ 513	$ 965	$ 5,674	$ 2,441	$ -
	Subtotal	$ 86,379	$ 3,840	$ 8,092	$ 9,391	$ 4,479	$ -

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
Nansemond						
NP010620	Suffolk Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
NP012400	Western Branch Sewer System Gravity Improvements	$ -	$ -	$ -	$ -	$ -
NP013000	Nansemond Treatment Plant Motor Control Center Replacements	$ -	$ -	$ -	$ -	$ -
NP013700	Nansemond Treatment Plant Struvite Recovery Facility Improvements	$ -	$ -	$ -	$ -	$ -
NP013820	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Ph II	$ -	$ -	$ -	$ -	$ -
NP013901	Nansemond Service Area I-I Reduction Phase II (CHES)	$ 6,454	$ 8,983	$ 18	$ -	$ -
NP013902	Nansemond Service Area I-I Reduction Phase III (CHES)	$ 5,175	$ 2,599	$ 12	$ -	$ -
NP014000	Wilroy Pressure Reducing Station and Off-line Storage Facility	$ -	$ -	$ -	$ -	$ -
NP014500	Nansemond Treatment Plant Regional Residuals Facility Upgrade	$ -	$ -	$ -	$ -	$ -
NP014600	West Road Interceptor Force Main Extension	$ -	$ -	$ -	$ -	$ -
NP014700	Nansemond Treatment Plant Digester Capacity Upgrades	$ -	$ -	$ -	$ -	$ -
NP014800	High Priority Projects Round 2 Project 8	$ -	$ -	$ -	$ -	$ -
NP014900	Nansemond Treatment Plant Interceptors Storage Yard	$ -	$ -	$ -	$ -	$ -
NP015000	Shell Road Interceptor Force Main (SF-144) Segmental Replacement	$ -	$ -	$ -	$ -	$ -
NP015100	Nansemond Treatment Plant Administration Building Replacement	$ -	$ -	$ -	$ -	$ -
NP015400	Nansemond Treatment Plant Solids Drying Feasibility and Site Study	$ -	$ -	$ -	$ -	$ -
NP015500	Town of Dendron Discharge Force Main Replacement	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 11,629	$ 11,582	$ 29	$ -	$ -
Surry						
SU010200	Surry Hydraulic Improvements and Interceptor Force Main	$ -	$ -	$ -	$ -	$ -
SU010400	Surry Force Main and Pump Station-Dominion Power Extension	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ -	$ -	$ -
Virginia Initiative Plant						
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	$ -	$ -	$ -	$ -	$ -
VP014010	Ferebee Avenue Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
VP014022	Sanitary Sewer Replacement 1950 – Part 2	$ -	$ -	$ -	$ -	$ -
VP014700	Ingleside Road Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	$ -	$ -	$ -	$ -	$ -
VP015320	Larchmont Area Sanitary Sewer Improvements	$ -	$ -	$ -	$ -	$ -
VP015410	City Park Pump Station (PS 106) Replacement	$ -	$ -	$ -	$ -	$ -
VP015420	Luxembourg Pump Station (PS 113) Replacement and Ashland Sewer Extension	$ -	$ -	$ -	$ -	$ -
VP015430	Chesapeake Boulevard Pump Station (PS 105) Replacement and Norfolk Pump Station (PS 57) Rehabilitation	$ -	$ -	$ -	$ -	$ -
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	$ -	$ -	$ -	$ -	$ -
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	$ -	$ -	$ -	$ -	$ -
VP017120	Central Norfolk Area Gravity Sewer Improvements Phase II	$ -	$ -	$ -	$ -	$ -
VP018000	Park Avenue Pump Station Replacement	$ -	$ -	$ -	$ -	$ -
VP018200	Effingham Interceptor Vault Removal	$ -	$ -	$ -	$ -	$ -
VP018301	VIP Service Area I-I Reduction Phase I (PORTS)	$ -	$ -	$ -	$ -	$ -
VP018302	Portsmouth Pump Station Upgrades (VIP-HPP-04B)	$ 3,775	$ -	$ -	$ -	$ -
VP018303	VIP Service Area I-I Reduction Phase III (PORTS)	$ -	$ -	$ -	$ -	$ -
VP018304	Camden Avenue Pump Station Upgrades (VIP-HPP-04D)	$ 3,786	$ -	$ -	$ -	$ -
VP018305	Camden Avenue Gravity Improvements (VIP-HPP-04E)	$ 3,335	$ -	$ -	$ -	$ -
VP018400	State Street Pressure Reducing Station and Offline Storage (VIP-HPP-05)	$ 4,750	$ 10,742	$ 3,600	$ 10	$ -
VP018500	Elizabeth River Crossing Reliability Improvements	$ -	$ -	$ -	$ -	$ -
VP018800	Virginia Initiative Plant Administration Building Renovation	$ -	$ -	$ -	$ -	$ -
VP018900	Norchester Pump Station Screening Improvements	$ -	$ -	$ -	$ -	$ -
VP019000	Colley Ave Pump Station Pump Replacement	$ -	$ -	$ -	$ -	$ -
VP019100	Virginia Initiative Plant Incinerator Burner Replacement	$ -	$ -	$ -	$ -	$ -
VP019200	Virginia Initiative Plant Motor Control Center Replacements	$ -	$ -	$ -	$ -	$ -
VP019300	High Priority Projects Round 2 Project 4	$ -	$ -	$ -	$ 1,559	$ 1,630
VP019400	High Priority Projects Round 2 Project 5	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 15,647	$ 10,742	$ 3,600	$ 1,569	$ 1,630
Williamsburg						
WB012500	Lodge Road Pump Station Upgrades	$ -	$ -	$ -	$ -	$ -
WB013100	Williamsburg Treatment Plant Outfall Flow Control System Repairs	$ -	$ -	$ -	$ -	$ -
WB013200	High Priority Projects Round 2 Project 1	$ -	$ -	$ 6,726	$ 7,990	$ 45,860
WB013300	Williamsburg Treatment Plant Motor Control Center Replacements	$ -	$ -	$ -	$ -	$ -
WB013400	Williamsburg Treatment Plant Headworks Influent and Effluent Pipe Rehabilitation	$ -	$ -	$ -	$ -	$ -
WB013500	Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ -	$ -	$ 6,726	$ 7,990	$ 45,860

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	Total FY-2024 to FY-2033	FY-2024	FY-2025	FY-2026	FY-2027	FY-2028
York River							
YR010300	Foxridge, Woodland Road and Fox Hill Road Gravity Sewer Rehabilitation	$ 2,969	$ 1,610	$ 1,356	$ 3	$ -	$ -
YR010520	Magruder Mercury Interceptor Force Main Replacement - Section B	$ 7,697	$ 3,357	$ 4,338	$ 3	$ -	$ -
YR010530	Magruder Mercury Interceptor Force Main Replacement - Section C	$ 5,935	$ -	$ -	$ -	$ 5,935	$ -
YR010900	Tabb Pressure Reducing Station and Offline Storage Facility	$ 31,244	$ 10,826	$ 14,405	$ 6,008	$ 4	$ -
YR011900	Bethel-Poquoson Force Main Part III Replacement	$ 405	$ 118	$ 202	$ 84	$ -	$ -
YR013900	York River System Isolation Valve Installation and Replacement	$ 1,204	$ 1,204	$ -	$ -	$ -	$ -
YR014000	York River Treatment Plant Administration Building Renovation	$ 3,784	$ 3,780	$ 5	$ -	$ -	$ -
YR014200	LaSalle Avenue Boat Harbor to York River Interconnect Force Main	$ 16,816	$ -	$ 595	$ 1,020	$ 7,618	$ 7,580
YR014300	Bethel-Poquoson Force Main Phase II (Wythe Creek Road) Replacement	$ 316	$ 316	$ -	$ -	$ -	$ -
YR014600	Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing	$ 3,059	$ 3,059	$ -	$ -	$ -	$ -
YR014800	York River Treatment Plant Primary Clarifier Influent and Effluent Pipe Rehabilitation	$ 9,235	$ 6,150	$ 3,080	$ 5	$ -	$ -
YR014900	York River DEMON Upgrades	$ 442	$ 265	$ 177	$ -	$ -	$ -
	Subtotal	$ 83,106	$ 30,685	$ 24,157	$ 7,123	$ 13,557	$ 7,580
General							
GN013300	Treatment Plant Grease Handling Facilities	$ 118	$ 118	$ -	$ -	$ -	$ -
GN014900	North Shore Gravity Sewer Improvements Phase I	$ 7,115	$ 7,109	$ 7	$ -	$ -	$ -
GN015000	South Shore Gravity Sewer Improvements Phase I	$ 815	$ 258	$ 557	$ -	$ -	$ -
GN015300	Interceptor System Valve Improvements Phase I	$ 2,871	$ 1,195	$ 1,672	$ 4	$ -	$ -
GN015400	South Shore Aerial Crossing Improvements	$ 155	$ 155	$ -	$ -	$ -	$ -
GN015800	North Shore Automated Diversion Facilities	$ 1,687	$ 1,682	$ 5	$ -	$ -	$ -
GN016311	Outfall Dispersion Modeling for Full Scale SWIFT	$ 1,125	$ 100	$ 100	$ -	$ -	$ -
GN016320	Program Management of SWIFT Full Scale Implementation	$ 45,474	$ 5,057	$ 5,057	$ 5,057	$ 5,057	$ 4,459
GN016344	James River Land Improvements - Phase I	$ 5,981	$ 5,981	$ -	$ -	$ -	$ -
GN016346	Boat Harbor Transmission Force Main Land Acquisition	$ 5,482	$ 5,482	$ -	$ -	$ -	$ -
GN016347	James River Land Improvements - Phase II	$ 2,046	$ -	$ 905	$ 1,115	$ 26	$ -
GN016350	Williamsburg SWIFT Facility	$ 130,566	$ -	$ -	$ -	$ -	$ -
GN016351	Williamsburg Recharge Wells	$ 40,704	$ -	$ -	$ -	$ -	$ -
GN016360	James River SWIFT Facility	$ 194,948	$ 36,405	$ 62,366	$ 63,942	$ 32,234	$ -
GN016361	James River Recharge Wells (On Site)	$ 2,849	$ 2,849	$ -	$ -	$ -	$ -
GN016362	James River Recharge Wells (Off Site)	$ 39,759	$ 17,881	$ 16,990	$ 4,889	$ -	$ -
GN016363	James River Recharge Well Enhancements	$ 305	$ -	$ 102	$ 198	$ 5	$ -
GN016370	York River SWIFT Facility	$ 211,365	$ -	$ -	$ -	$ -	$ -
GN016371	York River Recharge Wells	$ 70,918	$ -	$ -	$ -	$ -	$ -
GN016380	Nansemond SWIFT Facility	$ 545,472	$ 307	$ 33,382	$ 74,675	$ 149,648	$ 144,478
GN016381	Nansemond Recharge Wells	$ 122,457	$ 197	$ 1,463	$ 13,327	$ 59,808	$ 45,322
GN016390	VIP SWIFT Tertiary Preliminary Engineering	$ 5,377	$ 4,103	$ 1,274	$ -	$ -	$ -
GN016391	VIP SWIFT Tertiary Site Work	$ 32,581	$ 310	$ 385	$ 718	$ 2,829	$ 24,494
GN016392	VIP SWIFT Tertiary Facility	$ 323,886	$ -	$ -	$ 2,946	$ 6,429	$ 458
GN016393	VIP SWIFT Advanced Water Treatment Facility	$ 349,627	$ -	$ -	$ -	$ -	$ -
GN016394	VIP Recharge Wells Land Acquisition	$ 10,300	$ -	$ -	$ -	$ 1,650	$ 4,846
GN016395	VIP Recharge Wells	$ 152,489	$ -	$ -	$ -	$ -	$ -
GN016396	VIP Recharge Wells Integration	$ 84,318	$ -	$ -	$ -	$ -	$ -
GN016700	Treatment Plant Solids Handling Replacement Phase II	$ 4,900	$ 1,400	$ 2,800	$ 700	$ -	$ -
GN017200	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements Phase II	$ 2,443	$ 2,443	$ -	$ -	$ -	$ -
GN017300	Treatment Plant Dewatering Improvement Program	$ 17,879	$ -	$ -	$ -	$ -	$ -
GN017400	Treatment Plant Dewatering Replacement Phase III	$ 3,255	$ 3,255	$ -	$ -	$ -	$ -
GN017500	Fleet Management Program	$ 10,696	$ -	$ 2,698	$ 2,469	$ 1,833	$ 1,843
GN017900	Solids System Improvements for Army Base MHI Offline	$ 2,762	$ 2,762	$ -	$ -	$ -	$ -
GN018500	Fleet Management (FY23)	$ 150	$ 150	$ -	$ -	$ -	$ -
GN018600	North Shore Galvanic Cathodic Protection Rehabilitation	$ 1,371	$ 449	$ 922	$ -	$ -	$ -
GN018700	South Shore Galvanic Cathodic Protection Rehabilitation Phase I	$ 1,548	$ -	$ 153	$ 1,396	$ -	$ -
GN018800	South Shore Galvanic Cathodic Protection Rehabilitation Phase II	$ 1,548	$ 99	$ 1,276	$ 174	$ -	$ -
GN018900	Pump Station Motor Control Center Replacements - Phase I	$ 2,864	$ 1,575	$ 1,289	$ -	$ -	$ -
GN019100	Regional Granular Activated Carbon Reactivation Facility Study Phase I	$ 65	$ 65	$ -	$ -	$ -	$ -
GN019200	Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating Improvements	$ 533	$ 533	$ -	$ -	$ -	$ -
GN019300	Fleet Management (FY24)	$ 2,428	$ 2,428	$ -	$ -	$ -	$ -
GN019400	Water Quality Department Instrumentation Equipment Program	$ 6,301	$ 707	$ 707	$ 707	$ 707	$ 707
GN019500	Water Quality Department Instrumentation Equipment (FY24)	$ 515	$ 515	$ -	$ -	$ -	$ -
GN019600	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements Phase III	$ 9,900	$ -	$ 3,588	$ 6,312	$ -	$ -
GN019700	Treatment Plant Dewatering Improvement Phase IV	$ 3,344	$ 316	$ 1,062	$ 1,966	$ -	$ -
GN019800	Treatment Plant Dewatering Improvement Phase V	$ 3,492	$ -	$ -	$ 330	$ 1,109	$ 2,053
GN019900	Treatment Plant Dewatering Improvement Phase VI	$ 3,492	$ -	$ -	$ -	$ 330	$ 1,109
GN020000	Solar Panel Installation Phase I	$ 1,046	$ -	$ -	$ -	$ -	$ -
GN020100	VIP and Army Base Treatment Plant Secondary Clarifier Weir Cover Installation	$ 1,300	$ 650	$ 650	$ -	$ -	$ -
	Subtotal	$ 1,431,898	$ 106,537	$ 139,409	$ 180,922	$ 261,665	$ 229,769
Future Improvements							
IP010400	Interceptor System Rehabilitation and Replacement	$ 338,934	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 338,934	$ -	$ -	$ -	$ -	$ -
	CIP TOTALS	$ 3,863,947	$ 725,000	$ 784,211	$ 510,526	$ 454,737	$ 349,474

FY-2023 to FY-2024
Cash Flow Projections (in thousands)

CIP No	Project Name	FY-2029	FY-2030	FY-2031	FY-2032	FY-2033
York River						
YR010300	Foxridge, Woodland Road and Fox Hill Road Gravity Sewer Rehabilitation	$ -	$ -	$ -	$ -	$ -
YR010520	Magruder Mercury Interceptor Force Main Replacement - Section B	$ -	$ -	$ -	$ -	$ -
YR010530	Magruder Mercury Interceptor Force Main Replacement - Section C	$ -	$ -	$ -	$ -	$ -
YR010900	Tabb Pressure Reducing Station and Offline Storage Facility	$ -	$ -	$ -	$ -	$ -
YR011900	Bethel-Poquoson Force Main Part III Replacement	$ -	$ -	$ -	$ -	$ -
YR013900	York River System Isolation Valve Installation and Replacement	$ -	$ -	$ -	$ -	$ -
YR014000	York River Treatment Plant Administration Building Renovation	$ -	$ -	$ -	$ -	$ -
YR014200	LaSalle Avenue Boat Harbor to York River Interconnect Force Main	$ 3	$ -	$ -	$ -	$ -
YR014300	Bethel-Poquoson Force Main Phase II (Wythe Creek Road) Replacement	$ -	$ -	$ -	$ -	$ -
YR014600	Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing	$ -	$ -	$ -	$ -	$ -
YR014800	York River Treatment Plant Primary Clarifier Influent and Effluent Pipe Rehabilitation	$ -	$ -	$ -	$ -	$ -
YR014900	York River DEMON Upgrades	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 3	$ -	$ -	$ -	$ -
General						
GN013300	Treatment Plant Grease Handling Facilities	$ -	$ -	$ -	$ -	$ -
GN014900	North Shore Gravity Sewer Improvements Phase I	$ -	$ -	$ -	$ -	$ -
GN015000	South Shore Gravity Sewer Improvements Phase I	$ -	$ -	$ -	$ -	$ -
GN015300	Interceptor System Valve Improvements Phase I	$ -	$ -	$ -	$ -	$ -
GN015400	South Shore Aerial Crossing Improvements	$ -	$ -	$ -	$ -	$ -
GN015800	North Shore Automated Diversion Facilities	$ -	$ -	$ -	$ -	$ -
GN016311	Outfall Dispersion Modeling for Full Scale SWIFT	$ -	$ -	$ -	$ 92	$ 93
GN016320	Program Management of SWIFT Full Scale Implementation	$ 4,416	$ 4,416	$ 4,434	$ 4,451	$ 3,070
GN016344	James River Land Improvements - Phase I	$ -	$ -	$ -	$ -	$ -
GN016346	Boat Harbor Transmission Force Main Land Acquisition	$ -	$ -	$ -	$ -	$ -
GN016347	James River Land Improvements - Phase II	$ -	$ -	$ -	$ -	$ -
GN016350	Williamsburg SWIFT Facility	$ -	$ -	$ -	$ -	$ -
GN016351	Williamsburg Recharge Wells	$ -	$ -	$ -	$ -	$ -
GN016360	James River SWIFT Facility	$ -	$ -	$ -	$ -	$ -
GN016361	James River Recharge Wells (On Site)	$ -	$ -	$ -	$ -	$ -
GN016362	James River Recharge Wells (Off Site)	$ -	$ -	$ -	$ -	$ -
GN016363	James River Recharge Well Enhancements	$ -	$ -	$ -	$ -	$ -
GN016370	York River SWIFT Facility	$ -	$ -	$ -	$ -	$ -
GN016371	York River Recharge Wells	$ -	$ -	$ -	$ -	$ -
GN016380	Nansemond SWIFT Facility	$ 142,982	$ -	$ -	$ -	$ -
GN016381	Nansemond Recharge Wells	$ 2,341	$ -	$ -	$ -	$ -
GN016390	VIP SWIFT Tertiary Preliminary Engineering	$ -	$ -	$ -	$ -	$ -
GN016391	VIP SWIFT Tertiary Site Work	$ 3,845	$ -	$ -	$ -	$ -
GN016392	VIP SWIFT Tertiary Facility	$ 13,938	$ 110,904	$ 136,137	$ 53,074	$ -
GN016393	VIP SWIFT Advanced Water Treatment Facility	$ -	$ -	$ -	$ -	$ -
GN016394	VIP Recharge Wells Land Acquisition	$ 3,803	$ -	$ -	$ -	$ -
GN016395	VIP Recharge Wells	$ -	$ -	$ -	$ -	$ -
GN016396	VIP Recharge Wells Integration	$ -	$ -	$ -	$ -	$ -
GN016700	Treatment Plant Solids Handling Replacement Phase II	$ -	$ -	$ -	$ -	$ -
GN017200	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements Phase II	$ -	$ -	$ -	$ -	$ -
GN017300	Treatment Plant Dewatering Improvement Program	$ 9,080	$ 4,540	$ 4,259	$ -	$ -
GN017400	Treatment Plant Dewatering Replacement Phase III	$ -	$ -	$ -	$ -	$ -
GN017500	Fleet Management Program	$ 1,853	$ -	$ -	$ -	$ -
GN017900	Solids System Improvements for Army Base MHI Offline	$ -	$ -	$ -	$ -	$ -
GN018500	Fleet Management (FY23)	$ -	$ -	$ -	$ -	$ -
GN018600	North Shore Galvanic Cathodic Protection Rehabilitation	$ -	$ -	$ -	$ -	$ -
GN018700	South Shore Galvanic Cathodic Protection Rehabilitation Phase I	$ -	$ -	$ -	$ -	$ -
GN018800	South Shore Galvanic Cathodic Protection Rehabilitation Phase II	$ -	$ -	$ -	$ -	$ -
GN018900	Pump Station Motor Control Center Replacements - Phase I	$ -	$ -	$ -	$ -	$ -
GN019100	Regional Granular Activated Carbon Reactivation Facility Study Phase I	$ -	$ -	$ -	$ -	$ -
GN019200	Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating Improvements	$ -	$ -	$ -	$ -	$ -
GN019300	Fleet Management (FY24)	$ -	$ -	$ -	$ -	$ -
GN019400	Water Quality Department Instrumentation Equipment Program	$ 707	$ 707	$ 707	$ 648	$ -
GN019500	Water Quality Department Instrumentation Equipment (FY24)	$ -	$ -	$ -	$ -	$ -
GN019600	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements Phase III	$ -	$ -	$ -	$ -	$ -
GN019700	Treatment Plant Dewatering Improvement Phase IV	$ -	$ -	$ -	$ -	$ -
GN019800	Treatment Plant Dewatering Improvement Phase V	$ -	$ -	$ -	$ -	$ -
GN019900	Treatment Plant Dewatering Improvement Phase VI	$ 2,053	$ -	$ -	$ -	$ -
GN020000	Solar Panel Installation Phase I	$ 697	$ 349	$ -	$ -	$ -
GN020100	VIP and Army Base Treatment Plant Secondary Clarifier Weir Cover Installation	$ -	$ -	$ -	$ -	$ -
	Subtotal	$ 185,715	$ 120,916	$ 145,536	$ 58,265	$ 3,163
Future Improvements						
IP010400	Interceptor System Rehabilitation and Replacement	$ 30	$ 52,868	$ 36,876	$ 125,110	$ 124,050
	Subtotal	$ 30	$ 52,868	$ 36,876	$ 125,110	$ 124,050
	CIP TOTALS	$ 240,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000

HRSD

1434 Air Rail Avenue
Virginia Beach, VA 23455
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RATE SCHEDULE

Fiscal Year 2024

(July 1, 2023 - June 30, 2024)

HRSD

HRSD Rate Schedule
Fiscal Year-2024
(July 1, 2023 – June 30, 2024)

1. WASTEWATER TREATMENT RATES (All customers except those in the Small Communities)

Accounts are billed either according to a water meter reading or, in the absence of a water meter, at a flat rate per day. A minimum rate of $0.30 per day applies to all metered accounts.

Customers without a utility-owned water meter (typically well water customers) shall be billed according to their own water meter, which must be installed and maintained in accordance with the requirements of this Rate Schedule (except Flat Rate accounts).

a.	**Consumption-Based Accounts** These are accounts with water meters (wastewater charges are generally based on water meter readings)	**$7.60 per 100 cubic feet** of water or a minimum of $0.30 per day (whichever is greater)
b.	**Flat Rate Accounts (typically limited to Single Family Residential with 1-inch meters and smaller)** These are primary residence accounts without water meters or that use a significant amount of water not discharged to the sanitary sewer (irrigation, swimming pools, etc.)	**$2.00 per day**

2. WASTEWATER TREATMENT AND COLLECTION RATES – Small Communities

Community	Total Wastewater Rate per 1,000 gallons	Flat Rate per day
Eastern Shore	$16.08	$2.21
King William	16.31	2.24
Middlesex/Urbanna	16.08	2.21
Surry	16.08	2.21
West Point	16.08	2.21

A minimum rate of $0.30 per day applies to all metered accounts. Customers without a meter must pay the flat rate.

For metered locations in Small Communities not listed above, which are provided both wastewater treatment and collection services, the Total Wastewater Rate per 1,000 gallons shall be $16.08, with a minimum bill of $0.30 per day. Unmetered customers must pay a Flat Rate of $2.21 per day.

Customers without a utility-owned water meter (typically well water customers) shall be billed according to their own water meter, which must be installed and maintained in accordance with the requirements of this Rate Schedule, or, in the absence of a water meter, at a Flat Rate per 30-day period (typically limited to Single Family Residential).

Community	Unit Cost per 1,000 gallons	ERU Usage Rate (133.33 gallons per day)
Mathews	$16.08	$2.21

The amount billed to Mathews residential customers is a flat rate based on an Equivalent Residential water Usage (ERU) of 12,000 gallons per quarter. All others, including commercial, government and professional customers, are billed based on a schedule of fractions or multiples of the ERU as appropriate for each customer category. This schedule may be subject to verification or revision.

All other rates and fees in this Rate Schedule apply to Small Communities accounts when applicable.

3. WASTEWATER TREATMENT AND COLLECTION RATES – Lawnes Point

For metered locations in the Lawnes Point subdivision of Isle of Wight County, accounts are billed the Sewer Rate published by Isle of Wight Public Utilities in addition to the Wastewater Treatment Rate listed in the aforementioned section 1.

All other rates and fees in this Rate Schedule apply to accounts in the Lawnes Point subdivision in Isle of Wight County when applicable.

4. TOWN WHOLESALE TREATMENT RATE

The Town Wholesale Treatment Rate is the rate paid by an incorporated town per specified unit of measure to recover the costs of conveyance and treatment of Domestic Quality Wastewater when the town does not use all HRSD facilities or need all of the services provided to a typical customer. This rate is only applicable to incorporated towns with a population less than 2,000.

Consumption per 1,000 gallons $3.55

5. DELINQUENCY AND RESTORATION SERVICE FEE

Each customer shall be billed a service fee of $15.00 when HRSD provides warning of impending disconnection or disconnects such customer's meter because of non-payment of wastewater treatment or other delinquent charges or fees.

When any such services relating to the customer's meter are performed by the water supplier on behalf of HRSD, a fee to defray the charge imposed by the water supplier will be applied.

6. METER REMOVAL FEE

When water service has been disconnected for non-payment and it becomes necessary to remove the meter, a fee to defray the charge imposed by the water supplier will be applied.

7. DAMAGED LOCK FEE

When it becomes necessary to lock a meter, and the customer damages the lock or removes the lock in an attempt to resume water service, the customer will be billed a fee of $100.00. HRSD will arrange for removal of the meter.

8. DAMAGED METER/ANTENNA FEE

When it becomes necessary to replace a meter and/or antenna that the customer damaged, the customer will be billed a fee of $250.00 plus the cost of the meter and/or antenna.

9. INACCESSIBLE METER FEE

When it becomes necessary to access a meter and the customer deliberately blocks access to the meter, the customer will be billed a fee of $50.00.

10. SERVICE RESTORATION FEE

Customers who have made a sufficient payment following disconnection of water service and request to have service restored outside of standard restoration hours will be billed a fee of $100.00.

11. RETURNED PAYMENT FEE

A fee of $25.00 will be billed each time a financial institution returns a customer's payment. This fee will be refunded upon receipt of satisfactory evidence the payment was returned solely due to the financial institution's error.

12. ADVANCE SERVICE FEE

In cases of repeated delinquency, the customer will be required to pay an advance service fee. The amount will be based on the customer's previous 12-month billing history. Advance service fees will be refunded or automatically applied upon final billing. A customer whose account has not been delinquent for two years may apply in writing for a refund of an advance service fee.

13. ACCOUNT DOCUMENTATION FEE

A fee of $10.00 per account per 12-month period will be charged each time customer requests account documentation.

14. LATE PAYMENT CHARGE

All bills are due and payable when presented. When full payment is not posted to an account by the due date, a late payment charge of 1.5% of the past due amount will be assessed per month.

15. ACCESS CARD REPLACEMENT FEE

When it becomes necessary to replace an electronic access card for automated entry into a HRSD treatment plant or plants, the customer will be required to pay a fee of $25.00 per card.

16. METER READING FEE

In the event HRSD must directly obtain a meter reading due to customer's failure to submit required meter readings, the customer will be required to pay a fee of $75.00.

17. DEDUCTION METER FEE

A fee of $2.00 will be assessed per deduction meter per month.

18. PAYMENT PLAN

A courtesy payment plan may be available for customers temporarily having difficulty managing their bill. Customers approved for a payment plan must maintain eligibility requirements which include maintaining a current account and making timely scheduled payments without a history of late or returned payments.

19. SERVICES RECEIVED WITHOUT BILLING

Wastewater treatment charges may be assessed for services received but not billed (for any reason) for a period of up to three prior years. The rate in effect in the year wastewater treatment services were provided will be applied. If necessary, at HRSD's sole discretion, payment plans may be established for payment of delayed billing or unbilled previous service.

20. HIGH STRENGTH OR UNUSUAL WASTE

a. Surcharges

Type	In Excess of	Per mg/L per 100 CF	Per 100 pounds
Biochemical Oxygen Demand (BOD)	297 mg/L*	$0.000185	$ 2.96
Total Suspended Solids (TSS)	282 mg/L*	0.000612	9.80
Total Phosphorus (TP)	7 mg/L*	0.009258	148.30
Total Kjeldahl Nitrogen (TKN)	57 mg/L*	0.002784	44.59

* Domestic Quality Wastewater

Unusual wastes not covered by this Rate Schedule will be considered separately and may be assigned a special rate.

b. Characterization

To determine the applicability of the surcharge, HRSD will assign an average concentration based on results obtained from similar businesses or may make an initial wastewater monitoring survey of the discharge. Based on business classification averages or survey results, HRSD will institute the surcharge. In cases of unusual wastes not covered by existing surcharge rates, HRSD may allow the customer to provide such tests and equipment needed to provide adequate basis for the surcharge. When wastewater discharge is subject to surcharge, the surcharge may be based on the normal characteristics of that waste. These will be determined from wastewater surveys of discharges from similar operations, wastewater surveys from the individual source, or from industrial, chemical, engineering or other appropriate reference.

c. Pretreatment

Wastewater discharge limitations may be imposed by HRSD to protect transmission and treatment structures or processes and to ensure compliance with federal and state effluent limitation guidelines. Pretreatment before discharge or elimination of the discharge may be required to meet the above guidelines, and/or all health standards as required by the Safe Drinking Water Act. It also may be necessary to remove any type of waste or alter any manner of discharge determined by HRSD to be detrimental to either transmission and treatment structures or processes.

d. Damage to Facilities

In the event either transmission or treatment structures or processes are damaged, or the flow through said structures or processes is hampered by a customer's wastewater discharge, HRSD may make or require to be made, at the customer's expense, such repairs as are necessary to restore transmission or treatment structures or processes to normal system operation.

21. NUTRIENT CREDITS

Type	Asset Charge ($/pound/year)	Operational Charge ($/pound)
Total Suspended Solids	$ 8.39	$ 0.1274
Total Phosphorus (TP)	58.55	1.0226
Total Nitrogen (TN)	13.49	0.2897

Nutrient Credit Rates are established to recover the marginal operational cost to treat pollutants and the capacity of assets consumed to treat the pollutants. HRSD, as provided in its Nutrient Credit Management Policy, may elect to sell these credits if it doesn't jeopardize compliance with its wasteload allocation.

Generally, the Operational Charge is paid in advance every five years based on the then current rate. The charge will be reassessed every five years based on the rate in effect at the time of reassessment. On a case-by-case basis, intervals other than five years may be considered to support alignment with the credit recipient's permit cycle or needs.

Credits required to meet Virginia Pollutant Discharge Elimination System (VPDES) allocations must be paid annually.

22. HAULED WASTEWATER (INDIRECT DISCHARGE WASTE)

Type	Per Gallon
Fats, Oils, and Grease (FOG)	$0.3517
Other Approved Hauled Wastes	$0.1812

23. FLAT RATE ACCOUNTS

Single family residential customers using a significant amount of water not discharged into the sanitary sewer system (typically irrigation systems or swimming pools) can establish a flat rate account with HRSD. The General Manager or Director of Finance may approve a flat rate account for water meters greater than 1-inch if the requester provides sufficient evidence there is a significant portion of water not discharged into the sanitary sewer system relative to average residential water consumption. Alternatively, these customers may have a separate water service installed by their local water provider solely for the uses that do not discharge to the sanitary sewer. This separate service will not be billed wastewater treatment charges by HRSD. Other local water charges may apply. Customers should check with their local water provider for details.

24. CUSTOMER-OWNED METERS

a. Service Meters

i. Meters must be purchased, permanently installed and maintained at the customer's expense.

ii. The customer is required to provide HRSD a meter reading by the 10th day of each month. Charges will be based on this Rate Schedule. If a meter reading is not received by the 10th day of the month, HRSD will bill estimated wastewater treatment charges (and applicable surcharges) based upon consumption determined by HRSD. If the customer fails to provide a meter reading for a third consecutive month, HRSD will read the meter and calculate wastewater treatment charges (and applicable

surcharges) based on consumption since the last actual meter reading, less consumption on the estimated billings. A meter reading fee will be assessed.

iii. All meters installed are subject to periodic inspection and reading by HRSD personnel to ensure the accuracy of billings. Meters may be required, at the customer's expense, to be certified as accurate to manufacturer's specifications. A copy of the certification, if required, must be provided to HRSD. Meters installed after July 1, 1992, must be installed in such a manner as to provide one person access as defined in HRSD's Confined Space Entry Program.

iv. Defective meters must be repaired or replaced at the customer's expense. Billing in the interim will be based on an estimate by HRSD. If necessary, an adjustment will be made based on six months of metered consumption using repaired or replaced meters.

b. Deduction Meters (sub-meters)

Existing commercial, industrial, multi-family residential, and customers served by James City Service Authority (JCSA) (as well as other customers with their own deduction meter installed and registered with HRSD prior to July 1, 2009) can meter their own water use not discharged to the sanitary sewer system. That meter information must be reported to HRSD for a reduction of billed consumption (wastewater treatment charges only). Failure to submit at least one deduction meter reading in a 12-month period will result in permanent termination of deduction meter credits for any single family residential account, with the exception of accounts served by JCSA. Customer-owned deduction meters shall be installed, maintained, read and reported to HRSD as follows:

i. To receive a reduction in wastewater treatment charges, the customer must provide the deduction meter reading to HRSD each billing period. Customers should submit their readings to HRSD five to seven days prior to their scheduled meter-read date to ensure the maximum deduction. The meter-read date can be found on the customer's bill and generally falls on or about the same day of the month for each billing cycle. Deduction meter readings submitted after the stated meter-read date will not be reflected for that billing cycle. If multiple deduction meter readings are submitted within the same bill period, the latest read will be used to calculate the credit.

ii. After receiving the deduction meter reading HRSD will make the appropriate reduction in billed consumption, which will be reflected on the next bill. **Billed wastewater treatment charges will not be reduced below the minimum charges per this Rate Schedule.**

iii. All installed meters are subject to HRSD's inspection and verification of submitted readings. HRSD may require meters be calibrated and their accuracy certified at the customer's expense. A copy of any required certification must be provided to HRSD. Meters installed after July 1, 1992, must be installed in a manner that provides one person access as defined in HRSD's Confined Space Entry Program.

iv. Defective meters must be repaired or replaced at the customer's expense. Otherwise, no deduction will be allowed.

v. Installation of a meter must have complied with the local water jurisdiction's cross-connection control program (backflow prevention).

vi. Customers served by JCSA shall report all deduction meter readings directly to JCSA in accordance with applicable local policies and procedures. JCSA-approved reductions in metered consumption will be applied to HRSD charges accordingly.

c. Non-Residential Account – Special Meter

For special situations, HRSD may require the installation of submeters and/or effluent meters if this is the most practical means of determining the Wastewater Treatment Charge. Installation and charges will be based on the requirements of this Rate Schedule.

25. WASTEWATER FACILITY CHARGE

Wastewater facility charges cover the cost of treatment and conveyance capacity consumed by new connections, new development, or redevelopment resulting in increased wastewater volume or higher strength waste. Facility charges are applied to any sewer or sewer system discharging into HRSD facilities and any increase to existing service. For development occurring at a property previously connected to an existing sanitary sewer tap, the applicable facility charge will be waived for equivalent flow capacity. If a property previously served by a septic tank is connected to the sewer system, the applicable facility charge may be waived for equivalent flow capacity.

a. Volume-Based Facility Charges: These charges apply to all connections and are due and payable prior to the issuance of a building permit/sewer permit by the local jurisdiction. The facility charge shall also be due and payable prior to the renewal and/or reissuance of a building permit except in cases where the applicable facility charge was paid when the building permit was originally issued.

Water Meter Size	Facility Charge
5/8-Inch	$ 2,420
3/4-Inch	4,210
1-Inch	7,410
1 ½-Inch	18,395
2-Inch	35,825
3-Inch	91,665
4-Inch	178,485
6-Inch	456,620
8-Inch	889,185
10-Inch	1,491,070
12-Inch	2,274,730
14-Inch	3,251,050
16-Inch	4,429,645

b. Special Exceptions

Where an expansion of existing facilities is planned, a facility charge will be paid for the difference in meter size.

In the case of a property use change (redevelopment), where the number and/or size of meters change, the facility charge will be computed on the basis of the difference between the facility charge (at present rates) for the existing facility and the facility charge for the new facilities. In the case of redevelopment where neither the number nor size of meters change, there will be no facility charge required. No refund will be made for decreases in capacity.

Where service by a single master meter is changed to multiple individual meters, no facility charge will be required if aggregate usage remains unchanged.

When oversized water meters are used for fire service, to decrease pressure loss, to provide residential sprinkler systems or other unusual situations, the facility charge will be based on the meter normally sized for the service involved without these special considerations. The sizing required for service will be based on American Water Works Association (AWWA) flow requirements, certified by a Registered Professional Engineer or Architect and approved by HRSD.

When a significant quantity of metered water is not returned to the sewer, the facility charge will be based on one of the following:

i. The size of the meter supplying water returned to the sewer.
ii. The size of the meter supplying water minus the size of the customer-owned deduction meter, rounded up to the next available meter size. Deduction meter will be calculated in accordance with AWWA M22 Standards.
iii. The appropriate water meter size (as determined by HRSD) if effluent metering is the only alternative.

If the usage pattern changes from that originally intended and more flow enters the sewer system, the facility charge will be increased accordingly.

c. Refunds

Because of HRSD's certification and allocation of flow policies, payment of a facility charge will not assure connection to the system at the same cost after one year from date of issuance. The holder of a HRSD facility charge receipt, upon written request, will be eligible for refund when:

i. Prior to construction, a change is made in the property which would result in a reduced facility charge.
ii. Building permits are denied or canceled.
iii. Construction has not or will not begin within one year from date of issuance.
iv. Collection was made in error.

No refunds will be issued if HRSD has added treatment or conveyance capacity to the Regional Sanitary Sewer System as a result of the proposed construction prior to the request for a refund.

d. Unusual Situations

For unusual connections or where otherwise indicated, HRSD may make or require to be made, at the customer's expense, such investigations as will provide adequate basis for determination of the facility charge.

HRSD

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Printed on recycled paper using environmentally friendly ink.

Resource: Jill Morrison

AGENDA ITEM 5. – May 23, 2023

Subject: Expenditure of Tax-Exempt Bond Proceeds
Reimbursement Resolution for Fiscal Year (FY) 2024 - 2025

Recommended Action: Adopt reimbursement resolution

Brief: Federal tax law requires that a government officially declare its intent to "reimburse" itself for capital expenditures occurring prior to the availability of tax-exempt debt proceeds. The expenditures to be reimbursed cannot be more than 60 days prior to the date of the resolution. The origin of this requirement was to prevent local governments from issuing excessive and premature tax-exempt debt offerings and subsequently investing the proceeds in taxable, income-generating investments.

The reimbursement resolution amount of $910 million is based on the FY 2024-2033 Capital Improvement Program planned spend for FY-2024, less amounts that HRSD intends to pay with cash, and is a reasonable estimation of the maximum amount of debt proceeds that could be subject to reimbursement. HRSD is currently utilizing a $100 million Clean Water Revolving Loan Fund (VCWRLF) and has received approval for an additional $50 million loan that will close in FY-2024.

In FY-2024, staff will initially use cash to fund Virginia Clean Water Revolving Loan Fund (VCWRLF) and Water Infrastructure Finance and Innovation Act (WIFIA) projects while we await payment from the Department of Environmental Quality and Environmental Protection Agency. Staff may also use cash to fund capital projects and seek reimbursement from our tax-exempt Line of Credit (LOC) with Bank of America or the Water Quality Improvement Fund (WQIF).

Hampton Roads Sanitation District
Resolution of
May 23, 2023

HAMPTON ROADS SANITATION DISTRICT COMMISSION

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RESOLUTION OF THE HAMPTON ROADS SANITATION DISTRICT COMMISSION OF HAMPTON ROADS SANITATION DISTRICT DECLARING ITS INTENTION TO REIMBURSE ITSELF FROM THE PROCEEDS OF ONE OR MORE FINANCINGS FOR CERTAIN EXPENDITURES MADE OR TO BE MADE IN CONNECTION WITH THE ACQUISITION, CONSTRUCTION OR EQUIPPING OF CERTAIN CAPITAL IMPROVEMENTS

Adopted May 23, 2023

RESOLUTION OF THE HAMPTON ROADS SANITATION DISTRICT COMMISSION OF HAMPTON ROADS SANITATION DISTRICT DECLARING ITS INTENTION TO REIMBURSE ITSELF FROM THE PROCEEDS OF ONE OR MORE FINANCINGS FOR CERTAIN EXPENDITURES MADE OR TO BE MADE IN CONNECTION WITH THE ACQUISITION, CONSTRUCTION OR EQUIPPING OF CERTAIN CAPITAL IMPROVEMENTS

WHEREAS, Hampton Roads Sanitation District (the "District") is a political subdivision organized and existing under the laws of the Commonwealth of Virginia; and

WHEREAS, the District prepares a Capital Improvement Program ("CIP") each year for capital projects currently underway and proposed to be undertaken over the next 10 fiscal years (each, a "Fiscal Year" or "FY") and a draft CIP is reviewed by the Hampton Roads Sanitation District Commission (the "Commission") in late March or early April with a final CIP typically adopted in May; and

WHEREAS, in connection with the preparation of the annual CIP, the District prepares annual cash flow projections, setting forth the cash flow needs for capital projects and funding sources for such projects broken down into categories of (a) cash from the District's operation of its facilities, (b) loans to the District from the Virginia Clean Water Revolving Loan Program (such loans, "Clean Water Revolving Fund Loans"), which is administered by the Virginia Resources Authority ("VRA"), and (c) amounts expected to be raised from the issuance by the District of bonds or other obligations (which, for purposes hereof, may include draws from the District's Second Amended and Restated Credit Agreement by and between the District and Bank of America, N.A., dated as of June 30, 2022, as heretofore or hereinafter amended) (such obligations, the "Bonds"); and

WHEREAS, the District has paid, beginning on a date no more than 60 days prior to the date hereof, and will pay, on and after the date hereof, certain expenditures (the "Expenditures") in connection with the acquisition, construction and/or equipping of the capital projects for FY2024 and FY2025, as listed in the District's FY2024 – FY2033 CIP, which was adopted on the date hereof, and attached as Exhibit A hereto (the "Projects"); and

WHEREAS, the Commission has determined that those moneys previously advanced no more than 60 days prior to the date hereof and to be advanced on and after the date hereof to pay the Expenditures are available only for a temporary period and it is necessary to reimburse the District for the Expenditures from the proceeds of the Clean Water Revolving Fund Loans, or one or more issues of Bonds;

NOW, THEREFORE, THE HAMPTON ROADS SANITATION DISTRICT COMMISSION DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The Commission hereby declares the District's intent to reimburse the District with the proceeds of the Bonds or Clean Water Revolving Fund Loans for the Expenditures with respect to the Projects made on or after March 24, 2023, which date is no

more than 60 days prior to the date hereof. The District reasonably expects on the date hereof that it will reimburse the Expenditures with the proceeds of the Bonds or Clean Water Revolving Fund Loans.

Section 2. Each Expenditure was and will be (a) of a type properly chargeable to capital account under general federal income tax principles (determined in each case as of the date of the Expenditure), (b) a cost of issuance with respect to the Clean Water Revolving Fund Loans or the Bonds, (c) an extraordinary nonrecurring item that is not customarily payable from current revenues, or (d) a grant to a party that is not related to or an agent of the District so long as such grant does not impose any obligation or condition (directly or indirectly) to repay any amount to or for the benefit of the District.

Section 3. The maximum principal amount of the Clean Water Revolving Fund Loans and Bonds expected to be issued for the Projects is $910,000,000.

Section 4. The District will make a reimbursement allocation, which is a written allocation by the District that evidences the District's use of proceeds of the Clean Water Revolving Fund Loans or the Bonds to reimburse an Expenditure, no later than 18 months after the later of the date on which the Expenditure is paid or the related Projects are placed in service or abandoned, but in no event more than three years after the date on which the Expenditure is paid. The District recognizes that exceptions are available for certain "preliminary expenditures," costs of issuance, certain *de minimis* amounts, and expenditures for construction projects of at least five years.

Section 5. This resolution shall take effect immediately upon its passage.

[End of Resolution]

RESOLUTION OF THE HAMPTON ROADS SANITATION DISTRICT COMMISSION OF HAMPTON ROADS SANITATION DISTRICT DECLARING ITS INTENTION TO REIMBURSE ITSELF FROM THE PROCEEDS OF ONE OR MORE TAX-EXEMPT FINANCINGS FOR CERTAIN EXPENDITURES MADE OR TO BE MADE IN CONNECTION WITH THE ACQUISITION, CONSTRUCTION OR EQUIPPING OF CERTAIN CAPITAL IMPROVEMENTS

PASSED AND ADOPTED this 23rd day of May, 2023.

The undersigned further certifies that the foregoing has been properly approved and adopted in accordance with all applicable requirements of the Hampton Roads Sanitation District Commission.

_____

Stephen C. Rodriguez, Chair

EXHIBIT A

CAPITAL IMPROVEMENT PROGRAM

FY2024 – FY2033 (10-Year Plan)

Exhibit A
Capital Improvement Program
FY-2024 to FY-2033

Project Number	Project Name	Subtotal	Contingency	Total
PR_AB010500	Section W Force Main Replacement	$ 1,446,990	$ 289,398	$ 1,736,389
PR_AB011900	Army Base Treatment Plant Administration Building Renovation (2021)	$ 2,111,807	$ 422,361	$ 2,534,169
PR_AB012100	Army Base Treatment Plant Generator Control Replacement	$ 625,918	$ 125,184	$ 751,102
PR_AD012600	Central Environmental Laboratory Expansion and Rehabilitation	$ 2,673,625	$ 534,725	$ 3,208,350
PR_AT011520	Shipps Corner Pressure Reducing Station Modifications	$ 356,114	$ 71,223	$ 427,337
PR_AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	$ 5,884,088	$ 1,176,818	$ 7,060,905
PR_AT012920	Atlantic Treatment Plant Access Road Extension	$ 1,219,565	$ 243,913	$ 1,463,478
PR_AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	$ 5,041,279	$ 1,008,256	$ 6,049,535
PR_AT013010	Washington District Pump Station Replacement	$ 3,548,747	$ 709,749	$ 4,258,496
PR_AT013110	South Norfolk Area Gravity Sewer Improvements, Phase II	$ 2,861,358	$ 572,272	$ 3,433,630
PR_AT013700	Atlantic Trunk Interceptor Force Main Relocation (VDOT Laskin Road Betterment)	$ 143,100	$ 28,620	$ 171,720
PR_AT014600	Kempsville Interceptor Force Main Replacement - Phase I	$ 138,280	$ 27,656	$ 165,936
PR_AT015200	Cedar Road Interceptor Force Main Replacement Phase I	$ 166,972	$ 33,394	$ 200,366
PR_AT015400	Doziers Corner Pump Station Replacement	$ 660,000	$ 132,000	$ 792,000
PR_AT015500	Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements	$ 1,788,592	$ 357,718	$ 2,146,311
PR_AT015800	Atlantic Treatment Plant Liquid Side Odor Evaluation and Improvements	$ 1,785,571	$ 357,114	$ 2,142,686
PR_AT015900	Atlantic Treatment Plant Gravity Belt Thickener and Pre-Dewatering Polymer Improvements	$ 197,932	$ 39,586	$ 237,519
PR_AT016000	Atlantic Treatment Plant Odor and Solids Improvements 2023	$ 3,090,917	$ 618,183	$ 3,709,100
PR_AT016300	Cedar Road Interceptor Force Main Replacement Phase II	$ 943,851	$ 188,770	$ 1,132,621
PR_BH013020	Willard Avenue Pump Station Replacement	$ 8,868,982	$ 1,773,796	$ 10,642,778
PR_BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	$ 847,953	$ 169,591	$ 1,017,544
PR_BH014220	Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II	$ 7,224,370	$ 1,444,874	$ 8,669,244
PR_BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	$ 1,547,240	$ 309,448	$ 1,856,689
PR_BH014600	46th Street Diversion Sewer Rehabilitation Replacement	$ 4,332,208	$ 866,442	$ 5,198,650
PR_BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	$ 1,233,740	$ 246,748	$ 1,480,488
PR_BH015700	Boat Harbor Treatment Plant Pump Station Conversion	$ 42,172,662	$ 8,434,532	$ 50,607,194
PR_BH015710	Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)	$ 73,480,902	$ 14,696,180	$ 88,177,083
PR_BH015720	Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)	$ 20,409,827	$ 4,081,965	$ 24,491,792
PR_BH015900	Bloxoms Corner Force Main Replacement	$ 1,741,701	$ 348,340	$ 2,090,041
PR_CE011300	Birchwood Trunk 24-Inch and 30-Inch Force Main at Independence Boulevard Replacement Phase II	$ 1,418,684	$ 283,737	$ 1,702,421
PR_CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	$ 1,370,595	$ 274,119	$ 1,644,714
PR_CE011810	Chesapeake-Elizabeth Treatment Plant Decommissioning	$ 5,031,107	$ 1,006,221	$ 6,037,328
PR_CE011841	Oceana Off-line Storage Facility Land Acquisition	$ 554,412	$ 110,882	$ 665,294
PR_CE011850	Atlantic Service Area Automated Diversion Facilities Phase I	$ 200,000	$ 40,000	$ 240,000
PR_CE012100	Witchduck Road Interceptor Force Main Improvements	$ 114,480	$ 22,896	$ 137,376
PR_ES010100	Eastern Shore Infrastructure Improvements - Transmission Force Main Phase I	$ 22,700,685	$ 4,540,137	$ 27,240,822
PR_ES010300	Onancock Treatment Plant Administration Building Upgrade	$ 214,167	$ 42,833	$ 257,000
PR_ES010500	Chincoteague Treatment Plant	$ 4,337,653	$ 867,531	$ 5,205,184
PR_ES010800	Onancock Treatment Plant Solids Handling Improvements	$ 2,295,159	$ 459,032	$ 2,754,191
PR_GN013300	Treatment Plant Grease Handling Facilities	$ 153,767	$ 30,753	$ 184,520
PR_GN014900	North Shore Gravity Sewer Improvements Phase I	$ 8,885,669	$ 1,777,134	$ 10,662,803
PR_GN015000	South Shore Gravity Sewer Improvements Phase I	$ 308,333	$ 61,667	$ 370,000
PR_GN015300	Interceptor System Valve Improvements Phase I	$ 1,381,542	$ 276,308	$ 1,657,850
PR_GN015400	South Shore Aerial Crossing Improvements	$ 258,889	$ 51,778	$ 310,667
PR_GN015800	North Shore Automated Diversion Facilities	$ 1,683,451	$ 336,690	$ 2,020,141
PR_GN016320	Program Management of SWIFT Full Scale Implementation	$ 7,197,856	$ 1,439,571	$ 8,637,427
PR_GN016346	Boat Harbor Transmission Force Main Land Acquisition	$ 5,482,351	$ 1,096,470	$ 6,578,821
PR_GN016360	James River SWIFT Facility	$ 47,893,969	$ 9,578,794	$ 57,472,763
PR_GN016361	James River Recharge Wells (On Site)	$ 4,030,865	$ 806,173	$ 4,837,038
PR_GN016362	James River Recharge Wells (Off Site)	$ 19,774,361	$ 3,954,872	$ 23,729,233
PR_GN016380	Nansemond SWIFT Facility	$ 3,089,263	$ 617,853	$ 3,707,116
PR_GN016381	Nansemond Recharge Wells	$ 318,917	$ 63,783	$ 382,700
PR_GN016390	VIP SWIFT Tertiary Preliminary Engineering	$ 4,209,555	$ 841,911	$ 5,051,466
PR_GN016391	VIP SWIFT Tertiary Site Work	$ 342,094	$ 68,419	$ 410,513
PR_GN016700	Treatment Plant Solids Handling Replacement Phase II	$ 1,633,407	$ 326,681	$ 1,960,088
PR_GN017400	Treatment Plant Dewatering Replacement Phase III	$ 3,260,000	$ 652,000	$ 3,912,000
PR_GN017900	Solids System Improvements for Army Base MHI Offline	$ 3,314,529	$ 662,906	$ 3,977,435
PR_GN018600	North Shore Galvanic Cathodic Protection Rehabilitation	$ 602,504	$ 120,501	$ 723,005
PR_GN018800	South Shore Galvanic Cathodic Protection Rehabilitation Phase II	$ 119,023	$ 23,805	$ 142,827
PR_GN018900	Pump Station Motor Control Center Replacements - Phase I	$ 1,718,100	$ 343,620	$ 2,061,720
PR_GN019200	Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating Improvements	$ 800,000	$ 160,000	$ 960,000
PR_GN019700	Treatment Plant Dewatering Improvement Phase IV	$ 342,290	$ 68,458	$ 410,748
PR_GN020100	VIP and Army Base Treatment Plant Secondary Clarifier Weir Cover Installation	$ 704,167	$ 140,833	$ 845,000
PR_JR011730	Jefferson Avenue Interceptor Force Main Replacement Phase III	$ 12,459,681	$ 2,491,936	$ 14,951,618
PR_JR013200	Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II	$ 2,757,816	$ 551,563	$ 3,309,379
PR_JR013400	James River Treatment Plant Advanced Nutrient Reduction Improvements	$ 67,081,748	$ 13,416,350	$ 80,498,097
PR_JR013410	James River Treatment Plant Outfall Modifications	$ 765,847	$ 153,169	$ 919,017
PR_JR013500	Lucas Creek Pump Station Replacement	$ 12,183,557	$ 2,436,711	$ 14,620,268
PR_JR013610	James River Treatment Plant Automation Improvements Phase I	$ 9,527,600	$ 1,905,520	$ 11,433,120
PR_JR014000	Center Avenue Force Main Replacement	$ 250,849	$ 50,170	$ 301,019
PR_JR014200	Kiln Creek Interceptor Force Main Replacement	$ 773,250	$ 154,650	$ 927,900
PR_MP013300	King William Treatment Plant Improvements Phase II	$ 7,069,576	$ 1,413,915	$ 8,483,491
PR_MP013730	Middlesex Interceptor System Program Phase II-Transmission Force Main	$ 17,402,893	$ 3,480,579	$ 20,883,472
PR_MP013810	Middlesex Interceptor System Program Phase III	$ 566,682	$ 113,336	$ 680,018
PR_MP014700	Small Communities Rehabilitation Phase IV	$ 1,749,750	$ 349,950	$ 2,099,700
PR_MP014800	Small Communities Rehabilitation Phase V	$ 409,273	$ 81,855	$ 491,128
PR_MP014900	Middle Peninsula Operations Center Locker Room and Administrative Facilities	$ 2,500	$ 500	$ 3,000
PR_MP015100	West Point Pump Station 4 (Thompson Avenue) Rehabilitation	$ 1,246,500	$ 249,300	$ 1,495,800
PR_MP015300	King William Central Crossing Pump Station Rehabilitation	$ 1,084,281	$ 216,856	$ 1,301,137
PR_MP015500	Small Communities Rehabilitation Phase VI	$ 2,306,270	$ 461,254	$ 2,767,524
PR_MP015600	West Point Treatment Plant Final Effluent Pump Station Improvements	$ 852,706	$ 170,541	$ 1,023,247
PR_MP015700	West Point Treatment Plant Secondary Clarifier Improvements	$ 1,148,500	$ 229,700	$ 1,378,200

Exhibit A
Capital Improvement Program
FY-2024 to FY-2033

Project Number	Project Name	Subtotal	Contingency	Total
PR_MP015800	King William Main Pump Station Improvements	$ 237,042	$ 47,408	$ 284,450
PR_NP010620	Suffolk Pump Station Replacement	$ 11,502,012	$ 2,300,402	$ 13,802,414
PR_NP012400	Western Branch Sewer System Gravity Improvements	$ 221,738	$ 44,348	$ 266,085
PR_NP013000	Nansemond Treatment Plant Motor Control Center Replacements	$ 1,461,613	$ 292,323	$ 1,753,935
PR_NP013820	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Ph II	$ 132,019,064	$ 26,403,813	$ 158,422,877
PR_NP014000	Wilroy Pressure Reducing Station and Off-line Storage Facility	$ 3,365,644	$ 673,129	$ 4,038,773
PR_NP014500	Nansemond Treatment Plant Regional Residuals Facility Upgrade	$ 2,334,500	$ 466,900	$ 2,801,400
PR_NP014700	Nansemond Treatment Plant Digester Capacity Upgrades	$ 18,948,606	$ 3,789,721	$ 22,738,328
PR_NP014900	Nansemond Treatment Plant Interceptors Storage Yard	$ 1,347,333	$ 269,467	$ 1,616,800
PR_NP015100	Nansemond Treatment Plant Administration Building Replacement	$ 16,960	$ 3,392	$ 20,352
PR_NP015500	Town of Dendron Discharge Force Main Replacement	$ 169,429	$ 33,886	$ 203,314
PR_SU010200	Surry Hydraulic Improvements and Interceptor Force Main	$ 917,692	$ 183,538	$ 1,101,230
PR_VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	$ 2,013,988	$ 402,798	$ 2,416,785
PR_VP014010	Ferebee Avenue Pump Station Replacement	$ 4,596,502	$ 919,300	$ 5,515,802
PR_VP014022	Sanitary Sewer Replacement 1950 – Part 2	$ 9,795,963	$ 1,959,193	$ 11,755,155
PR_VP014700	Ingleside Road Pump Station Replacement	$ 280,199	$ 56,040	$ 336,239
PR_VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	$ 742,246	$ 148,449	$ 890,695
PR_VP015410	City Park Pump Station (PS 106) Replacement	$ 2,669,691	$ 533,938	$ 3,203,629
PR_VP015420	Luxembourg Pump Station (PS 113) Replacement and Ashland Sewer Extension	$ 2,669,254	$ 533,851	$ 3,203,105
PR_VP015430	Chesapeake Boulevard Pump Station (PS 105) Replacement and Norfolk Pump Station (PS 57) Rehabilitation	$ 933,677	$ 186,735	$ 1,120,412
PR_VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	$ 2,182,414	$ 436,483	$ 2,618,897
PR_VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	$ 3,116,211	$ 623,242	$ 3,739,453
PR_VP017120	Central Norfolk Area Gravity Sewer Improvements Phase II	$ 2,531,641	$ 506,328	$ 3,037,970
PR_VP018000	Park Avenue Pump Station Replacement	$ 4,961,983	$ 992,397	$ 5,954,380
PR_VP018301	VIP Service Area I-I Reduction Phase I (PORTS)	$ 454,545	$ 90,909	$ 545,454
PR_VP018303	VIP Service Area I-I Reduction Phase III (PORTS)	$ 2,546,671	$ 509,334	$ 3,056,005
PR_VP018400	State Street Pressure Reducing Station and Offline Storage (VIP-HPP-05)	$ 427,206	$ 85,441	$ 512,647
PR_VP018500	Elizabeth River Crossing Reliability Improvements	$ 1,615,067	$ 323,013	$ 1,938,080
PR_VP018800	Virginia Initiative Plant Administration Building Renovation	$ 2,754,388	$ 550,878	$ 3,305,265
PR_VP018900	Norchester Pump Station Screening Improvements	$ 262,548	$ 52,510	$ 315,058
PR_VP019000	Colley Ave Pump Station Pump Replacement	$ 1,628,160	$ 325,632	$ 1,953,792
PR_VP019100	Virginia Initiative Plant Incinerator Burner Replacement	$ 3,110,183	$ 622,037	$ 3,732,219
PR_VP019200	Virginia Initiative Plant Motor Control Center Replacements	$ 4,875,000	$ 975,000	$ 5,850,000
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PR_WB013400	Williamsburg Treatment Plant Headworks Influent and Effluent Pipe Rehabilitation	$ 826,667	$ 165,333	$ 992,000
PR_WB013500	Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements	$ 565,167	$ 113,033	$ 678,200
PR_YR010520	Magruder Mercury Interceptor Force Main Replacement - Section B	$ 4,217,407	$ 843,481	$ 5,060,888
PR_YR010530	Magruder Mercury Interceptor Force Main Replacement - Section C	$ 118,715	$ 23,743	$ 142,457
PR_YR010900	Tabb Pressure Reducing Station and Offline Storage Facility	$ 12,045,292	$ 2,409,058	$ 14,454,350
PR_YR011900	Bethel-Poquoson Force Main Part III Replacement	$ 135,244	$ 27,049	$ 162,292
PR_YR013900	York River System Isolation Valve Installation and Replacement	$ 3,591,017	$ 718,203	$ 4,309,220
PR_YR014000	York River Treatment Plant Administration Building Renovation	$ 4,467,334	$ 893,467	$ 5,360,800
PR_YR014300	Bethel-Poquoson Force Main Phase II (Wythe Creek Road) Replacement	$ 937,899	$ 187,580	$ 1,125,479
PR_YR014600	Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing	$ 3,064,130	$ 612,826	$ 3,676,956
PR_YR014800	York River Treatment Plant Primary Clarifier Influent and Effluent Pipe Rehabilitation	$ 6,670,766	$ 1,334,153	$ 8,004,919
PR_YR014900	York River DEMON Upgrades	$ 331,250	$ 66,250	$ 397,500
	Total	**$ 758,434,112**	**$ 151,686,822**	**$ 910,120,934**

Exhibit A
Capital Improvement Program
FY-2024 to FY-2033

Project Number	Project Name	Subtotal	Contingency	Total
PR_AB010500	Section W Force Main Replacement	$ 1,446,990	$ 289,398	$ 1,736,389
PR_AB011900	Army Base Treatment Plant Administration Building Renovation (2021)	$ 2,111,807	$ 422,361	$ 2,534,169
PR_AB012100	Army Base Treatment Plant Generator Control Replacement	$ 625,918	$ 125,184	$ 751,102
PR_AD012600	Central Environmental Laboratory Expansion and Rehabilitation	$ 2,673,625	$ 534,725	$ 3,208,350
PR_AT011520	Shipps Corner Pressure Reducing Station Modifications	$ 356,114	$ 71,223	$ 427,337
PR_AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	$ 5,884,088	$ 1,176,818	$ 7,060,905
PR_AT012920	Atlantic Treatment Plant Access Road Extension	$ 1,219,565	$ 243,913	$ 1,463,478
PR_AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	$ 5,041,279	$ 1,008,256	$ 6,049,535
PR_AT013010	Washington District Pump Station Replacement	$ 3,548,747	$ 709,749	$ 4,258,496
PR_AT013110	South Norfolk Area Gravity Sewer Improvements, Phase II	$ 2,861,358	$ 572,272	$ 3,433,630
PR_AT013700	Atlantic Trunk Interceptor Force Main Relocation (VDOT Laskin Road Betterment)	$ 143,100	$ 28,620	$ 171,720
PR_AT014600	Kempsville Interceptor Force Main Replacement - Phase I	$ 138,280	$ 27,656	$ 165,936
PR_AT015200	Cedar Road Interceptor Force Main Replacement Phase I	$ 166,972	$ 33,394	$ 200,366
PR_AT015400	Doziers Corner Pump Station Replacement	$ 660,000	$ 132,000	$ 792,000
PR_AT015500	Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements	$ 1,788,592	$ 357,718	$ 2,146,311
PR_AT015800	Atlantic Treatment Plant Liquid Side Odor Evaluation and Improvements	$ 1,785,571	$ 357,114	$ 2,142,686
PR_AT015900	Atlantic Treatment Plant Gravity Belt Thickener and Pre-Dewatering Polymer Improvements	$ 197,932	$ 39,586	$ 237,519
PR_AT016000	Atlantic Treatment Plant Odor and Solids Improvements 2023	$ 3,090,917	$ 618,183	$ 3,709,100
PR_AT016300	Cedar Road Interceptor Force Main Replacement Phase II	$ 943,851	$ 188,770	$ 1,132,621
PR_BH013020	Willard Avenue Pump Station Replacement	$ 8,868,982	$ 1,773,796	$ 10,642,778
PR_BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	$ 847,953	$ 169,591	$ 1,017,544
PR_BH014220	Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II	$ 7,224,370	$ 1,444,874	$ 8,669,244
PR_BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	$ 1,547,240	$ 309,448	$ 1,856,689
PR_BH014600	46th Street Diversion Sewer Rehabilitation Replacement	$ 4,332,208	$ 866,442	$ 5,198,650
PR_BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	$ 1,233,740	$ 246,748	$ 1,480,488
PR_BH015700	Boat Harbor Treatment Plant Pump Station Conversion	$ 42,172,662	$ 8,434,532	$ 50,607,194
PR_BH015710	Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)	$ 73,480,902	$ 14,696,180	$ 88,177,083
PR_BH015720	Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)	$ 20,409,827	$ 4,081,965	$ 24,491,792
PR_BH015900	Bloxoms Corner Force Main Replacement	$ 1,741,701	$ 348,340	$ 2,090,041
PR_CE011300	Birchwood Trunk 24-Inch and 30-Inch Force Main at Independence Boulevard Replacement Phase II	$ 1,418,684	$ 283,737	$ 1,702,421
PR_CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	$ 1,370,595	$ 274,119	$ 1,644,714
PR_CE011810	Chesapeake-Elizabeth Treatment Plant Decommissioning	$ 5,031,107	$ 1,006,221	$ 6,037,328
PR_CE011841	Oceana Off-line Storage Facility Land Acquisition	$ 554,412	$ 110,882	$ 665,294
PR_CE011850	Atlantic Service Area Automated Diversion Facilities Phase I	$ 200,000	$ 40,000	$ 240,000
PR_CE012100	Witchduck Road Interceptor Force Main Improvements	$ 114,480	$ 22,896	$ 137,376
PR_ES010100	Eastern Shore Infrastructure Improvements - Transmission Force Main Phase I	$ 22,700,685	$ 4,540,137	$ 27,240,822
PR_ES010300	Onancock Treatment Plant Administration Building Upgrade	$ 214,167	$ 42,833	$ 257,000
PR_ES010500	Chincoteague Treatment Plant	$ 4,337,653	$ 867,531	$ 5,205,184
PR_ES010800	Onancock Treatment Plant Solids Handling Improvements	$ 2,295,159	$ 459,032	$ 2,754,191
PR_GN013300	Treatment Plant Grease Handling Facilities	$ 153,767	$ 30,753	$ 184,520
PR_GN014900	North Shore Gravity Sewer Improvements Phase I	$ 8,885,669	$ 1,777,134	$ 10,662,803
PR_GN015000	South Shore Gravity Sewer Improvements Phase I	$ 308,333	$ 61,667	$ 370,000
PR_GN015300	Interceptor System Valve Improvements Phase I	$ 1,381,542	$ 276,308	$ 1,657,850
PR_GN015400	South Shore Aerial Crossing Improvements	$ 258,889	$ 51,778	$ 310,667
PR_GN015800	North Shore Automated Diversion Facilities	$ 1,683,451	$ 336,690	$ 2,020,141
PR_GN016320	Program Management of SWIFT Full Scale Implementation	$ 7,197,856	$ 1,439,571	$ 8,637,427
PR_GN016346	Boat Harbor Transmission Force Main Land Acquisition	$ 5,482,351	$ 1,096,470	$ 6,578,821
PR_GN016360	James River SWIFT Facility	$ 47,893,969	$ 9,578,794	$ 57,472,763
PR_GN016361	James River Recharge Wells (On Site)	$ 4,030,865	$ 806,173	$ 4,837,038
PR_GN016362	James River Recharge Wells (Off Site)	$ 19,774,361	$ 3,954,872	$ 23,729,233
PR_GN016380	Nansemond SWIFT Facility	$ 3,089,263	$ 617,853	$ 3,707,116
PR_GN016381	Nansemond Recharge Wells	$ 318,917	$ 63,783	$ 382,700
PR_GN016390	VIP SWIFT Tertiary Preliminary Engineering	$ 4,209,555	$ 841,911	$ 5,051,466
PR_GN016391	VIP SWIFT Tertiary Site Work	$ 342,094	$ 68,419	$ 410,513
PR_GN016700	Treatment Plant Solids Handling Replacement Phase II	$ 1,633,407	$ 326,681	$ 1,960,088
PR_GN017400	Treatment Plant Dewatering Replacement Phase III	$ 3,260,000	$ 652,000	$ 3,912,000
PR_GN017900	Solids System Improvements for Army Base MHI Offline	$ 3,314,529	$ 662,906	$ 3,977,435
PR_GN018600	North Shore Galvanic Cathodic Protection Rehabilitation	$ 602,504	$ 120,501	$ 723,005
PR_GN018800	South Shore Galvanic Cathodic Protection Rehabilitation Phase II	$ 119,023	$ 23,805	$ 142,827
PR_GN018900	Pump Station Motor Control Center Replacements - Phase I	$ 1,718,100	$ 343,620	$ 2,061,720
PR_GN019200	Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating Improvements	$ 800,000	$ 160,000	$ 960,000
PR_GN019700	Treatment Plant Dewatering Improvement Phase IV	$ 342,290	$ 68,458	$ 410,748
PR_GN020100	VIP and Army Base Treatment Plant Secondary Clarifier Weir Cover Installation	$ 704,167	$ 140,833	$ 845,000
PR_JR011730	Jefferson Avenue Interceptor Force Main Replacement Phase III	$ 12,459,681	$ 2,491,936	$ 14,951,618
PR_JR013200	Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II	$ 2,757,816	$ 551,563	$ 3,309,379
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Resource: Jill Morrison

AGENDA ITEM 6. – May 23, 2023

Subject: Delegation of Authority to General Manager in Connection with Delinquent Accounts Resolution

Recommended Action: Adopt the resolution.

Brief: In accordance with HRSD's Revenue Policy, staff monitors the collection of all accounts to ensure they are efficiently administered and collected as soon as reasonably practical. Some accounts require additional measures to ensure their collection inclusive account holder notifications, service disconnection and legal action as necessary.

To help ensure the efficient operation of the Finance Department, a resolution of the Commission delegating to the General Manager the authority to take the necessary actions to collect delinquent customer accounts as provided in Section 25 of the Enabling Act including but not limited to initiating legal action is attached.

This resolution was prepared by HRSD's legal counsel.

RESOLUTION
Delegation of Authority to General Manager in Connection with Delinquent Customer Accounts

WHEREAS, pursuant to Section 25 of the Enabling Act, the Commission of Hampton Roads Sanitation District (HRSD) has the authority to take necessary actions to collect delinquent customer accounts including but not limited to initiating legal action; and

WHEREAS, pursuant to Section 10(q) of the Enabling Act, the HRSD Commission has the authority to delegate the performance of authorized actions to its officers, agents and employees; and

WHEREAS, in order to promote efficiency in the daily operations of HRSD, the HRSD Commission desires to delegate to the General Manager the authority to take the necessary actions to collect delinquent customer accounts as provided in Section 25 of the Enabling Act including but not limited to initiating legal action;

NOW, THEREFORE, BE IT RESOLVED, by the HRSD Commission on the 23rd day of May, 2023 that the General Manager for Hampton Roads Sanitation District is hereby authorized to take necessary action to collect delinquent customer accounts as provided in Section 25 of the Enabling Act including but not limited to initiating legal action.

The undersigned further certifies that the foregoing has been properly approved and adopted in accordance with all applicable requirements of the HRSD Commission.

_____
Stephen C. Rodriguez
HRSD Commission Chair

Resource: Jill Morrison

AGENDA ITEM 7. – May 23, 2023

Subject: Revenue Policy
Commission Adopted Policy

Recommended Action: Approve the revised Revenue Policy

Brief: The purpose of the Revenue Policy is to ensure there is sufficient revenue to support direct and indirect operating, capital and reserves and current and future debt service costs. The Policy covers such areas as the basis of charges, how charges are determined, how rates are approved, revenue forecasts, collections and an overview of the rate model. It was orignally adopted in May 2017 and last revised in May 2021.

Other than the following changes, the changes to the Policy are generally administrative sand claryfying in nature:

- Added new Nutrient Credit Rates to recover the marginal operational cost to treat pollutants and the cost associated with the capacity of assets consumed to treat the pollutants. The rates include an Operational Nutrient Credit Rate designed to recover the marginal operating cost to treat a pound of Total Nitrogen, Total Phosphorus, and/or Total Suspended Solids (collectively Nutrients). The rates also include an Asset Nutrient Credit Rate which is a one-time charged based on the proportional share of capital assets consumed to treat Nutrients. This rate is similar in concept to HRSD's existing Facility Charges.

- Added provisions that clarify that HRSD will pursue collections for delinquent customer accounts in accordance with the Enabling Act or other relevant governing law as appropriate. The policy also delgates the authority to pursue collections delinquent accounts to the General Manager.

The attached Policy was reviewed by staff and HRSD's counsel.

1.0 Purpose and Need

The purpose of this revenue policy is to ensure that there is sufficient revenue to support direct and indirect operating, capital, reserves and current and future debt service costs.

2.0 Definitions

2.1 Domestic Quality Wastewater. Defined in accordance with HRSD's Domestic Wastewater Survey that specifies the primary pollutants and the corresponding concentration levels for domestic wastewater.

2.2 Domestic Quality Wastewater Survey. A sampling evaluation of wastewater to define Domestic Quality Wastewater concentrations of primary pollutants conducted in residential neighborhoods in various localities (cities/counties) served by HRSD.

2.3 Facility Charges. Charges to cover the cost of treatment and conveyance capacity consumed by new connections or redevelopment. Facility charges are applied to any sewer or sewer system discharging into HRSD facilities and any increase to existing service.

2.4 Fats, Oils, and Grease (FOG). Wastewater created from the cleaning of a grease control device (GCD) and transported and discharged to a wastewater treatment plant by conveyance other than pipelines.

2.5 Flat Rate. A constant rate applied to customer accounts in lieu of a metered based bill. The rate is based on the winter average water consumption of existing flat rate accounts as determined periodically.

2.6 Hauled Wastewater. Wastewater transported and discharged to a wastewater treatment plant by conveyance other than pipelines, excluding Fats, Oils and Grease (FOG) waste from a grease control device (GCD).

2.7 High Strength or Unusual Waste. Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Total Phosphorus (TP), and Total Kjeldahl Nitrogen (TKN) discharged waste concentrations that exceed those defined as Domestic Quality Wastewater or unusual wastes not covered by the Rate Schedule that may be considered separately and may be assigned a special rate.

2.8 HRSD Charges. Any and all charges or fees billed to customers for wastewater services provide by HRSD.

2.9 HRSD Collection System. All infrastructure conveying flow to the Interceptor System in localities where HRSD owns or operates a collection system.

2.10 HRSD Collection System Charges. Rates for HRSD Collection System operating and maintenance costs that are in addition to Wastewater Treatment Charges.

2.11 HRSD Enabling Act. The Commonwealth of Virginia 1960 Acts of the Assembly, c. 66, as amended.

2.12 HRSD Rate Schedule. Published listing of rates, fees and charges applicable for specified time frame.

2.13 Interceptor System. Larger diameter pipelines conveying flow from the collection system to the Wastewater Treatment Plant.

2.14 **NAICS Surcharge Categories.** The North American Industry Classification System (NAICS) standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

~~2.14~~2.15 Nutrient Credit Rates. *Rates established to recover the marginal operational cost to treat pollutants and the capacity of assets consumed to treat the pollutants. HRSD, as provided in its Nutrient Credit Management Policy may elect to sell these credits if it doesn't jeopardize compliance with its wasteload allocation.*

~~2.15~~2.16 **Rational Nexus Criteria.** These ensure that there is a reasonable connection between HRSD Charges and the actual cost of operating the wastewater system. These criteria ensure: (1) the charges are not arbitrary, (2) the charges are equitable, and (3) the charges are not discriminatory.

~~2.16~~2.17 **Regional Sanitary Sewer System.** All portions of the individual locality and HRSD wastewater collection and interceptor systems and appurtenances thereto.

~~2.17~~2.18 **Surcharge Rate.** Rates for High Strength or Unusual Wastes to recover costs in direct proportion to volume and pollutant concentrations. Surcharge rates are based on a marginal cost approach for the variable costs associated with the incremental costs to treat High Strength or Unusual Wastes.

~~2.18~~*2.19* **Wastewater Treatment Charges.** Charges to convey and treat Domestic Quality Wastewater that are based on billed water consumption, an effluent wastewater meter, or a Flat Rate.

~~2.19~~*2.20* **Wastewater Treatment Rate.** Rate per specified unit of measure to recover the costs of conveyance and treatment of Domestic Quality Wastewater.

~~2.20~~*2.21* **Town Wholesale Treatment Rate.** Rate paid by an incorporated town per specified unit of measure to recover the costs of conveyance and treatment of Domestic Quality Wastewater when the town does not use all HRSD facilities or need ~~all of~~*all* the services provided to a typical customer. This rate is only applicable to incorporated towns with a population less than 2,000.

3.0 Guiding Principles

3.1 General

3.1.1 To the extent feasible, HRSD is a cost recovery enterprise and supports a uniform rate structure for interception and treatment regardless of which wastewater treatment plant treats a customer's wastewater.

3.1.2 *HRSD uses the Rational Nexus Criteria as a guiding principle~~s~~ to derive its wastewater charges.*

~~3.1.2~~*3.1.3* Wastewater Treatment and Collection Charges shall not be waived. However, payment extensions may be established for the collection of HRSD Charges.

~~3.1.3~~*3.1.4* All new connections and redevelopment shall pay an equitable share for the treatment and conveyance capacity consumed by their wastewater discharge to the Regional Sanitary Sewer System.

~~3.1.4~~*3.1.5* All HRSD rates shall be reviewed and revised (if required) at least annually and approved by the Commission. Changes shall be publicly advertised in accordance with HRSD's Enabling Act and posted on HRSD's web site.

~~3.1.5~~*3.1.6* Surcharge rates are set to recover costs in direct proportion to volume and pollutant concentrations in excess of Domestic Quality Wastewater.

~~3.1.6~~*3.1.7* Facility Charges ensure that an unfair burden is not placed on existing users that would otherwise pay higher rates to expand the system to accommodate new flows and loads to HRSD's facilities. ~~HRSD uses the~~

~~Rational Nexus Criteria as one of the guiding principles to derive Facility Charges.~~

~~3.1.7~~***3.1.8*** HRSD will not depend on temporary revenues such as grants to fund operating costs. One-time temporary revenues or grants should typically be used to fund one-time expenses.

~~3.1.8~~***3.1.9*** Surcharge rates *that* are applied to non-permitted commercial facilities ~~using~~ *use* sampling data for groups of businesses that produce similar goods or services using the North American Industry Classification System (NAICS).

3.2 Basis of Charges

3.2.1 Wastewater Treatment Charges

(1) The Wastewater Treatment Rate is derived from the Rate Model, see Appendix A.

(2) Volumetric Accounts

a. Volume of water purchased by the customer (as recorded by a water meter); or,

b. Volume of effluent discharged to the sewer system (as recorded by an effluent meter)

(3) A rate based on facility use and billing period.

(4) A single family residential Flat Rate as defined herein.

(5) HRSD treatment plants are designed to treat domestic quality wastewater. Additional charges may be assessed for wastewater with qualities that differ from the current definition of Domestic Quality Wastewater.

(6) Minimum charges apply to all accounts, except as specified herein.

3.2.2 Facility Charges

(1) HRSD shall establish Facility Charges for new connections based upon the size of the water meter serving the new connection. If the locality does not offer a specific meter size, a combination meter is proposed, or another similar scenario exists, the Facility Charge may be based on a calculated meter size using the AWWA M22 Sizing Water Service Lines

and Meters manual. Additional special exceptions, including redevelopment provisions, may be outlined in the HRSD Rate Schedule.

(2) The Facility Charge for each meter size is based on the total net replacement value of all HRSD's assets, HRSD's total hydraulic capacity, and the average water consumption for each meter size.

(3) HRSD reserves the right to require Facility Charges based upon wastewater that differs from domestic quality wastewater and that consumes loading capacity in excess of capacity consumed by the equivalent volume of Domestic Quality Wastewater.

3.2.3 HRSD Collection System Rate. A rate to recover HRSD costs for maintenance and operation of HRSD owned collection systems. The rate shall be based upon the weighted average rate charged by localities within the HRSD service area for collection system operation and maintenance of locality owned collection systems. Localities that do not charge a Locality collection rate will be excluded from this calculation. The weighted average will be based on the latest population estimates provided by the Welden Cooper Center for Public Service or other Commonwealth designated demographics agency. HRSD may establish separate collection system maintenance charges for each locality within the HRSD Collection System where warranted by unique circumstances.

3.2.4 Hauled Wastewater Rate. This rate is based on five individual charges specific to Hauled Wastewater: BOD, TSS, TP, TKN and volume as derived from the HRSD Rate Model and may include applicable credits, see Appendix A, and are not subject to a minimum charge. Since waste haulers do not use the Interceptor System, those costs are excluded from the volume rate.

3.2.5 Fats, Oils, and Grease (FOG) Rate. This rate is based on five individual charges specific to FOG: BOD, TSS, TP, TKN and volume as derived from the HRSD Rate Model and may include applicable credits, see Appendix A, and are not subject to a minimum charge. Since waste haulers do not use the Interceptor System, those costs are excluded from the volume rate.

3.2.6 Town Wholesale Treatment Rate. This rate is based on HRSD's average unit costs to: (1) treat wastewater in all of its major wastewater plants, (2) transport wastewater from HRSD's member municipalities through its interceptor systems, and (3) the management, administration, and support costs applicable to these services. This charged volume is based on an effluent meter where a town discharges into the HRSD System, which will include infiltration and inflow.

3.2.7 *Nutrient Credit Rates*

(1) Operational Nutrient Credit Rate. These rates are based on the marginal operating cost to treat a pound of TN, TP and/or TSS. These costs are derived from budgeted operational expenses and vary in direct proportion to the quantity of pollutants treated (i.e., chemicals, electricity, disposal of directly related solids).

(2) Asset Nutrient Credit Rate. These rates are based on the proportional share of capital assets consumed to treat TN, TP and/or TSS.

~~3.2.6~~3.2.8 *TSS Operational and Assets Charges may not apply if TP is the driving parameter for Water Quality permitting.*

4.0 Procedures

4.1 Determining Costs Used in the HRSD Rate Model, See Appendix A.

4.1.1 The budgeted annual costs shall be used to calculate rates that will be in effect for the budget fiscal year.

4.1.2 Budgeted costs shall be loaded into a comprehensive rate model to allocate costs to applicable categories annually. This model shall allocate costs to volume and each pollutant identified in the most recent Domestic Wastewater Survey.

4.1.3 The Domestic Wastewater Survey shall be updated every five years or more frequently if permit requirements or treatment technology changes warrant revisiting.

4.2 Determining Total Wastewater Volume

The total volume of wastewater to be billed during a budget year shall be estimated based upon the water consumption trends within the HRSD service area and other information when available.

4.3 Calculating Rates

4.3.1 The model shall calculate the Wastewater Treatment Rate based on total budgeted cost divided by the estimated volume of wastewater to be billed in the fiscal year. The rate shall be expressed in dollars per hundred cubic feet or per 1,000 gallons.

4.3.2 The HRSD Rate Model shall calculate the Surcharge Rate for High Strength Waste based on the incremental cost to treat each additional pound of each pollutant in excess of the pounds of pollutants identified for Domestic Quality Wastewater in the most recent HRSD Domestic Quality Wastewater Survey. The rates shall be expressed in dollars per 100 pounds or per milligrams per liter per hundred cubic feet of wastewater.

4.3.3 Facility Charges shall be calculated by dividing the replacement cost for all HRSD facilities by HRSD's total hydraulic capacity to obtain the replacement cost per gallon. This replacement cost per gallon shall be multiplied by the estimated flow expected from new connections and redevelopment and expressed in dollars per meter size. The estimated flow is based on the average daily flows for each size water meter using actual historical data from HRSD's meter database and any additional information available.

4.3.4 Flat Rate shall be calculated by determining the average water consumption for the months of January, February, and March for all existing flat rate accounts for a 30-day period multiplied by the Wastewater Treatment Rate.

~~4.3.4~~***4.3.5*** *Nutrient Credit Asset Charges are one-time charges and shall be paid in advance of providing a credit. Nutrient Operational Charges shall be paid in advance for five years and will be based on the rate in effect at the time the credits are provided. The charge will be reassessed every five years based on the rate in effect at the time of reassessment. On a case-by-case basis, intervals other than five years may be considered to support alignment with the credit recipient's permit cycle or needs. As provided in HRSD's Nutrient Credit Management Policy, HRSD may enter into private trading or offset agreements outside of this Revenue Policy.*

~~4.3.5~~***4.3.6*** Daily Minimum shall be calculated by dividing the total labor costs (not dependent on volume of wastewater conveyed or treated) of the Operations Department by the total number of accounts' ten-year rolling average divided by 365.

~~4.3.6~~***4.3.7*** Surcharge Rates shall be calculated using moving averages using historical data to dampen the year-over-year volatility.

4.4 Implementation

4.4.1 All rates shall be approved by the Commission.

4.4.2 Rates shall be advertised for four consecutive weeks in a newspaper of general circulation within the District.

4.5 Financial Forecast

HRSD will analyze water consumption, regional economic and population data periodically to identify any trends that may impact its long-range financial forecast. HRSD will also analyze and conservatively project major expense drivers, such as construction costs, inflation, operating cost increases, and borrowing costs. The forecast should target financial metrics, across the twenty-year period, that are consistent with rating agency metrics for a strong, double-A rated credit. This approach will ensure the long-range forecast is resilient and maintains HRSD's strong financial framework.

4.6 Collections *of Customer Accounts*~~.~~

4.6.1 HRSD will monitor all collections *of customer accounts* to ensure they are equitably administered, timely and accurate. *Generally, t*~~T~~he cost of collections *of customer accounts* shall not exceed the marginal incremental revenue and it should not be a large percentage of the amount to be collected.

4.6.2 Charges shall be collected for all services rendered unless determined to be uncollectable.

4.6.3 Charges may be assessed for services received but not billed (for any reason) for a period of up to three prior years. The rate in effect in the year treatment services were provided shall be applied. If necessary, at HRSD's sole discretion, billing adjustments and/or payment plans may be established for payment of delayed billing or unbilled previous service.

4.6.4 Past due charges for services received and billed shall be pursued *in accordance with the governing statute of limitations and as allowed by law.* ~~for up to 10-years after write-off.~~

4.6.5 If a customer has past due charges on any account for services received, and establishes a new account within HRSD's service area, *the* customer will be subject to the past due charges being transferred to their active account, and collection will be pursued.

4.6.6 *HRSD shall establish criteria to pursue legal action for delinquent customer accounts, including both residential and commercial, in accordance with Section 25 of the Enabling Act and as otherwise provided by relevant governing law.*

5.0 Responsibility and Authority

5.1 The General Manager shall ensure the Commission reviews all rates annually as part of the annual budget process.

5.2 Rates may only be changed with an affirmative vote of a majority of the Commission at a legally noticed public meeting of the Commission.

5.3 The General Manager shall ensure any rate revisions are advertised and published in accordance with the HRSD Enabling Act.

5.4 The Director of Finance will present an updated Financial Forecast to the Commission and manage the update to the Rate Model on an annual basis.

~~5.4~~5.5 *The General Manager shall have the authority to initiate legal action for the collection of delinquent customer accounts as provided in Section 25 of the Enabling and noted in 4.6.6 above.*

Approved: _____ _____

~~Frederick N. Elofson~~*Stephen C. Rodriquez*
Commission Chair

Date

Attest: _____ _____

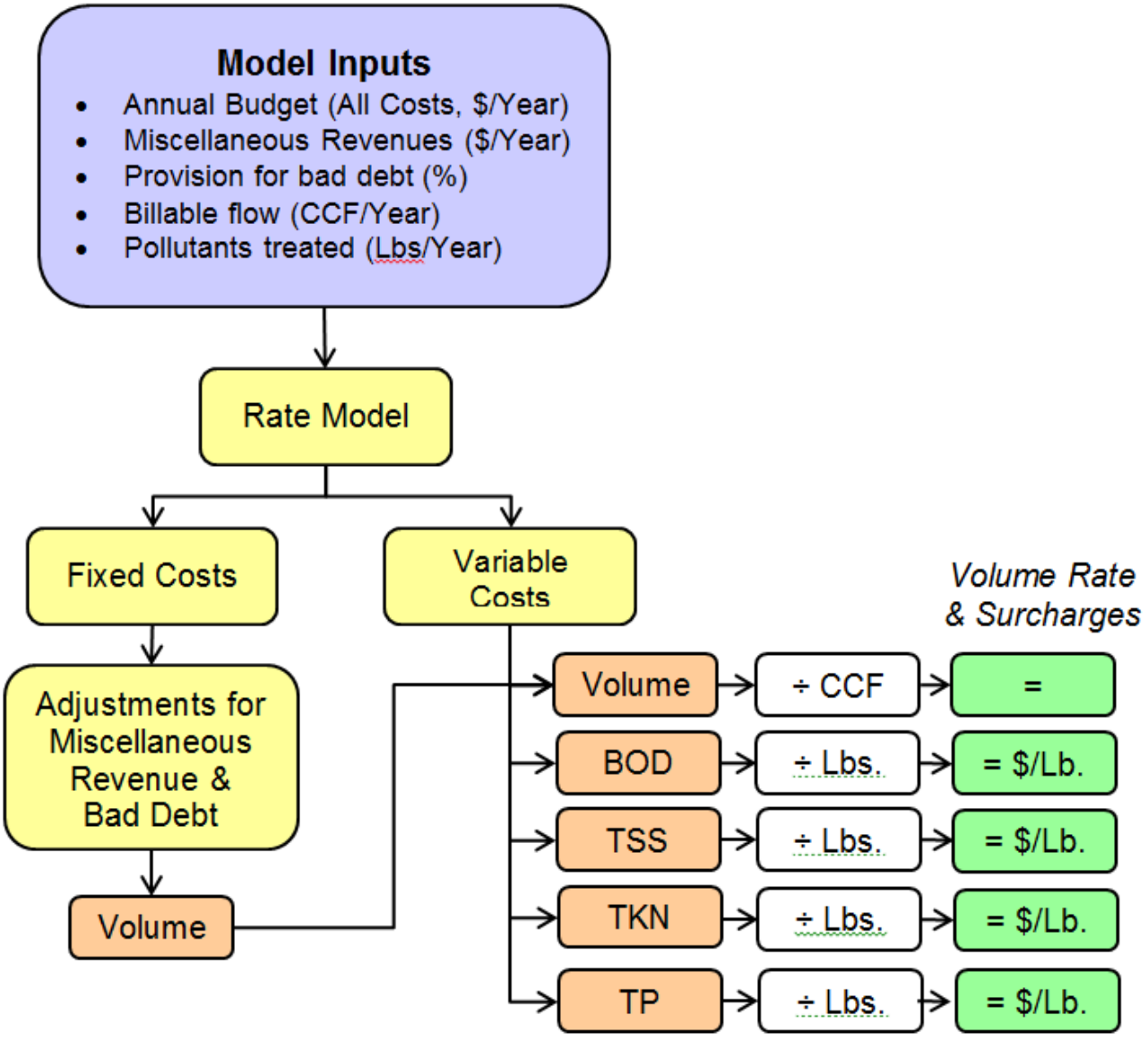
Jennifer L. Cascio
Commission Secretary

Date

1.0 HRSD's Rate Model Summary

HRSD's Rate Model uses a cost accounting process to allocate all operating costs to volume and each of four specific pollutants. The model designates each line item cost as fixed or variable. Fixed costs are those that are not influenced, in the short run, by volume or the quantity of pollutants in the wastewater being treated. These include for example, personnel costs, office, administrative, customer service, billing and collection expenses, and debt service. Conversely, variable costs are those that are affected by the volume and the amount of pollutants present; these include treatment plant expenditures for chemicals, electricity, fuel, and solids disposal. The rate model uses engineering criteria to allocate the variable costs to each of the four pollutants. Once the operating costs have been allocated, the model deducts miscellaneous revenues, includes a provision for bad debt, and derives rates for volume ($/CCF) and high strength surcharges ($/pound); the latter equates to HRSD's marginal or incremental cost attributable to treating each pollutant in excess of the amount present in typical domestic wastewater and is also presented as the equivalent $ per mg/l per 100 CF to facilitate calculation by customers. Net fixed costs and the variable costs to treat the four pollutants present in typical domestic sewage are recovered via the volume rate and surcharges.

2.0 Rate Model Schematic



Resource: Jay Bernas

AGENDA ITEM 8. – May 23, 2023

Subject: Nutrient Credit Management Policy
Commission Adopted Policy

Recommended Action: Approve the revised Nutrient Credit Management Policy.

Brief: Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual wasteload allocations (WLAs). HRSD, as a member of the Virginia Nutrient Credit Exchange Association ("Exchange"), participates in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay.

Trades can be in the form of annual, term or perpetual transfers. A permanent transfer of credits can be achieved through the transfer of allocation. Similarly, nutrient offset requirements can be accommodated through the transfer or acquisition of necessary allocation. All allocation transfers are contingent upon approval of the Virginia Department of Environmental Quality (DEQ) in accordance with the "General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia" ("General Permit").

This policy provides guidelines for HRSD's engagement in trading agreements that occur outside of the Exchange and in accordance with the rules and regulations that govern nutrient and sediment credit trading and offsets. It was orignally adopted in October 2020 and replaced two previously existing policies: HRSD's Nutrient Credit Offset Policy and HRSD Nutrient Credit Trading Policy.

The revised Policy aligns Commission review and approval of nutrient credit agreements with Commission Governance Guidelines. The following changes to "Section 5.0 Responsibility and Authority" were presented at the Commission meeting on April 25, 2023:

> The HRSD Director of Water Quality or his/her designee shall prepare a written evaluation of each trading request *for HRSD General Manager review.*
>
> ~~The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.~~
>
> *Agreements and recommendations will be presented to the HRSD Commission as needed in accordance with Commission Governance Guidelines.*

The attached Policy was reviewed by staff.

1.0 Purpose and Need

Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual wasteload allocations (WLAs). HRSD, as a member of the Virginia Nutrient Credit Exchange Association ("Exchange"), participates in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay.

Trades can be in the form of annual, term or perpetual transfers. A permanent transfer of credits can be achieved through the transfer of allocation. Similarly, nutrient offset requirements can be accommodated through the transfer or acquisition of necessary allocation. All allocation transfers are contingent upon approval of the Virginia Department of Environmental Quality (DEQ) in accordance with the "General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia" ("General Permit").

This policy provides guidelines for HRSD's engagement in trading agreements that occur outside of the Exchange and in accordance with the rules and regulations that govern nutrient and sediment credit trading and offsets.

This policy combines and replaces two existing policies: HRSD's Nutrient Credit Offset Policy and HRSD Nutrient Credit Trading Policy.

2.0 Definitions

"Agreement" means a private transaction for the trade of nutrient and sediment credits occurring outside of the Exchange. Agreements can provide for annual, term or perpetual credit trades or offset allocations.

"Credit" means the difference between (i) the wasteload allocation for a permitted facility specified as an annual mass load of the pollutant (total nitrogen (TN), total phosphorus (TP) or total suspended sediment (TSS)) and (ii) the monitored annual mass load of the pollutant (TN, TP or TSS) discharged from that facility, where clause (ii) is less than clause (i), and where the difference is adjusted by the applicable delivery factor and expressed as pounds per year of delivered total nitrogen load.

"Offset" means the voluntary transfer of a discharger's waste load allocation or a portion of the allocation to a new or expanding facility located in the same Chesapeake Bay tributary.

"*Trading*" means the voluntary exchange of credits on an annual, term or perpetual basis between existing dischargers located in the same Chesapeake Bay tributary. Perpetual trades may be made permanent through the transfer of wasteload allocation or a portion of allocation.

"Virginia Nutrient Credit Exchange Association, Inc. (Exchange)" means the organization authorized by the Virginia General Assembly to manage a nutrient trading program.

"Wasteload allocation (WLA)" means a limit or cap on the amount of nitrogen and phosphorus that public and private point sources such as wastewater facilities may discharge into the Chesapeake Bay watershed.

3.0 Guiding Principles

HRSD, because it is a member of the Exchange and has accepted Water Quality Improvement Fund grants, is obligated to provide its excess credits to the Exchange. While it has no obligation to do so, HRSD will consider entering into private trading or offset agreements if providing the allocation will not jeopardize HRSD's WLA compliance. The following factors will be considered when evaluating trading and offset requests.

A. *Protection of HRSD 's interests and preservation of its ability to meet future needs*

HRSD's WLAs must remain sufficient to satisfy the projected growth. Any WLA reduction resulting from providing credits or an offset shall not create an unacceptably greater risk of non-compliance for HRSD.

B. *Regional benefits*

Trading and offset agreements should offer regional benefits (an impact across multiple jurisdictions) and/or support regional initiatives when possible.

C. *Environmental stewardship*

The trading partner must have a strong record of environmental protection and compliance with all relevant regulations.

D. *Cost to HRSD ratepayers*

Trades and offsets should provide the region with maximum environmental benefit at the lowest net cost to our ratepayers.

E. *Location*

Jurisdictions within HRSD's service area will have priority when multiple trading/offset requests are received.

F. *Magnitude*

The number of credits or allocation provided will be the minimum necessary to meet regulatory requirements.

G. *Limitations on Use*

The credits and/or offset allocations are only available to the party designated in the Agreement. Credits or allocations are not transferrable to any other person or entity.

H. *Cost Reimbursement*

Agreements will include a requirement for reimbursement for legal and administrative costs incurred by HRSD in developing these agreements. On a case-by-case basis, HRSD may additionally require reimbursement for costs associated with the generation of credits or offsets.

4.0 Procedures

Point source dischargers seeking to enter into a trading or offset Agreement with HRSD must make a request in writing to the Chief of Technical Services.

Based on the merits of the request, HRSD staff will make a recommendation to the HRSD Commission.

The request for an annual extension of an Agreement also must be made in writing at least 90 days prior to expiration of the Agreement, evaluated by HRSD staff and approved by the HRSD Commission.

5.0 Responsibility and Authority

The HRSD Director of Water Quality or his/her designee shall prepare a written evaluation of each trading request *for HRSD General Manager review*.

~~The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.~~

Agreements and recommendations will be presented to the HRSD Commission as needed in accordance with Commission Governance Guidelines.

All regulations promulgated by the Virginia Department of Environmental Quality and procedures established by the Exchange shall be followed by HRSD in the implementation of this policy.

Approved: _____ _____

~~Frederick N. Elofson, CPA~~*Stephen C. Rodriguez*
Commission Chair

Date

Attest: _____ _____

Jennifer L. Cascio
Commission Secretary

Date

Resource: Ryan Radspinner

AGENDA ITEM 9. – May 23, 2023

Subject: Consent Decree – Proposed Minor Modifications Briefing

Recommended Action: No action is required.

Brief Description: HRSD requested several modifications to the Federal Consent Decree in late November 2022 and held a technical discussion with the DOJ, EPA, and DEQ (the 'Agencies") to discuss these requests in detail. The Agencies asked for some additional information and analysis on the requests which HRSD has since provided. On April 28, 2023, staff received notification from HRSD Counsel that the case manager for DOJ is agreeable to seeking approval for all of HRSD's requests as minor modifications. The DOJ case manager asked that HRSD provide a public briefing of the changes as early as possible.

Staff will provide a briefing during the meeting to fulfill this request.

Resource: Christel Dyer

AGENDA ITEM 10. – May 23, 2023

Subject: Atlantic Treatment Plant (ATP) Master Plan Briefing

Recommended Action: No action is required.

Brief: The purpose of this item is to inform the Commission of the ATP Master Plan, which has been ongoing over the past two years, and to seek feedback from the Commission to implement into the final plan.

HRSD hired Tetra Tech in 2021 to facilitate this Master Planning effort, which considered future and current needs and opportunities for the property. This includes accounting for potential future plant expansion, as more flows may be directed to the facility, while also ensuring that the property is protected from the effects of storms, flooding, and sea level rise by considering options such as the installation and development of wetlands, forested buffers, managed meadows, etc. The history of the property includes approximately 200 acres of the Progress Farm, which is currently used towards research for land application studies, biosolids applications and research, and stormwater monitoring. One of HRSD's goals for the property is to reduce the current actively farmed area of the Progress Farm to 20 acres. A review of potential development constraints associated with disturbance of wetlands at the property was completed in July 2021, which identified several options for potential future uses for the *Progress Farm* and discussed the positive and negative aspects of each. The options included establishment of managed meadows under the current agricultural rotation program, construction of a small solar power generating facility, creation of a single-user wetland mitigation bank, or creation of a single-user nutrient credit bank.

Led by Tetra Tech, HRSD further evaluated the site's future potential uses through three charrettes. The team focused on the benefits of the redevelopment of the site for itself and the surrounding community. The master planning effort includes internal and external stakeholder groups, which include the Naval Air Station Oceana – Dam Neck Annex, the City of Virginia Beach, local universities, Lynnhaven River Now, Ocean Lakes High School, Ocean Lakes Residential Community, The Nature Conservancy, and the U.S. Fish and Wildlife Service.

Staff will provide an overview of the ATP Master Plan. After this presentation, HRSD and Tetra Tech will develop a final Master Plan to present to the various stakeholders, with the additional plan for a future phased approach for implementation.

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AGENDA ITEM 11. – May 23, 2023

Subject: Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing Additional Appropriation and Contract Award (>$200,000)

Recommended Actions:

a. Appropriate additional funding in the amount of $2,485,223.

b. Award a contract to Bridgeman Civil, Inc. in the amount of $2,978,796.

CIP Project: YR014600

Regulatory Requirement: None

Budget	$987,000
Previous Expenditures and Encumbrances	($91,200)
Available Balance	$895,800
Proposed Contract Award to Bridgeman Civil, Inc.	($2,978,796)
Proposed Task Order to Collins Engineers, Inc.	($102,227)
Proposed Contingency	($300,000)
Project Shortage/Requested Additional Funding	($2,485,223)
Revised Total Project Authorized Funding	$3,472,223

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on March 21, 2023, and two bids were received on April 20, 2023. The bids received are listed below:

Bidder	Bid Amount
Bridgeman Civil, Inc.	$2,978,796
Tidewater Utility Construction, Inc.	$4,333,333

HRSD/Engineer Estimate: $2,573,984

The design engineer, Collins Engineers, Inc., evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder Bridgeman Civil, Inc. in the amount of $2,978,796.

Project Description: This project will replace approximately 1,600 linear feet (LF) of 20-inch prestressed concrete cylinder pipe (PCCP) and approximately 1,600 LF of 18-inch high-density polyethylene (HDPE) pipe running above the marsh adjacent to the Wythe Creek Bridge. The existing cantilever beams will be removed, and the original pile bents will be used for the replacement 20-inch HDPE pipe.

The attached Map depicts the project location.

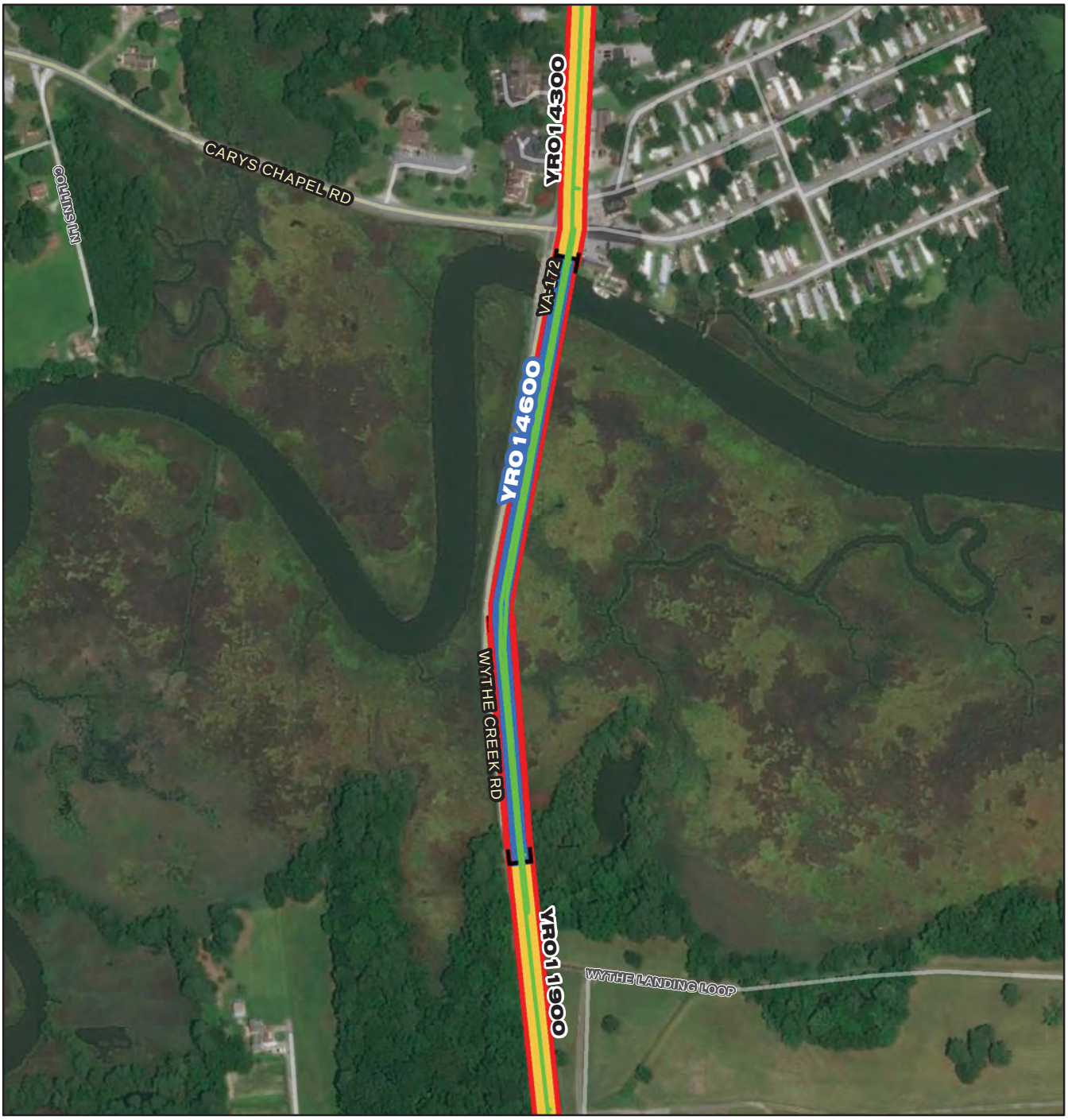
Project Justification: In 2007, a temporary 18-inch HDPE force main was installed along the existing aerial crossing of New Market Creek on Wythe Creek Road in Hampton. This pipe was installed due to the failure of the adjacent 20-inch PCCP that was installed in the 1970s. At that time,

the newer HDPE pipe was installed on the original aerial support system. This aerial support was utilized by extending wooden cantilever beams from the existing pile bents adjacent to the 20-inch PCCP. In December 2019, Collins Engineers, Inc. performed an inspection of the aerial crossing supports and found deterioration and defects along several pile supports and bents. The cantilevers have had numerous reports over the last decade and need repair again. The existing 18-inch HDPE pipe also requires the counterbalance weight of the PCCP pipeline to support the cantilever, thus requiring the old 20-inch PCCP to remain in place as long as this cantilever system exists. This project will remove the 20-inch PCCP along with the 18-inch HDPE pipelines, make repairs to the aerial crossing supports, and install a new 20-inch HDPE pipeline across Wythe Creek.

Bethel-Poquoson Force Main Phase II (Wythe Creek Road) Replacement (YR014300) and Bethel-Poquoson Force Main Part III Replacement (YR011900) CIP projects will be replacing the existing 20-inch force main to the North and South of this section of pipe. YR011900 is being performed as part of the VDOT roadway widening project. The VDOT roadwork requires the closure of the Wythe Creek Bridge for an extended period of time. This closure provides an excellent opportunity to remove the existing pipelines and install the new replacement pipe, creating a completely revitalized interceptor system in this area.

Contract Description and Analysis of Cost: This contract is for the construction services with Bridgeman Civil, Inc. The cost for this construction contract has been reviewed by Collins Engineers, Inc. and has been found to be reasonable. The proposed task order for Collins Engineers, Inc. has been reviewed and is reasonable. The fee for contract administration is 1.9% of the construction cost and the construction inspection is 1.5% of the construction cost which agrees with similar efforts for comparable projects. The construction bid amount of $2,978,796 and the fee for the construction related engineering services of $102,227 exceed the current balance available for this CIP project. A 10% construction contingency is also being requested. Therefore, the project requires $2,485,223 in additional funding. The task order value is below the threshold necessary for Commission action.

Schedule:		
	Construction	July 2023
	Project Completion	April 2024



YRO14600

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
WTP HRSD Treatment Plant
PRS HRSD Pressure Reducing Station
PS HRSD Pump Station

0 120 240 480 720 960 Feet

N
W E
S

CIP Location

YRO14600

Bethel-Poquoson Force Main Part IV Replacement-Wythe Creek Exposed Crossing

HRSD

Resource: Lauren Zuravnsky

AGENDA ITEM 12. – May 23, 2023

Subject: Boat Harbor Treatment Plant Pump Station Conversion
Additional Appropriation, Contract Award (>$200,000), Task Order (>$200,000)

Recommended Actions:

a. Appropriate additional funding in the amount of $124,473,838.

b. Award a contract to MEB General Contractors, Inc. (MEB) in the amount of $169,447,000.

c. Approve a task order with Rummel, Klepper & Kahl, LLP (RK&K) in the amount of $13,474,010.

CIP Project: BH015700

Regulatory Requirement: Integrated Plan – SWIFT

Budget	$74,718,760
Previous Expenditures and Encumbrances	($7,390,238)
Available Balance	$67,328,522
Proposed Contract Award to MEB	($169,447,000)
Other Direct Costs	($409,000)
Proposed Task Order to RK&K	($13,474,010)
Proposed Contingency	($8,472,350)
Project Shortage/Requested Additional Funding	($124,473,838)
Revised Total Project Authorized Funding	$199,192,598

Contract Status with Task Orders:	**Amount**
Original Contract with RK&K	$859,523
Total Value of Previous Task Orders	$6,311,005
Requested Task Order	$13,474,010
Total Value of All Task Orders	$19,785,015
Revised Contract Value	$20,644,538
Engineering Services as % of Construction	12%

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on February 7, 2023, and 5 bids were received on April 19, 2023. The bids received are listed below:

Bidder	**Bid Amount**
MEB General Contractors, Inc.	$169,447,000
Clark Construction LLC	$171,638,338
Oscar Renda Contracting, Inc.	$181,690,658
Kiewit Infrastructure South Co.	$224,297,598
Thalle Construction Co., Inc.	$227,905,378

HRSD/Engineer Estimate: $162,306,000

The design engineer, RK&K, evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder MEB General Contractors, Inc. in the amount of $169,447,000.

Project Description: The Boat Harbor Treatment Plant (BHTP) will be converted to a pumping station, including equalization and headworks facilities while remaining in operation for wastewater treatment during conversion. The new infrastructure will be designed to meet HRSD's resiliency standards, consider remote operation, and access in future conditions including sea level rise. This project is a critical component to the effort to close BHTP and must be completed by December 2026.The attached map depicts the project location.

Project Justification: The James River Waste Load Allocation (WLA) requires HRSD to continue reducing the mass of nutrients discharged from associated treatment plant outfalls. The planned reduction of nutrients is largely completed through implementation of the SWIFT Program. The SWIFT master planning effort has determined that advanced water treatment and recharge at BHTP has significant physical limitations including site availability and resiliency to sea level rise. In addition, a financial analysis indicates there is significant long term cost savings associated with consolidating wastewater treatment and SWIFT facilities at Nansemond Treatment Plant (NTP). This project will allow HRSD to further reduce the amount of nutrients contributed to the James River basin. Upgrades to NTP to accommodate the additional flow will be completed under a separate capital improvement project.

Contract Description and Analysis of Cost: This contract is for the construction of a structure within Terminal Avenue to intercept two gravity influent sewers, extension of the Jefferson Avenue Pump Station force main, deep screening facilities, 55 million gallons per day (MGD) intermediate pump station, grit removal facilities, 36.5 MGD transmission pump station, 2 million gallon (MG) diurnal equalization tank, and a 12 MG of off-line wet weather storage facility.

Initial appropriation amount reflects the construction estimate that was developed at the end of 2019 and was based off the conceptual approach identified in a 2017 feasibility study. This initial project scope included a 32 MGD pump station located on BHTP with 8 MG of off-line storage and considered the potential to leverage existing tanks for storage. The project was initially appropriated in October 2020 with the consideration that the design build method would be used to deliver the project. During the early development of the Basis of Design Report, it was determined that risk related to treatment and project delivery could be minimized by locating the new pump station and storage in an off-site location. This shift in project approach also required the transition to design-bid-build delivery as the scope of the project required further definition prior to a cost-based commitment by a contractor through either proposal or bid.

Multiple concurrent activities converged to result in the project scope as currently defined. Real estate acquisition defined the pump station location and site requirements. Additionally, HRSD determined that combining the proposed 4 MG off-line storage tank High Priority Project at 14th Street would reduce the risks associate with property acquisition for two separate nearby projects. Detailed design efforts by the engineering services team developed the requirements for project construction. HRSD coordinated the design efforts between multiple large capital projects to result in the new Boat Harbor – Nansemond system requirements that will achieve our nutrient management goals.

The preliminary engineering report for this project was completed in June 2022, which included a construction cost estimate for the current scope. The estimate was incorporated into HRSD's capital improvement program planning. Final design was completed in January 2023. The low bid is within 10 percent of the engineer's opinion of probable construction costs, which was submitted prior to bid opening. The contract will include lump sum and unit price items. The request for an additional

appropriation includes a contingency of approximately 5 percent of the construction contract value to accommodate potential unforeseen subsurface conditions that may be encountered in a project of this nature.

Task Order Description and Analysis of Cost: This task order will provide construction administration and inspection services and will be issued as an Amendment to an existing Professional Services Agreement with RK&K. The cost for this task order is based on an estimate of labor hours and direct costs required to execute the negotiated scope of work. The total hours budgeted are appropriate for the proposed services. The lump sum fee for construction administration services and time and materials budget for construction inspection services are reasonable when compared to other recent HRSD projects.

This project is currently included in the Virginia Clean Water Revolving Loan Fund (VCWRLF) and Water Infrastructure Finance and Innovation Act (WIFIA) programmatic loans. Additionally, the project team will apply for grant funding under the Water Quality Improvement Fund (WQIF) program.

Staff will provide a briefing during the meeting to review this large and complex project.

Schedule:		
	Construction	June 2023
	Project Completion	December 2026

N

Boat Harbor Treatment Plant Pump Station Conversion
CIP BH015700

May 2023

HRSD
Cleaning wastewater every day for a better Bay.

swift Sustainable Water Initiative for Tomorrow

AGENDA ITEM 13. – May 23, 2023

Subject: Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion and SWIFT Program Management (Boat Harbor Treatment Plant Transmission Force Main Section 1 - Subaqueous Portion
Approval of Stipulated Price and Task Order (>$200,000)

Recommended Action:

a. Approve a Stipulated Price of $141,862,737 to the Comprehensive Agreement with Garney Companies, Inc (Garney).

b. Approve a task order with AECOM in the amount of $3,571,707.

CIP Project: BH015710

Regulatory Requirement: Integrated Plan - SWIFT

Budget	$168,722,928
Previous Expenditures and Encumbrances	($146,890,458)
Available Balance	$21,832,470

CIP Project: GN016320

Regulatory Requirement: Integrated Plan – SWIFT

Budget	$80,000,000
Previous Expenditures and Encumbrances	($48,083,544)
Available Balance	$31,916,456

Contract Status:	**Amount**
Original Contract with AECOM	$5,264,440
Total Value of Previous Task Orders	$42,477,925
Requested Task Order	$3,571,707
Total Value of All Task Orders	$46,049,632
Revised Contract Value	$51,314,072
Engineering Services as % of Construction	2.5%

Project Description: This project consists of the subaqueous crossing of the James River to convey screened and de-gritted wastewater from the proposed Boat Harbor Pump Station to the Nansemond Treatment Plant (NTP). The proposed transmission force main is anticipated to be constructed by two different methods. Horizontal directional drilling will be used under the shipping channel and marine open-cut construction will be used for the remaining pipe. This project is a complex project due to the horizontal directional drill length, required permits, stakeholder coordination, and unique aspects associated with permitting and conducting work in the James River.

The SWIFT Full Scale Implementation Program (FSIP) team manages the delivery of the advanced water treatment facilities to take HRSD's already highly treated wastewater and produce SWIFT water. The Program Management team is also delivering conveyance, wastewater treatment plant improvements, and other such projects to support full scale SWIFT implementation. The Program Management team will implement the processes, procedures, and systems needed to design, procure, construct, permit, manage, and integrate the new SWIFT related assets.

Project Justification: The James River Waste Load Allocation (WLA) requires HRSD to continue reducing the mass of nutrients discharged from associated treatment plant outfalls. The planned reduction of nutrients is largely completed through implementation of the SWIFT program. The SWIFT master planning effort has determined that advanced water treatment and injection at Boat Harbor has significant physical limitations including site availability and resiliency to sea level rise. In addition, a financial analysis indicates there is significant long term cost savings associated with consolidating wastewater treatment and SWIFT facilities at the NTP. This project will allow HRSD to further reduce the amount of nutrients contributed to the James River basin. Upgrades to the NTP to accommodate the additional flow will be completed under a separate capital improvement project. The attached map depicts the project location.

Stipulated Price Description and Analysis of Cost: This project is being implemented through the Design-Build delivery method. On April 26, 2022, Commission approved a Comprehensive Agreement with Garney with a Contract Cost Limit (CCL) of $144,309,720. The CCL was based on the Basis of Design Report (BODR), Garney's Technical Proposal, and alternates accepted by HRSD via a Proposal Amendment. Over the last year, Garney and HRSD have worked together to advance to approximately 60 percent design completion and finalize requirements with the relevant regulatory agencies. Changes to the project have resulted in a credit to the project of $2,446,983, which is reflected in the new contract amount of $141,862,737. The changes include modifications to the scope related to regulatory agency requirements, HRSD requested changes in valving and added protection of the force main, additions to site work resulting from negotiations with property owners, escalation of HDPE pipe costs, and a change in force main alignment in the river to accommodate a longer horizontal directional drill while avoiding leased oyster grounds.

Detailed cost estimates were prepared by Garney and provided to HRSD. This documentation was reviewed by HRSD and HRSD's Owner's Consultant, AECOM. The proposed costs and credits were found to be reasonable for the associated changes. Staff recommends that the change order be issued to modify the comprehensive Agreement to reflect the new Stipulated Price.

Task Order Description and Analysis of Cost: This task order will provide Owner's Consultant Services During Construction (OCSDC) for this design-build project. Owner's consultant services are intended to provide support to HRSD by engaging a variety of field and office professionals to be a key part of the Owner's team. Due to the complexity and size of the project, the OCSDC team will provide on-site observation, frequent review of the design-builder's quality plans, safety plans, schedule updates, and progress documentation. The OCSDC team will also provide technical and Subject Matter Expert support for HRSD's review of specific submittals, payment applications, claims, and change management discussions, as needed. As the design-builder submits installation and product data, the OCSDC team will support HRSD staff by providing initial completeness reviews. The duration of this task order aligns with the project's construction schedule.

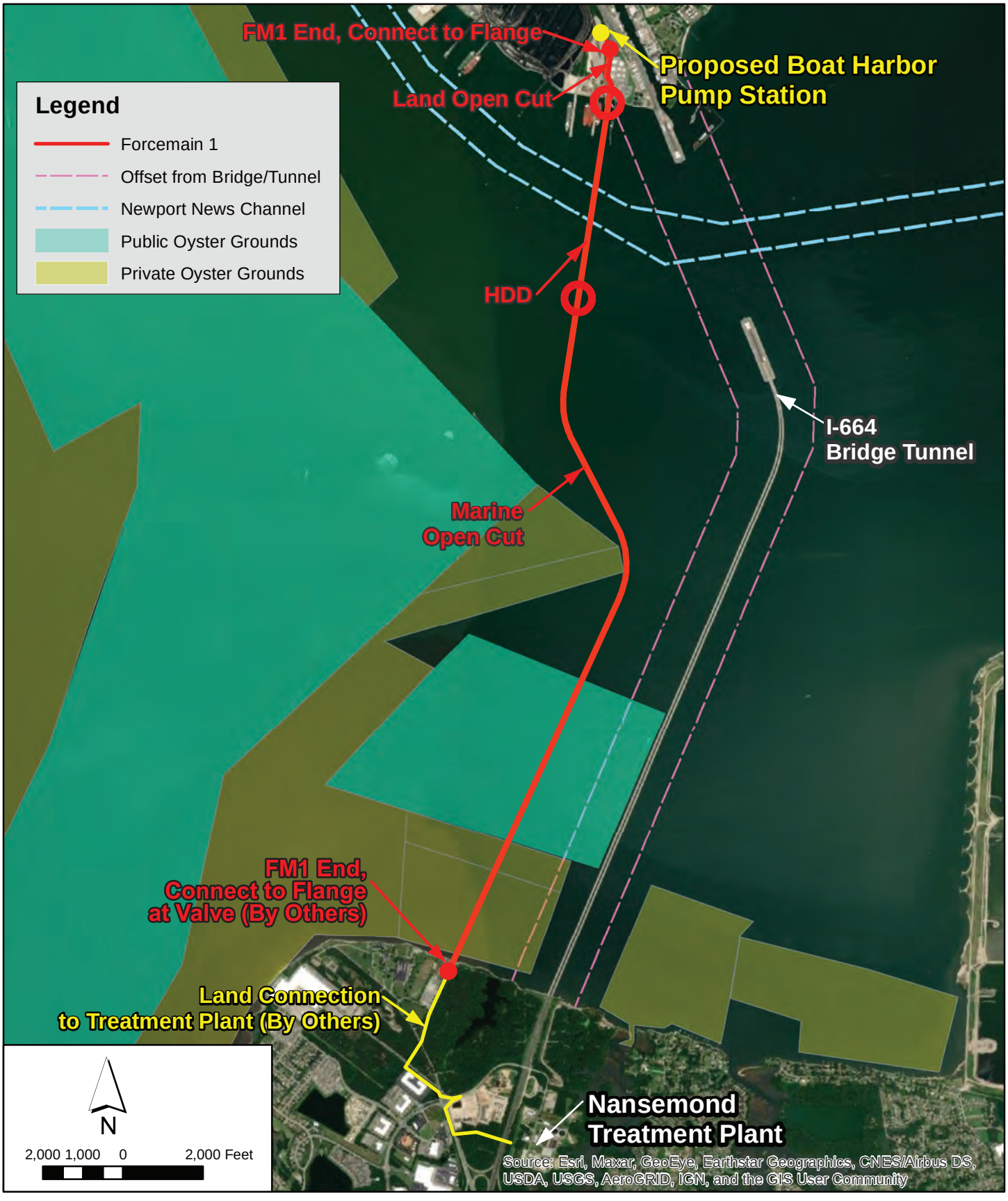
The cost for this task order is based on a detailed, negotiated scope of work for OCSDC services and will be billed on a Time & Materials basis. The budget estimate for the total scope of work was developed on an annual basis in relationship to the expected construction activities for each year. The description of tasks and associated effort (staff hours) per year are reasonable considering the size and complexity of the project and the support requested by HRSD. The budget rates used to develop the estimate align with the rate structure within the Professional Services Agreement with AECOM for SWIFT FSIP, as approved for FY2023. The budget rates were escalated annually to reflect the nearly three-year duration of the scope of services. Actual rates will be subject to approval under the Agreement annually. The ratio of OCSDC fees to the contract cost limit (2.5 percent) compares well to other Owner Consultant support fees approved for HRSD SWIFT design build projects at this stage (approval of Stipulated Price). Previous HRSD SWIFT design build projects had

Owner Consultant services fees for construction ranging from 1.7 percent to 3.5 percent of the contract value.

This project is currently included in the Virginia Clean Water Revolving Loan Fund (VCWRLF) and Water Infrastructure Finance and Innovation Act (WIFIA) programmatic loan. Additionally, the project team will submit an application for grant funding under the Water Quality Improvement Fund (WQIF) program.

Staff will provide a briefing during the meeting to review this large and complex project.

Schedule:	Stipulated Price	May 2023
	Substantial Completion	June 2025
	Project Completion	July 2025



HRSD

Boat Harbor Treatment Plant Transmission Force Main Section 1 Subaqueous Portion (BH015710)

Project Location

DRAWING NO 1

SHEET 1

DATE May 1, 2023

AGENDA ITEM 14. – May 23, 2023

Subject: Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Additional Appropriation, Contract Change Order (>25%)

Recommended Actions:

a. Appropriate additional funding in the amount of $4,033,137.

b. Approve a change order to the contract with Garney Companies, Inc. (Garney) in the amount of $3,920,000.

CIP Project: ES010100

Regulatory Requirement: None

Budget	$38,556,468
Previous Expenditures and Encumbrances	($37,169,605)
Available Balance	$1,386,863
Proposed Change Order No. 5 to Garney	($3,920,000)
Proposed Contingency	($1,500,000)
Project Shortage/Requested Additional Funding	($4,033,137)
Revised Total Project Authorized Funding	$42,589,605

Contract Status with Change Orders:	**Amount**	**Cumulative % of Contract**
Original Contract (Stipulated Price) for Garney	$22,961,728	
Total Value of Previous Change Orders	$11,175,087	48.67%
Requested Change Order	$3,920,000	
Total Value of All Change Orders	$15,095,087	65.74%
Revised Contract Value	$38,056,815	

Time (Additional Calendar Days)		0

Project Description: This project is a Design-Build project with Garney who have teamed up with the Engineering firm of AECOM to install approximately 26 miles of 4-inch, 6-inch, 10-inch and 12-inch diameter pipelines along the Railway right-of-way and along Wachapreague Road all on the Eastern Shore of Virginia. The project will also construct three wastewater pumping stations in the Towns of Nassawadox, Exmore and Onancock.

Project Justification: This project will provide service to the Eastern Shore for the Towns of Nassawadox, Exmore, Accomac, and will serve the County Courthouse complex for Accomack. The pipelines will primarily be in the Railway right-of-way. A 6-inch pipeline will be installed 2-miles from the pump station site in the Town of Wachapreague. The attached maps depict the project location.

Change Order Description and Analysis of Cost: This change order includes the design and construction of a new package pump station, collection system (consisting of 17 grinder pump stations and approximately 3,500 linear feet of 4-inch and small force main), and transmission force main (approximately 9,800 LF of 6-inch force main) serving the Town of Wachapreague that will convey wastewater to the new transmission force main system.

There was an extensive review of the scope and cost by HRSD for this change order and the additional funding for all other costs associated with the additional work being performed under the current phase of the contract to serve the Town of Wachapreague.

This project is currently included in the Virginia Clean Water Revolving Loan Fund (VCWRLF) programmatic loan and American Recue Plan Act (ARPA) Sewer Collection System (SCS) Program. The contract change order will be reimbursed by the Town of Wachapreague to HRSD.

Schedule:	Construction	May 2022
	Project Completion	October 2024


Wachapreague
Wachapreague Force Main Project Extents
Legend
Proposed sewer force main
Proposed HRSD Wachapreague pump station
General eastern limit of Wachapreague FM project extents
General western limit of Wachapreague project extents
624
180
Ole Rd
Wachapreague Rd
Grace Independent Methodist Church
821
Curtis St
Custis St
Liberty St
Church St
Lee St
Brooklyn Ave
Bunting Point
Sea Breeze Wy
Powellton Ave
Old Finney Rd
Teasers Fishermans Lodge
Bradfords Neck Rd
West St
Pearl St
High St
South St
Bayview Ave
Wachapreague
N
Google Earth
2000 ft


Wachapreague
Wachapreague Collection system project Extents
Legend
Proposed HRSD Wachapreague sewer pump station site
General northern limit of Wachapreague collection system project extents
Proposed low pressure collection main
Proposed grinder pump location (Typical of 17)
General southern limit of Wachapreague collection system project extents
Administration Building-VIMS Eastern Shore Laboratory
Seawater Research Lab
Seaside Ecotours
Riverview Ave
Brooklyn Ave
Atlantic Ave
Custis St
Lee St
Paul St
Powellton Ave
Ice Plant Rd
Church St
High St
Powelton Presbyterian Church (1881)
Ocean View United Methodist Church
Wachapreague Town Marina
Main St
Wachapreague General Store and Cafe
Wachapreague Inn
Island House Restaurant & Marina
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Google Earth
600 ft
N

Resource: Bruce Husselbee

AGENDA ITEM 15. – May 23, 2023

Subject: Middlesex Collection System – Cooks Corner
Additional Appropriation

Recommended Actions: Appropriate additional funding in the amount of $792,196.

CIP Project: MP013500

Regulatory Requirement: None

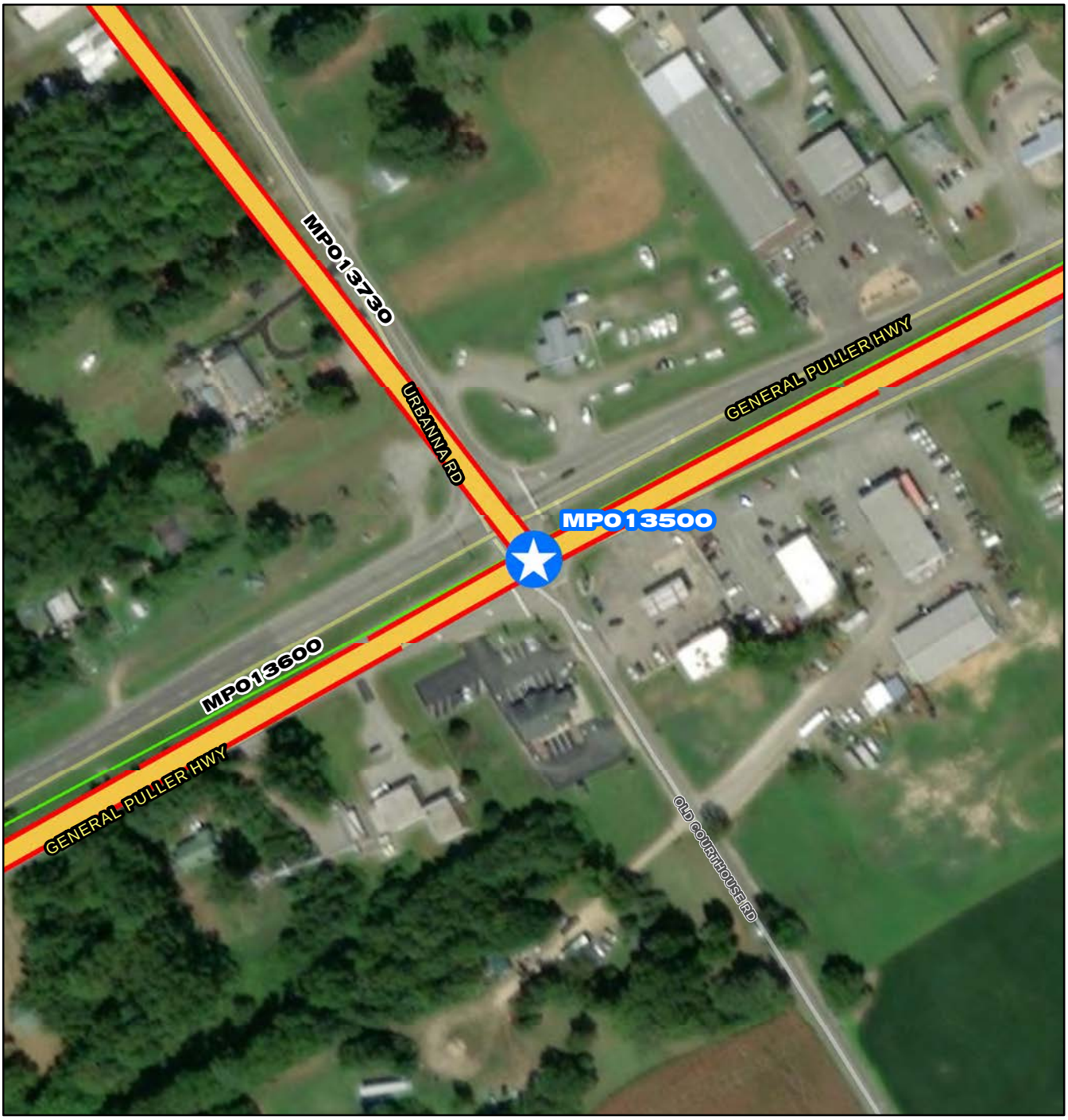
Budget	$4,614,369
Previous Expenditures and Encumbrances	($4,424,631)
Available Balance	$189,738
Proposed Change Order No. 2 to Tidewater Utilities	($705,876)
Proposed Task Order to Bowman Consulting	($126,058)
Proposed Contingency	($150,000)
Project Shortage/Requested Additional Funding	($792,196)
Revised Total Project Authorized Funding	$5,406,565

Project Description: This project consists of a wastewater collection system to convey wastewater from the Cook's Corner service area to the planned Middlesex Interceptor System. The collection system will consist of approximately 3,200 linear feet of gravity sewer, a submersible pump station, and 1,100 linear feet of force main. The attached map depicts the project location.

Project Justification: Middlesex County has secured funding for the revitalization of Cook's Corner including a Vibrant Communities Initiative Grant and an Industrial Revitalization Fund Grant. The Industrial Revitalization Fund Grant was awarded in August 2018 and entails completing the revitalization in 18 months. Providing sanitary sewer service to the area is a requirement of these grants. The Memorandum of Agreement between the Hampton Roads Sanitation District and Middlesex County for cost sharing of sewer system projects outlines that HRSD will manage the design and construction of collection system projects on behalf of Middlesex County. The "Project Design" section of the agreement states "All costs incurred by HRSD related to the collection system of any such project shall be reimbursed by the project funds once financing is secured by the County for construction of the collection system." The "Construction" section of the agreement states that "all costs associated with construction, inspection, and administration related to the collection system portion of the project shall be included in the project cost and reimbursed to HRSD by the County".

Funding Description and Analysis of Cost: The cost for this change order is based on cost proposals provided by Tidewater Utilities and is currently being negotiated. The change order is based on unforeseen delays and conflicts that were not known during design. The current percentage of the original proposed change order is 19%. The proposed task order for Bowman Consulting is to cover additional construction inspection due to delays from unforeseen conditions. A $150,000 construction contingency is also being requested to cover any unforeseen conditions. Therefore, the project requires $742,196 in additional funding. The proposed changes have been reviewed with County staff and the needed final approval will be presented to the County of Middlesex Board of Supervisors on June 6. Both the change order and task order are below the thresholds necessary for Commission action.

Schedule: Project Completion October 2023



MP013500

- 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
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 55 110 220 330 440 Feet

MP013500

Middlesex Collection System-Cooks Corner

HRSD

N
W E
S

CIP Location

Middlesex County

AGENDA ITEM 16. – May 23, 2023

Subject: Onancock Treatment Plant Solids Handling Improvements
Initial Appropriation, and Task Order (>$200,000)

Recommended Actions:

a. Appropriate total project funding in the amount of $8,358,027.

b. Approve a task order with Hazen and Sawyer in the amount of $1,141,097.

CIP Project: ES010800

Regulatory Requirement: None

Contract Status with Task Orders:	Amount
Original Contract with Hazen and Sawyer	$0
Requested Task Order	$1,141,097
Total Value of All Task Orders	$1,141,097
Revised Contract Value	$1,141,097
Engineering Services as % of Construction	16.7%

Project Description: This project will utilize the completed Preliminary Engineering Report for the Eastern Shore Infrastructure Improvements – Interim Plan Improvements (ES010000) and carry this project through design and construction. This project will include the construction of a new 100,000-gallon aerobic digester with coarse bubble aeration and associated infrastructure, new belt filter press with polymer feed system and cake storage, new surface wasting system, and yard piping upgrades. This project will also incorporate a new control system for the entire plant.

Project Justification: The existing solids handling components have reached their end of useful life. The equipment being utilized cannot keep up with the existing solids accumulating in the plant and will require periodic contracted dewatering to alleviate treatment strain. Flows to the Onancock Treatment Plant are expected to double by FY 2025 and this will greatly exacerbate this problem.

Funding Description: The total cost for this project is estimated at $8,358,027 and is based on a Class 5 cost estimate.

Task Order Description: This task order will provide design and preconstruction phase services for the Onancock Treatment Plant Solids Handling Improvements.

Analysis of Cost: The cost for this task order is based on the number of hours anticipated to complete this effort and the hourly rates agreed upon in the General Engineering Services annual services contract. The task order amount is in agreement with other efforts of similar size and complexity.

Schedule:

Design	June 2023
Bid	March 2024
Construction	June 2024
Project Completion	September 2025

AGENDA ITEM 17. – May 23, 2023

Subject: Larchmont Area Sanitary Sewer Improvements - Hanover Avenue Pump Station
Real Estate Acquisition – Fee Simple Interest
933 Hanover Avenue and 936 Cambridge Place, Norfolk

Recommended Action: Approve the purchase of two abutting, vacant parcels (+/- 0.38 acres), located at 933 Hanover Avenue and 936 Cambridge Place in Norfolk and associated acquisition costs of $545,000 with the David Mantz Living Trust (Seller), and authorize the General Manager to execute an agreement (still under negotiation) and related acquisition documents, together with such changes, modifications and deletions as the General Manager may deem necessary.

CIP Project: VP015320

Regulatory Requirement: Rehab Action Plan Phase 2 (2025 Completion)

Budget	$38,734,000
Previous Expenditures and Encumbrances	($9,867,993)
Available Balance	$28,866,007

Project Description: This project involves rehabilitation of three existing Pump Stations (PS), the design and construction of three new pump stations, and the design and construction of approximately 1,300 linear feet of 6-inch force main and approximately 5,000 linear feet of 8-inch and 10-inch gravity mains and appurtenances. The three rehabilitated pump stations include Powhatan Avenue PS #122, Richmond Crescent PS #124, and Jamestown Crescent PS #142. The new infrastructure will replace (a) one existing City of Norfolk PS: Walnut Hill Street PS #113, (b) HRSD's Monroe Place PS #114, (c) HRSD's Hanover Avenue PS #141, and (d) associated gravity and force mains.

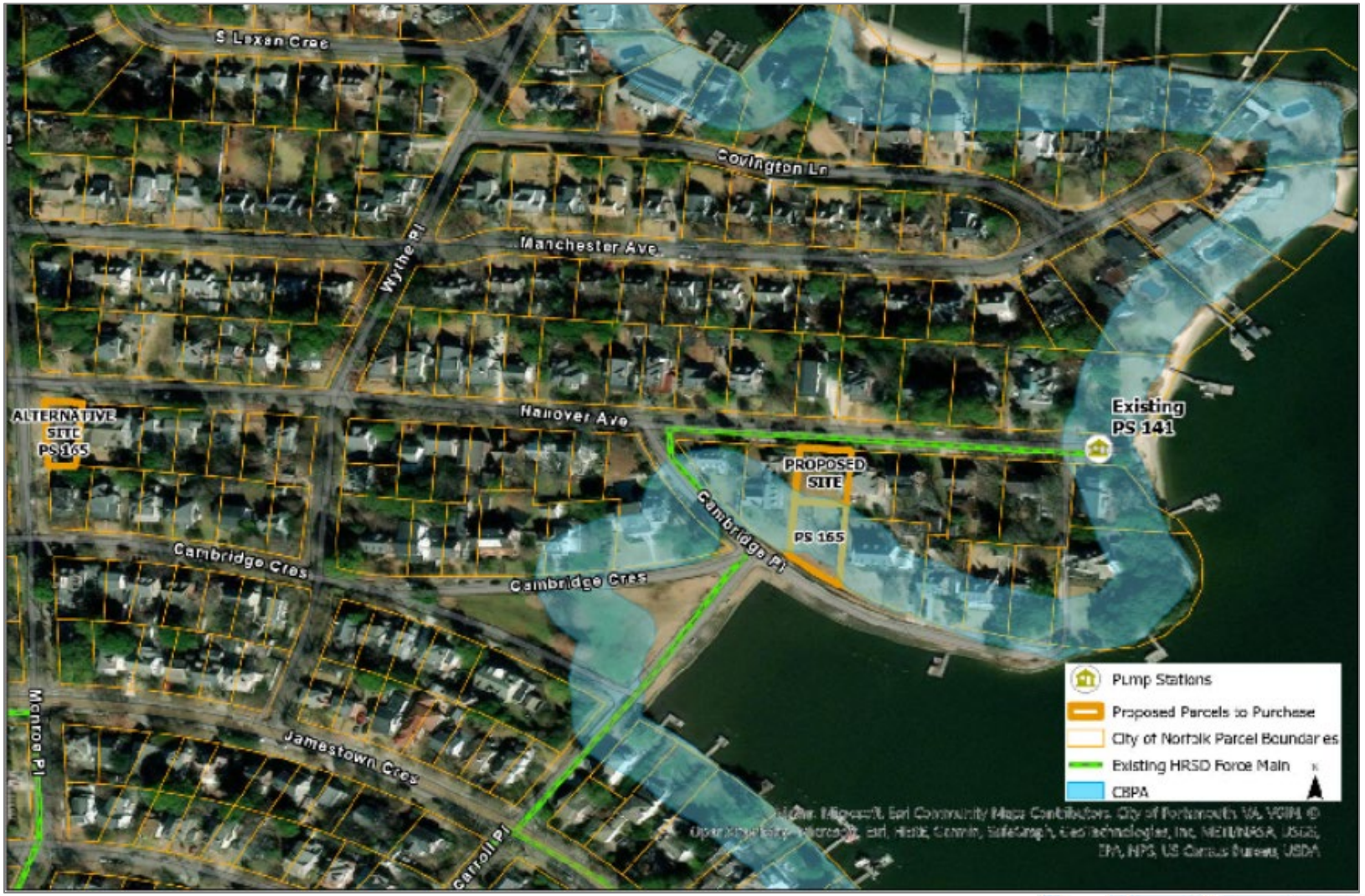
Project Justification: This project was identified as part of a condition assessment program to address aging infrastructure concerns related to structural, electrical, and pump performance operations. These efforts will help mitigate the risks from tidal flooding during wet weather conditions and from sea level rise due to climate change. HRSD and City of Norfolk (City) jointly funded a comprehensive sanitary sewer master plan for the Larchmont sanitary sewer service area that encompassed pump station facilities and gravity collection systems associated with these pumping facilities. Elements of the project identified under the VIP-R10 in HRSD's EPA Rehabilitation Action Plan Phase 2 will need to reach Substantial Completion by May 5, 2025.

Acquisition Details: This acquisition will provide property for the location of the replacement Hanover Avenue Pump Station site. HRSD will acquire two abutting, vacant parcels, currently listed for sale by the same owner and who will only sell these two parcels as a bundle. HRSD will construct the new pump station on the parcel located closest to Hanover Avenue, and the second parcel located closest to Cambridge Place will be utilized during construction activities. This site is large enough to retain a portion of the existing tree-lined buffer area and to install additional fast growing decorative vegetation cover. These parcels are conveniently located near the existing pump station which will help minimize construction activities by reducing the length of the pipeline route through the neighborhood therefore reducing the overall project cost. A general site visit and desktop review of the property did not indicate any known environmental issues. Staff has been reaching out to the immediate neighbors to discuss elements of the project and our desire to be a good neighbor. This acquisition of fee simple property requires Commission approval per HRSD's Policy and Guidelines.

Agreement Description: A draft Agreement between HRSD and David Mantz Living Trust was reviewed by HRSD staff and real estate legal counsel. Due to time constraints, a final agreement is still under negotiation with the current property owner. The maps depict the Project Vicinity and proposed Pump Station site.

Analysis of Cost: The cost for this fee simple acquisition is based on an MAI appraisal by Dove Valuation Services, LLC. The total cost is the result of a negotiated settlement with the property owner and anticipated closing within 30 days.

PROJECT VICINITY MAP



LOCATION MAP

933Hanover Avenue and 936 Cambridge Place

Resource: Bruce Husselbee

AGENDA ITEM 18. – May 23, 2023

Subject: Capital Improvement Program (CIP)
Quarterly Update

Recommended 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 will provide a briefing describing the status of the CIP, financial projections, projects of significance and other issues affecting the program.

Resource: Jay Bernas

AGENDA ITEM 19. – May 24, 2022

Subject: Operations & Nominations (O&N) Committee Appointment

Recommended Action: Chair to appoint an O&N Committee to recommend nominations for Chair and Vice-Chair of the Commission for the coming year and to review certain Commission Adopted Policies.

Brief: The Commission is required by the Enabling Act to elect a chair and vice-chair each year. The election of officers is normally held in June, and the new officers assume their duties in July.

The Chair customarily appoints an O&N Committee to nominate Commission officers for the coming year. The Committee will also review the HRSD Commission Governance Guidelines, Remote Participation and Ethics policies. Commissioners Levenston and Glenn served on the committee last year.

Resource: Jay Bernas

AGENDA ITEM 20. – May 23, 2023

Subject: Unfinished Business

Resource: Jay Bernas

AGENDA ITEM 21. – May 23, 2023

Subject: New Business

Resource: Commission Chair

AGENDA ITEM 22. – May 23, 2023

Subject: Commissioner Comments

Resource: Jay Bernas

AGENDA ITEM 23. – May 23, 2023

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

(6) Operations

(7) Talent Management

(8) Water Quality

(9) Wastewater Surveillance Data

(10) Report of Internal Audit Activities

(11) Family and Medical Leave Act Internal Audit

b. Strategic Planning Metrics Summary

May 14, 2023

Re: General Manager's Report

Dear Commissioners:

HRSD's Wastewater Surveillance Program was featured on National Public Radio (NPR) on April 24, "Tracking health threats, one sewage sample at a time." Staff did a great job representing HRSD and highlighting the innovative work we do.

The Director of Water Quality and I attended Water Week in Washington DC on April 25-26, 2023, and had the opportunity to meet with staffers from Senators Kaine and Warner's and Congressman Bobby Scott's offices. The key topics were permanent funding for the Low-Income Household Water Assistance Program (LIHWAP), per- and polyfluoroalkyl substances (PFAS) legislation, and continued infrastructure funding.

Senators Kaine and Warner's respective offices notified us that our proposed Congressionally Directed Spending (CDS) for the Eastern Shore passed the first stage. We understand that they received three to four times the number of requests from the previous year, so we are delighted to make the first cut.

To update you on the Great Bridge Locks break, on April 24, South Shore Interceptors worked closely with the City of Chesapeake and were able to connect the lone pump station to an active part of the interceptor. This was the pump station that was being pump and hauled since it was connected to the dead side of the damaged force main that had to be valved off following the line break.

The Low-Income Household Water Assistance Program (LIHWAP) continues to assist more customers with more than $6 million applied to over 10,000 accounts. We understand that Virginia is close to expending their funding allocation and staff are working on a national level to lobby for continued funding of this important program.

Staff have engaged the U.S. Department of Homeland Security to perform a number of physical and cyber security assessments to improve and enhance our existing security.

The highlights of April's activities are below. The detailed version is in the attached monthly reports.

A. **Treatment Compliance and System Operations:** There was one Sanitary Sewer Overflow (SSO) this month due to a significant rainfall event. This SSO occurred at North Avenue Pump Station (PS) in Newport News on April 30 with a total estimated volume of 7,050 gallons lost.

B. **Water Quality:** No civil penalties were issued by the Pretreatment and Pollution (P3) Division in April. There were 18 odor complaints from Ocean Lakes neighbors due to the land application of biosolids to the Progress Farm, which was last performed in 2017. This land application is part of a national study we are conducting in conjunction with EPA, Purdue and others to understand the fate and transport of PFAS in biosolids. These complaints have since subsided as the odors have abated.

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

1. Held a grievance meeting with an employee
2. Attended a meeting with HRSD's Insurance adjusters and attorneys on the Great Bridge Locks break
3. Visited the Atlantic Treatment Plant during the biosolids application on the Progress Farm
4. Attended a meeting on the proposed short-term odor control solutions for the Atlantic Treatment Plant

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

1. Attended the Hampton Roads Planning District Commission meeting on April 20 as they received unanimous approval for sending a letter of support to our Congressional delegation in support of LIHWAP
2. Attended the monthly Director of Utilities meeting
3. Provided a tour of the SWIFT Research Center to Suffolk Planning Commissioner, Ollie Creekmore
4. Met with EPA Deputy Administrator Radhika Fox as part of the Water Agency Leaders Alliance
5. Met with York County Administrator Neil Morgan on HRSD/County-related issues
6. Met with HDR Inc.'s new water leadership team

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you in person in Virginia Beach at 9 am on Tuesday, May 23, 2023**.

Respectfully submitted,

Jay Bernas, P.E.
General Manager

TO: General Manager

FROM: Director of Communications

SUBJECT: Monthly Report for April 2023

DATE: May 10, 2023

A. Publicity and Promotion

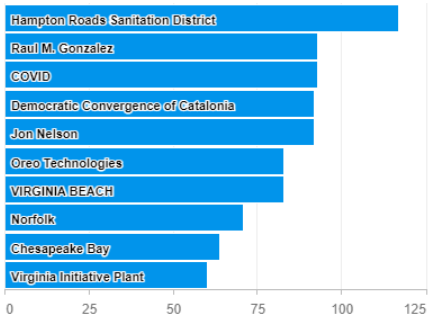
1. HRSD and/or SWIFT were mentioned or featured in six news stories or media/social media mentions. Topics included:

   a. Environmental Protection Agency (EPA) recognition award for Innovative Financing
   b. Accomack Board authorizing agreement with HRSD
   c. National Public Radio story about HRSD COVID wastewater surveillance
   d. HRSD mentioned in story about Portsmouth Condominium Association utility bill payment issues

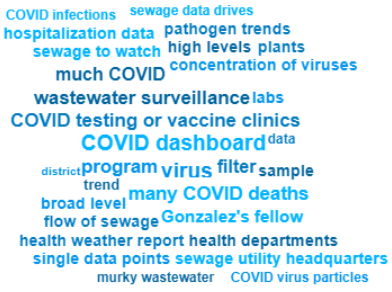
2. Analysis of media coverage

What are the top entities and keywords?

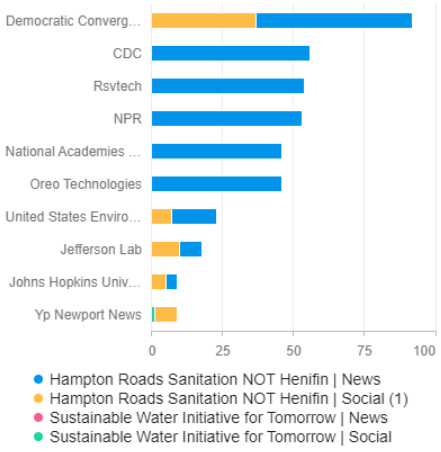
Top Entities



Top Keywords



Top Organizations



What is the top performing news content?

Top Article by Reach

NPR
Editorial | US | Apr 22 · 5:01 PM

< Wastewater surveillance could be a new way to track trends for illnesses like COVID

HUANG: Gonzalez runs the wastewater surveillance program at the **Hampton Roads Sanitation District**. It's a sewage treatment operation based ....

Social Echo 18 0 0
45.7M Reach Neutral

Top Article by Reach and Volume

NPR · By, Pien Huang, ,, Meredith Rizzo
Editorial | US | Apr 24 · 5:19 AM

Tracking health threats, one sewage sample at a time

... flow of sewage. Gonzalez runs the wastewater surveillance program at the **Hampton Roads Sanitation District**, a Virginia Beach, Va., sewa...

Social Echo 292 53 5
45.7M Reach Neutral

Top Article by Social Echo

NPR · By, Pien Huang, ,, Meredith Rizzo
Editorial | US | Apr 24 · 5:19 AM

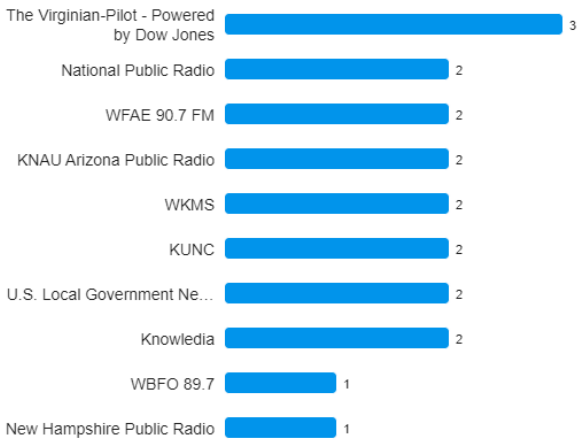
Tracking health threats, one sewage sample at a time

... flow of sewage. Gonzalez runs the wastewater surveillance program at the **Hampton Roads Sanitation District**, a Virginia Beach, Va., sewa...

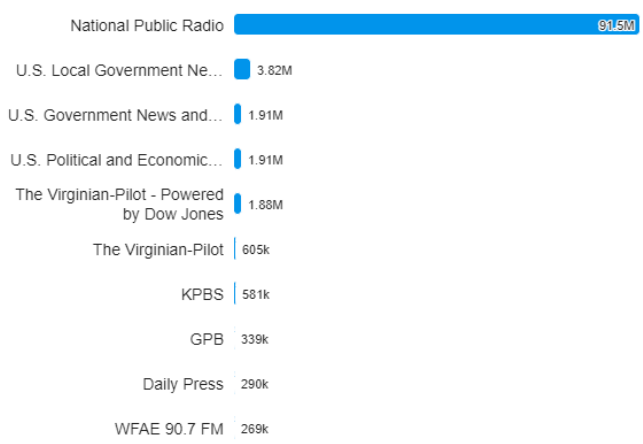
Social Echo 292 53 5
45.7M Reach Neutral

What are the top publishers?

Top Publications by Volume

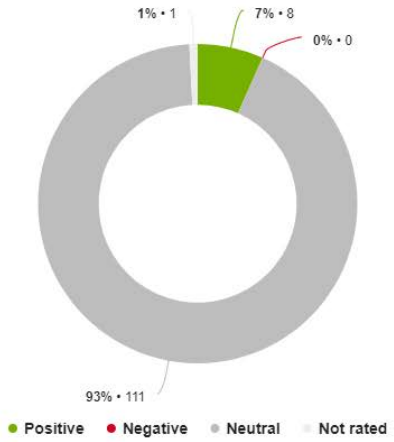


Top Publications by Reach

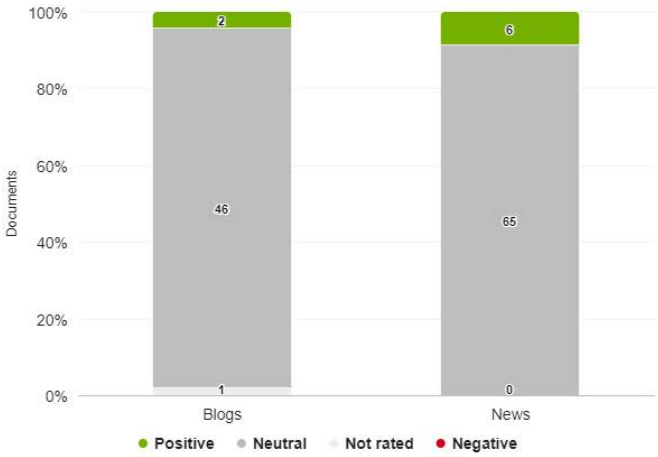


How favorable is the content?

Sentiment Share of Voice

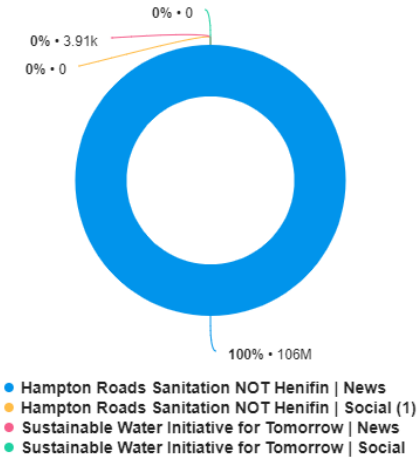


Sentiment by Source Type

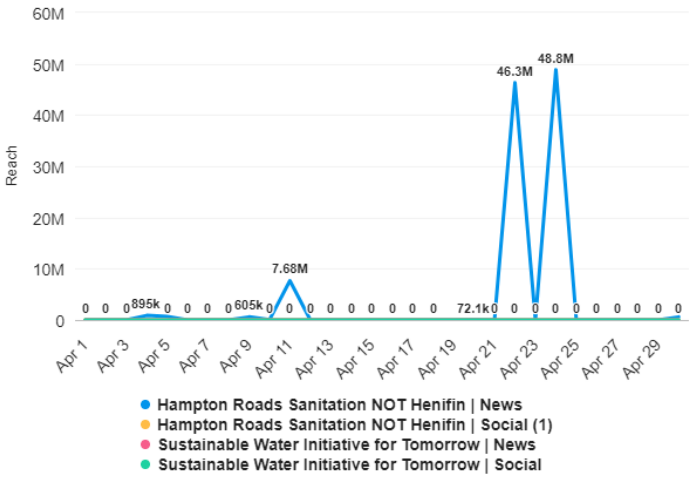


What is the potential reach?

Share of Voice by Reach



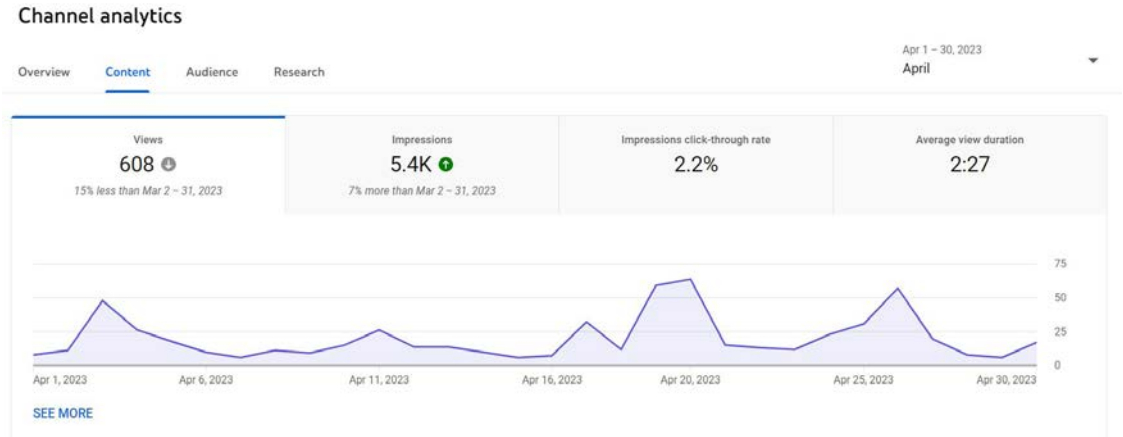
Potential News Reach



B. Social Media and Online Engagement

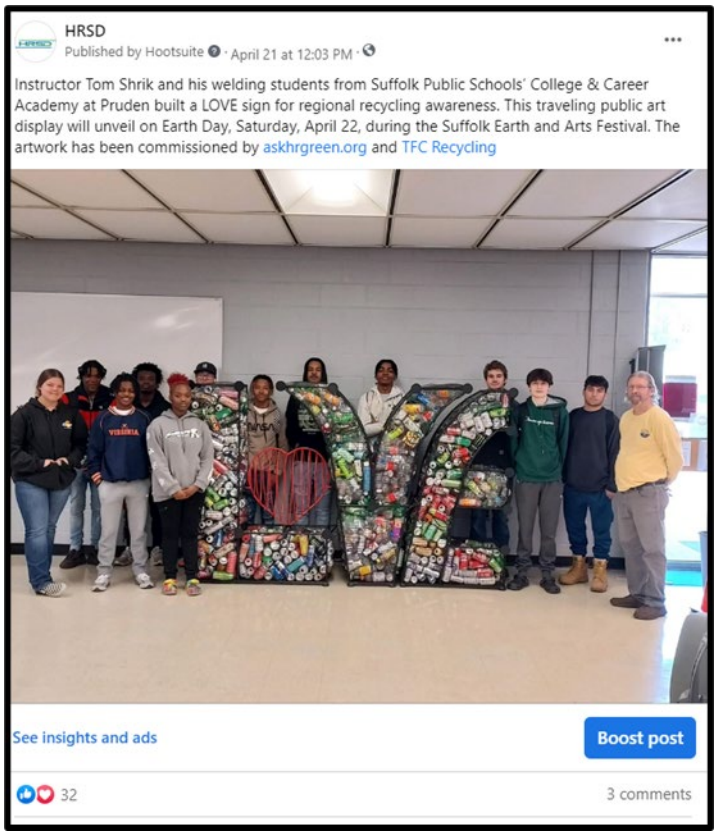
1. Metrics – Facebook, Twitter and LinkedIn

2. YouTube

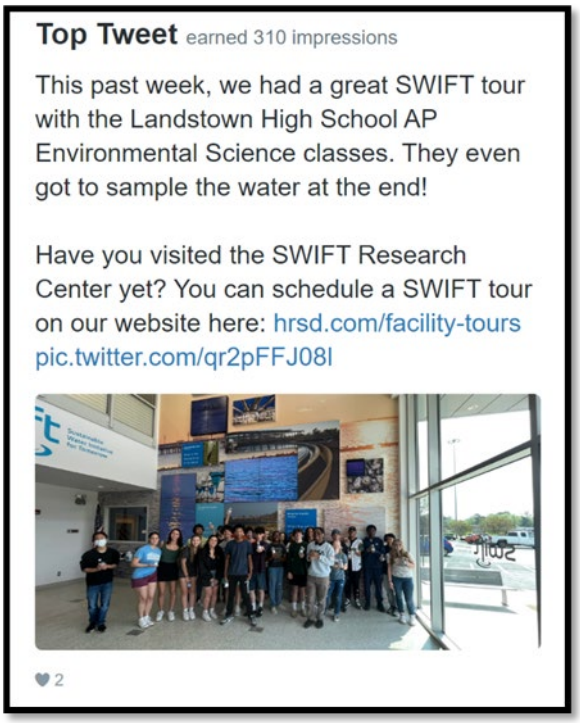


3. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post



b. Top Tweet



c. Top YouTube Videos
- The Wastewater Treatment Process (298 views)
- SWIFT Research Center: What is the Potomac Aquifer (92 views)
- What is Asset Management (30 views)
- HRSD Employee Testimonials - Robert (24 views)
- HRSD Opening of Woodstock Park Partnership with Virginia Beach (20 views)

4. Website and Social Media Impressions and Visits

a. Facebook:
- 9,424 page impressions
- 6,252 post impressions reaching 5,935 users
- Facebook Engagement of 242 (211 reactions, 20 shares, and 11 comments)

b. Twitter:
- 2,076 tweet impressions
- 349profile visits
- 6 mentions

c. HRSD.com/SWIFTVA.com: 1,193 page visits

d. LinkedIn Impressions:
- 7,880 page impressions
- 5,260 post impressions

e. YouTube: 608 views

f. Next Door unique impressions: 18,131 post impressions from 13 targeted neighborhood postings and one region-wide posting shared with 570,552 residents

g. Blog Posts: (1) Here's Exactly How to Make Your Spring Cleaning More Sustainable

h. Construction Project Page Visits – 2,501 total visits (not including direct visits from home page, broken down as follows:

- 2,049 visits to individual pages
- 452 to the status page

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

1. News Releases: 1

2. Traffic Advisories: 1

3. Construction Notices and/or notices to neighbors: 11

4. Advertisements: 0

5. Project Notices: 10 (via door hangings and email reaching 319 residents)

6. Project/Community Meetings: 1 (Presentation to Newport News Lion's Club on current construction impacts)

7. New Project Web Pages: 1 Kiln Creek/Patrick Henry Mall Area Sewer Pipe Replacement

8. New Project Videos: 0

D. Special Projects and Highlights

1. Director, Chief of Treatment and Atlantic Treatment Plant staff hosted and participated in the quarterly Roundtable meeting to provide updates to the Odor Control projects and other plant improvements and to hear community concerns and comments.
2. Director attended the Hampton Roads Media Council Meeting.
3. Director attended the HRPDC Regional Public Information Officer (PIO) Subcommittee meeting.
4. Director participated in the Hampton Public Schools Job Shadowing event.
5. Director and customer care staff met with representatives from James City County Service Authority to assist with their billing communication plan and strategy for upcoming billing changes.

E. Internal Communications

1. Director participated in the following internal meetings and events:

    a. Infrastructure Week planning meetings
    b. SWIFT Community Commitment Plan Steering Committee meeting
    c. Security Update meetings
    d. Bi-weekly GM briefings
    e. HRSD security assessment meeting
    f. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and HRSD QST meetings

2. Director also conducted biweekly Communications department status meetings and weekly team and one-on-one check-in meetings.

3. Staff attended 15 project progress and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities: 47 (40 virtual, 7 in-person)

   a. Self-guided SWIFT Virtual Tours – 40 views (analytics specify number of times "Take a Tour" button was selected)
   b. 04/04/2023 – SWIFT Tour | 4 attendees
   c. 04/06/2023 – SWIFT Tour, Landstown High School | 30 students
   d. 04/13/2023 – SWIFT Tour, Cape Henry Collegiate | 12 students
   e. 04/19/2023 – SWIFT Tour, Air Force Earth Day | 10 attendees
   f. 04/22/2023 – Virginia Beach Earth Day | 1,000 attendees
   g. 04/24/2023 – St. Helena Elementary School, classroom activity | 40 students
   h. 04/27/2023 – Norfolk Naval Shipyard presentation | 200 attendees

2. Number of Community Partners: 5

   a. Cape Henry Collegiate School
   b. City of Norfolk Public Schools
   c. City of Virginia Beach Public Schools
   d. Norfolk Naval Shipyard
   e. U.S. Air Force

3. Additional Activities Coordinated by Communications Department: 13

   a. 04/03/2023 - Tour of Virginia Initiative Treatment Plant for Norfolk Sister Cities
   b. 04/06/2023 – Lakeview Elementary School Career Day
   c. 04/10/2023 -- SWIFT Technical Tour NASA
   d. 04/13/2023 -- Lab Tour Cape Henry
   e. 04/19/2023 -- St. Patrick's Earth Day
   f. 04/21/2023 -- VIP Tour
   g. 04/22/2023 -- Earth Day Touch a Truck
   h. 04/24/2023 -- SWIFT Technical Tour USGS
   i. 04/27/2023 -- VIP Tour Princess Anne High School
   j. 04/28/2023 -- VIP Tour Princess Anne High School
   k. 04/28/2023 -- White Oaks Elementary School Egg Drop
   l. 04/28/2023 -- Ghent Elementary STEM Day
   m. 04/28/2023 -- William Cooper Elementary School

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	April 2023
M-1.4a	Total Training Hours per Full Time Employee (4) - Current Month	Hours / #FTE	2.5
M-1.4b	Total Training Hours per Full Time Employee (4) - Cumulative Fiscal Year-to-Date	Hours / #FTE	10.35
M-5.2	Educational and Outreach Events	Number	47

Item #	Strategic Planning Measure	Unit	April 2023
M-5.3	Number of Community Partners	Number	5

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for April 2023

DATE: May 10, 2023

A. General

1. Capital Improvement Program (CIP) spending for the ninth month of Fiscal Year (FY) 2023 was above the planned spending target.

CIP Spending ($M):

	Current Period	FYTD
Actual	37.50	241.54
Plan	34.25	288.25

2. The creation of a Project Management Office (PMO) was suggested as part of the Financial Stewardship Priority Area in the recently approved Strategic Plan. The PMO is not a physical space, but a way of doing business that will bring best practices to HRSD's Capital Improvement Program (CIP). Due to the size and complexity of implementing HRSD's CIP, even small improvements to our project delivery effort can result in significant dividends. We will create an internal team to manage this effort and report back to the HRSD Leadership Team. This internal team will include members of the Engineering, Finance, and Operations Departments. An initial step will be to benchmark ourselves against other large utilities to find best practices in all aspects of project delivery. As HRSD's CIP continues to increase in size, more formal business processes are needed to assure we are delivering CIP projects that are focused on budget, schedule, and quality. One area of concern already noted is to find ways for our consultants to better estimate construction costs. This is just one of many areas to be explored over the three-year duration for this Strategic Plan priority.

B. Asset Management Division

1. Staff are assessing buried plant piping as part of the treatment plant condition inspections. This assessment has included various technologies based on pipe material, depth, accessibility, and other considerations. Piping upstream and down of the headworks facility at each plant has been a focus. This area was chosen since high levels of hydrogen sulfide gas are often found at these locations. This gas often results in internal corrosion of the impacted pipeline. Another reason for choosing this location is the common observation that a single pipe is typically used above and below these structures. This single pipe causes redundancy concerns and limits the ability to repair or rehabilitate without the installation of costly bypass systems. Four treatment plants were assessed in April with plans to assess more locations later this summer.

2. One important Management, Operations and Maintenance (MOM) Program requirement is to conduct annual inspections of critical force main segments located near drinking water reservoirs. Failure of a pipe segment in these areas could cause significant harm,

so frequent inspections are warranted. A recent inspection of a segment of the Holland Road Interceptor Force Main was conducted in Suffolk. This force main pipe is located near the Portsmouth-owned Lake Kilby. Results of the inspection indicate no deficiencies at this time. The annual MOM requirement is to inspect a minimum of 2,400 linear feet of pipe located within 500 feet of a drinking water reservoir.

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

1. Design continues on the Middlesex Transmission Force Main Phase II project. Coordination with Gloucester County is underway to address downstream capacity concerns. Final property acquisitions, regulatory approvals, and site plan review are underway prior to advertisement for bids. The project should be advertised for construction later this summer.

2. Design of the Wilroy Road Pressure Reducing Station and Offline Storage Tank project continues. Internal design reviews are underway and an architectural rendering has been developed for the new facility. Design efforts will continue over the next several months with input from the Construction Manager (Crowder Construction). The design work should be complete in early 2024.

3. The study for a Regional Granular Activated Carbon Reactivation Facility continues. This study will consider the feasibility to build and operate this facility to reactivate the carbon used as part of the SWIFT treatment process. This study will analyze both the volume of carbon to be reactivated and a potential location for this facility. A return on investment analysis will also consider the cost effectiveness of HRSD providing this service versus outsourcing back to the material manufacturer. Another option is to provide this facility for use by other regional water purveyors that might install activated carbon treatment in the future. The study will be completed later this year and will give direction on the feasibility of this concept for possible inclusion in next year's CIP.

4. An Industry Outreach presentation was made on April 25 to discuss the proposed Virginia Initiative Plant SWIFT project. Approximately 165 people attended the virtual presentation. Topics of discussion included the potential scope of the work, design and construction opportunities and project delivery methods under consideration. After the meeting, a survey was sent to each participant to gather further input related to the proposed project.

D. Planning & Analysis Division

1. Staff began developing a regional plan to address the sewer needs in Southern Chesapeake. A number of Sewer Service Area Expansion requests have been made in the last few years which will impact HRSD's existing infrastructure and the need to expand service in this area. By developing a more comprehensive plan for this developing area, we should be able to provide better long-term service and more effectively plan for future CIP projects.

2. The effort to replace the existing Records Management System continues. The selected software vendor (Adept from Synergis) is conducting testing and a simulation of the proposed environment. A test migration of limited data is planned for May with a full

implementation in July. This software system will provide staff members access to project-related documents and the ability to redline changes as new field information is available.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 5

   a. 04/03/2023 – Staff hosted a tour of the SWIFT Research Center for The Newport News Sister Cities delegation from Greifswald, Germany.

   b. 04/08/2023 – Staff member served as a guest lecturer on Project Delivery for a Senior Design Level Civil Engineering Class at Old Dominion University.

   c. 04/18/2023 – Staff participated in a Career Day Event with Hampton Public Schools.

   d. 04/27/2023 – Staff participated in an Earth Day Event discussing “What to Flush” at the Norfolk Naval Shipyard.

   e. 04/28/2023 – Staff conducted three hands-of workshops for the Fifth Grade Classes at White Oaks Elementary School.

2. Number of Community Partners: 5

   a. City of Hampton Public Schools

   b. City of Virginia Beach Public Schools – White Oaks Elementary

   c. City to Newport News

   d. Norfolk Naval Shipyard

   e. Old Dominion University – Civil and Environmental Engineering Department

3. Number of Research Partners: 0

4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	April 2023
M-1.4a	Total Training Hours per Full Time Employee (53) - Current Month	Hours / #FTE	2.40
M-1.4b	Total Training Hours per Full Time Employee (53) - Cumulative Fiscal Year-to-Date	Hours / #FTE	31.22
M-5.2	Educational and Outreach Events	Number	5

Item #	Strategic Planning Measure	Unit	April 2023
M-5.3	Number of Community Partners	Number	5
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee

Bruce W. Husselbee, PhD, P.E., DBIA

TO: General Manager

FROM: Director of Finance

SUBJECT: Monthly Report for April 2023

DATE: May 19, 2023

A. General

1. In October 2019, HRSD issued approximately $206 million of Wastewater Revenue Bonds, Refunding Series 2019A. As part of that bond issue, HRSD refinanced approximately $167 million of outstanding bonds with lower interest rates and used available cash to pay off an additional $53 million of bonds. HRSD saved ratepayers over $29 million in net present value savings by the refinancing and paying off a portion of its outstanding debt.

   To affect the refinancing and the associated defeasance of the refinanced bonds (prior bonds), HRSD created an irrevocable escrow account to pay the future principal and interest requirements on the prior bonds until their respective call or maturity dates ranging from July 1, 2024, through October 1, 2027.

   As is typically done, and as required by HRSD's debt covenants, the escrow was established with investments in non-callable United States Treasury obligations or securities that are unconditionally guaranteed by the United States Government. Those investments are scheduled to mature in amounts and pay interest at rates sufficient to pay when due.

   Scheduled escrow payments began in late 2019 and end in 2027. Near term scheduled payments from the escrow are:

   - June 30, 2023 for $887,862.51;
   - July 31, 2023 for $1,117,045.02;
   - August 1, 2023 or $2,171,084.99;

   Normally, established escrow management is routine business for local governments. Once established, concerns about escrow sufficiency and credit quality of the escrow investments rarely exist. The protracted current debt ceiling debate in congress, however, has raised concerns among financial and credit markets worldwide. The last significant federal debt ceiling debate in 2011 resulted in a credit downgrade of the federal government even though the US Government continued to meet its debt obligations. Now the US government has stated that it could exhaust its ability to borrow money as early as June 1, 2023.

   Bond counsel has advised staff that in the event of a federal default (either late payment or failure to pay) on securities held in the escrow account, HRSD should be prepared to make the aforementioned escrow payments.

   Staff will continue to closely monitor the situation. If by the June 2023 Commission meeting this issue has not been resolved, staff will bring a resolution to the

Commission specifically seeking authorization to make the aforementioned June 2023 escrow payment.

2. HRSD's bond counsel recently discovered a typographical error that was inadvertently introduced into Section 10(d) of the HRSD's Enabling Act in 2004.

   Section 10(d), as originally enacted in 1960, gave the Commission the authority "to construct, and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a sewage disposal system or systems, *either* within or without or partly within and partly without the corporate limits of the District, and to construct sewer improvements within the corporate limits of the District" (emphasis added)

   In adopting an amendment to Section 10 in 2004, the General Assembly inadvertently incorporated a clerical error, so that the quoted language now read "to construct, and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a sewage disposal system or systems, *enter* within or without or partly within and partly without the corporate limits of the District, and to construct sewer improvements within the corporate limits of the District." (emphasis added). The unintended alteration of the word "either" to "enter" rendered the sentence incomprehensible.

   The mistaken transcription from the 2004 amendment was carried through two additional amendments to Section 10 of the Enabling Act, in 2012 and 2021.

   With staff's authorization, bond counsel worked with the Virginia Code Commission's Registrar who can administratively correct such legislative errors without further action by the General Assembly. The compiled version of the Enabling Act on the Virginia Legislative Information Services website is now corrected and reads as follows:

   "The Commission is hereby authorized and empowered: … (d) to construct, and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a sewage disposal system or systems with or without associated water systems, *either* within or without or partly within and partly without the corporate limits of the District, and to construct sewer improvements within the corporate limits of the District" (emphasis added).

   The Register will also notify other publishers of Virginia law of the correction.

3. The accompanying Interim Financial Report indicates that most revenue and expense accounts are generally in line with the adopted budget. Higher than expected interest earnings because of raised interest rates continue to outperform original budgetary expectations. Debt service expenditures are recorded when payments are made; we anticipate it being near budget expectations at year end.

4. Accounts receivable balances for 31-60 days past due increased this month because of a large capital project account recently billed.

5. HRSD has been receiving Low-Income Household Water Assistance Program (LIHWAP) payments since November 2022. As of the end of the month, a total of approximately $6 million has been applied to over 10,000 qualified customer accounts

for water, sewer and wastewater charges. HRSD accepts LIHWAP payments on behalf of HRUBS locality partners.

The following is a total breakout of combined water, sewer, and wastewater treatment assistance received for all HRSD and locality HRUBS charges:

Locality	**LIHWAP Total**
Norfolk	$2,917,655.56
Newport News	$870,774.95
Suffolk	$836,907.89
Chesapeake	$599,523.56
Virginia Beach	$358,418.81
Portsmouth	$330,852.64
James City	$59,542.73
Smithfield	$15,884.75
King William	$7,221.20
Urbanna	$5,415.63
Aqua	$4,659.71
Isle of Wight	$3,714.25
Windsor	$3,200.74
Gloucester	$3,189.56
Surry County	$2,964.58
Town of Surry	$1,900.13
Williamsburg	$208.60
Grand Total	**$6,022,035.29**

B. Interim Financial Report

1. Operating Budget for the Period Ended April 30, 2023

	Amended Budget	Current YTD	Current YTD as % of Budget (83% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	$ 366,882,000	$ 309,333,728	84%	86%
Surcharge	1,755,000	1,322,478	75%	84%
Indirect Discharge	3,200,000	3,688,772	115%	85%
Fees	2,910,000	2,854,057	98%	5%
Municipal Assistance	800,000	506,352	63%	127%
Miscellaneous	1,254,000	1,515,586	121%	164%
Total Operating Revenue	376,801,000	319,220,973	85%	86%
Non Operating Revenues				
Facility Charge	7,150,000	5,960,388	83%	79%
Interest Income	1,570,000	5,170,369	329%	-157%
Build America Bond Subsidy	2,026,000	1,031,088	51%	51%
Other	302,000	820,835	272%	190%
Total Non Operating Revenue	11,048,000	12,982,680	118%	55%
Total Revenues	387,849,000	332,203,653	86%	85%
Transfers from Reserves	18,868,701	15,723,918	83%	83%
Total Revenues and Transfers	$ 406,717,701	$ 347,927,571	86%	85%
Operating Expenses				
Personal Services	$ 63,288,297	$ 53,159,856	84%	84%
Fringe Benefits	26,520,561	21,562,830	81%	79%
Materials & Supplies	13,385,885	9,339,533	70%	78%
Transportation	1,797,226	1,266,581	70%	69%
Utilities	15,055,652	13,041,954	87%	86%
Chemical Purchases	13,026,120	10,290,888	79%	80%
Contractual Services	57,808,888	32,316,165	56%	56%
Major Repairs	12,409,035	6,746,119	54%	44%
Capital Assets	625,737	237,106	38%	69%
Miscellaneous Expense	3,657,334	2,370,748	65%	69%
Total Operating Expenses	207,574,735	150,331,780	72%	71%
Debt Service and Transfers				
Debt Service	69,470,000	62,579,175	90%	87%
Transfer to CIP	129,412,966	107,844,139	83%	88%
Transfer to Risk management	260,000	216,670	83%	83%
Total Debt Service and Transfers	199,142,966	170,639,984	86%	88%
Total Expenses and Transfers	$ 406,717,701	$ 320,971,764	79%	79%

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 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 April 30, 2023

HRSD - RESERVE AND CAPITAL ACTIVITY April 30, 2023

	General Reserve				Capital	
	General	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
Beginning - July 1, 2022	**$ 189,168,885**	**$ 420**	**$ 33,134,065**	**$ 4,279,547**	**$ 32,535,033**	**$ -**
Current Year Sources of Funds						
Current Receipts	340,557,193					
Line of Credit						
VRA Draws					47,876,353	
WIFIA Draws					67,925,046	
Transfers In	-			216,670	107,844,139	
Sources of Funds	340,557,193	-	-	216,670	223,645,538	-
Total Funds Available	**$ 529,726,078**	**$ 420**	**$ 33,134,065**	**$ 4,496,217**	**$ 256,180,571**	**$ -**
Current Year Uses of Funds						
Cash Disbursements	223,745,722				255,364,721	-
CARES Adjustment		(4,015)				
Transfers Out	108,060,809					
Uses of Funds	331,806,531	(4,015)	-	-	255,364,721	-
End of Period - April 30, 2023	**$ 197,919,547**	**$ 4,435**	**$ 33,134,065**	**$ 4,496,217**	**$ 815,850**	**$ -**
Unrestricted Funds	**$ 203,231,614**					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended April 30, 2023

HRSD - PROJECT ANALYSIS April 30, 2023

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2022	Expenditures Year to Date FY2023	Total Project Expenditures	Encumbrances	Available Funds
Administration	73,738,240	24,017,666	4,500,111	28,517,777	1,181,346	44,039,117
Army Base	163,448,800	124,990,776	680,334	125,671,110	792,946	36,984,744
Atlantic	240,329,164	79,425,640	2,712,099	82,137,739	18,576,896	139,614,529
Boat Harbor	391,690,953	55,428,123	31,724,722	87,152,845	175,709,064	128,829,044
Ches-Eliz	183,518,801	118,083,285	3,161,649	121,244,934	4,711,621	57,562,246
Eastern Shore	40,206,468	3,409,844	15,736,687	19,146,531	18,557,037	2,502,900
James River	349,972,248	40,526,157	55,841,446	96,367,603	226,420,229	27,184,416
Middle Peninsula	102,724,107	19,904,529	7,687,565	27,592,094	10,733,839	64,398,174
Nansemond	495,486,169	41,289,643	36,584,354	77,873,997	335,074,747	82,537,425
Surry	60,391,465	38,362,111	2,389,757	40,751,868	11,600,573	8,039,024
VIP	181,408,482	17,792,976	14,398,007	32,190,983	41,366,937	107,850,562
Williamsburg	28,535,758	20,517,874	4,354,159	24,872,033	937,083	2,726,642
York River	77,255,863	13,910,493	4,080,226	17,990,719	14,412,697	44,852,447
General	1,148,502,984	153,413,076	85,819,436	239,232,512	324,995,667	584,274,805
	3,537,209,502	751,072,193	269,670,552	1,020,742,745	1,185,070,682	1,331,396,075

5. Debt Management Overview

HRSD - Debt Outstanding ($000's) April 30, 2023

	Principal Mar 2023	Principal Payments	Principal Draws	Principal Apr 2023	Interest Payments
Fixed Rate					
Senior	165,093	-	-	165,093	-
Subordinate	695,554	(164)	18,954	714,344	(2,238)
Variable Rate					
Subordinate	50,000	-	-	50,000	(136)
Line of Credit	33,721			33,721	(112)
Total	$ 944,368	$ (164)	$ 18,954	$ 963,158	$ (2,486)

HRSD- Series 2016VR Bond Analysis April 28, 2023

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.95%	4.85%	-0.10%
Average	0.60%	0.59%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 04/28/23	3.65%	3.74%	0.09%

* Since October 20, 2011 HRSD has averaged 59 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended April 30, 2023

HRSD - UNRESTRICTED CASH

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

			Days Cash on Hand	Adjusted Days Cash on Hand
Total Unrestricted Cash	**$**	**203,231,614**		**357**
Risk Management Reserve	$	(4,496,217)	(8)	349
Capital (PAYGO only)	$	(815,850)	(1)	348
Adjusted Days Cash on Hand	**$**	**197,919,547**		**348**

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

April 30, 2023

Primary Source	Beginning Market Value July 1, 2022	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value April 30, 2023	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	25,498,734	466,317,941	469,374,443	371,064	22,813,296	14.2%	N/A	0.55%
VIP Stable NAV Liquidity Pool	144,268,153	10,000,000	20,000,000	4,118,084	138,386,237	85.8%	AAAm	5.00%
Total Primary Source	**$ 169,766,887**	**$ 476,317,941**	**$ 489,374,443**	**$ 4,489,148**	**$ 161,199,533**	100.0%		

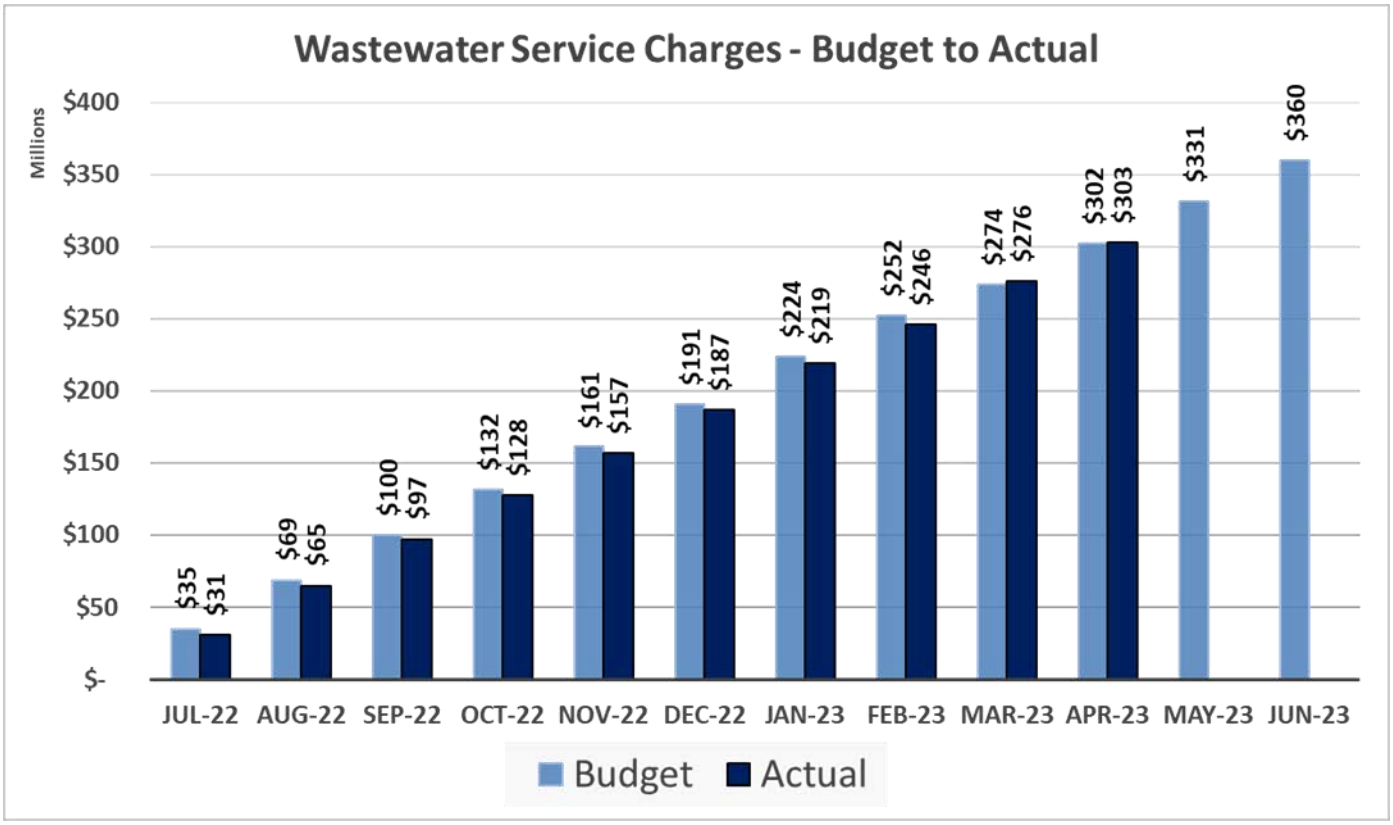
VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.05% in April 2023.

Secondary Source	Beginning Market Value July 1, 2022	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value April 30, 2023	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	62,932,017	-	10,425	865,437	63,529,281	64,599,030	(1,069,750)	4.30%
Total Secondary Source	**$ 62,932,017**	**$ -**	**$ 10,425**	**$ 865,437**	**$ 63,529,281**	**$ 64,599,030**	**$ (1,069,750)**	

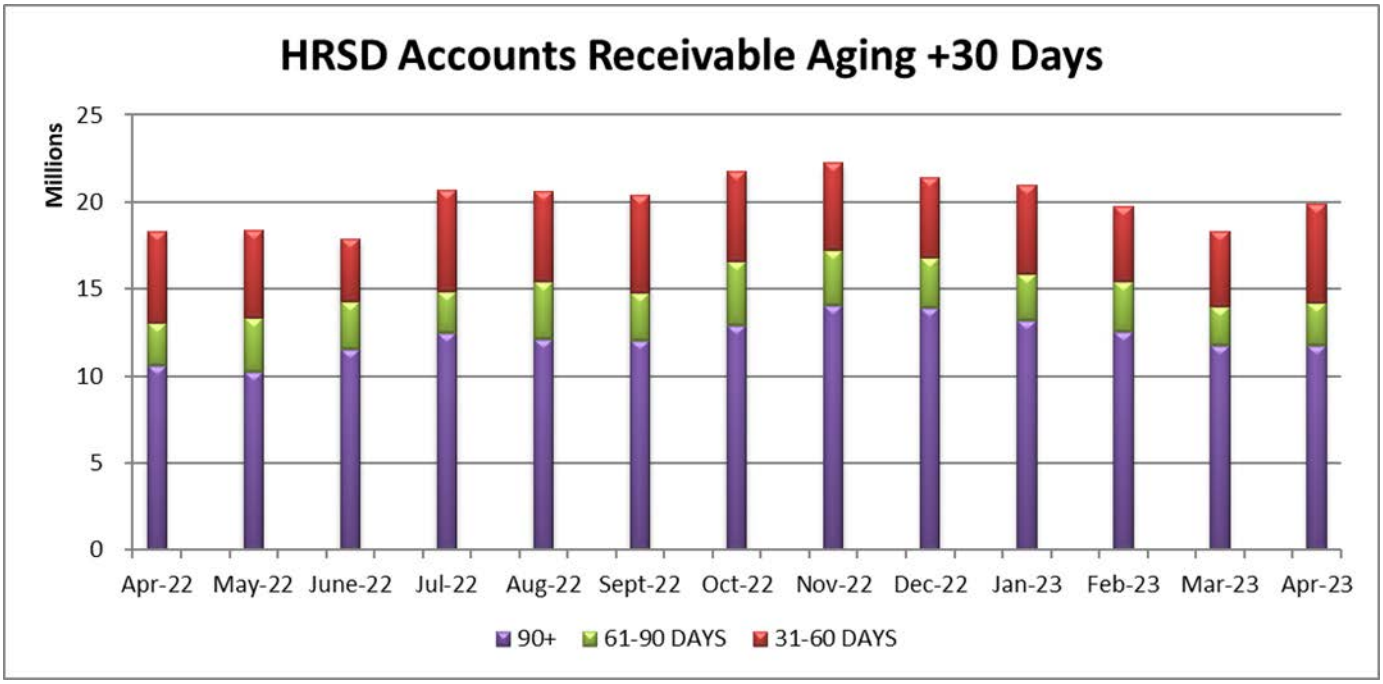
VIP 1-3 Year High Quality Bond Fund out performed ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.04% in April 2023.

	Total	Fund Alloc
Total Primary Source	**$ 161,199,533**	**71.7%**
Total Secondary Source	**$ 63,529,281**	**28.3%**
TOTAL SOURCES	**$ 224,728,814**	**100.0%**

7. Summary of Billed Consumption

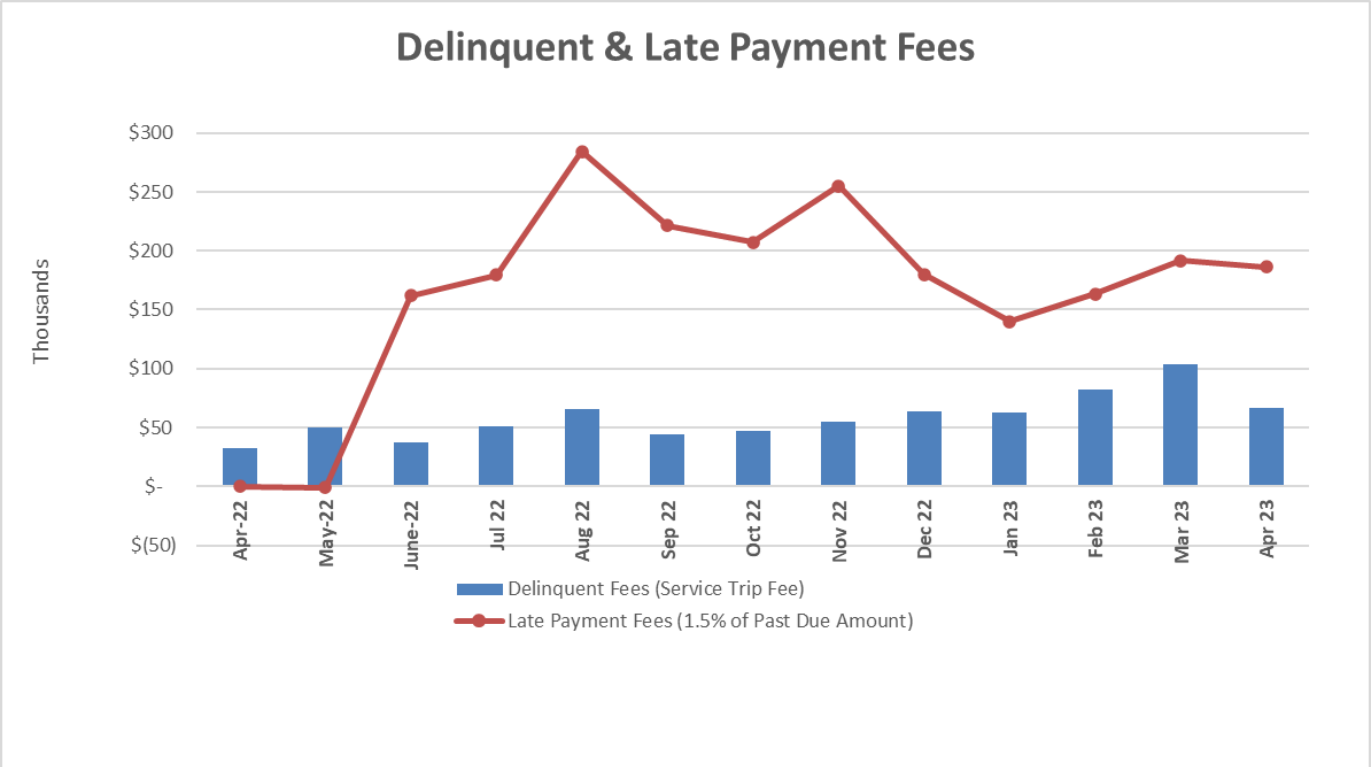


Summary of Billed Consumption (,000s ccf)							
			% Difference		% Difference		% Difference
Month	*FY2023 Cumulative Budget Estimate*	*FY2023 Cumulative Actual*	*From Budget*	*Cumulative FY2022 Actual*	*From FY2022*	*Cumulative 3 Year Average*	*From 3 Year Average*
July	5,015	4,682	-6.6%	4,976	-5.9%	4,947	-5.4%
Aug	9,883	9,651	-2.3%	9,518	1.4%	9,641	0.1%
Sept	14,413	14,207	-1.4%	14,347	-1.0%	14,345	-1.0%
Oct	18,892	18,679	-1.1%	19,048	-1.9%	18,955	-1.5%
Nov	23,125	22,776	-1.5%	22,953	-0.8%	22,412	1.6%
Dec	27,336	27,133	-0.7%	27,541	-1.5%	27,558	-1.5%
Jan	32,088	31,669	-1.3%	31,865	-0.6%	32,148	-1.5%
Feb	36,182	35,601	-1.6%	36,188	-1.6%	36,087	-1.3%
March	39,309	39,806	1.3%	40,229	-1.1%	40,452	-1.6%
Apr	43,360	43,734	0.9%	44,569	-1.9%	44,644	-2.0%
May	47,508	-	N/A	48,315	N/A	48,656	N/A
June	51,620	-	N/A	53,243	N/A	53,324	N/A

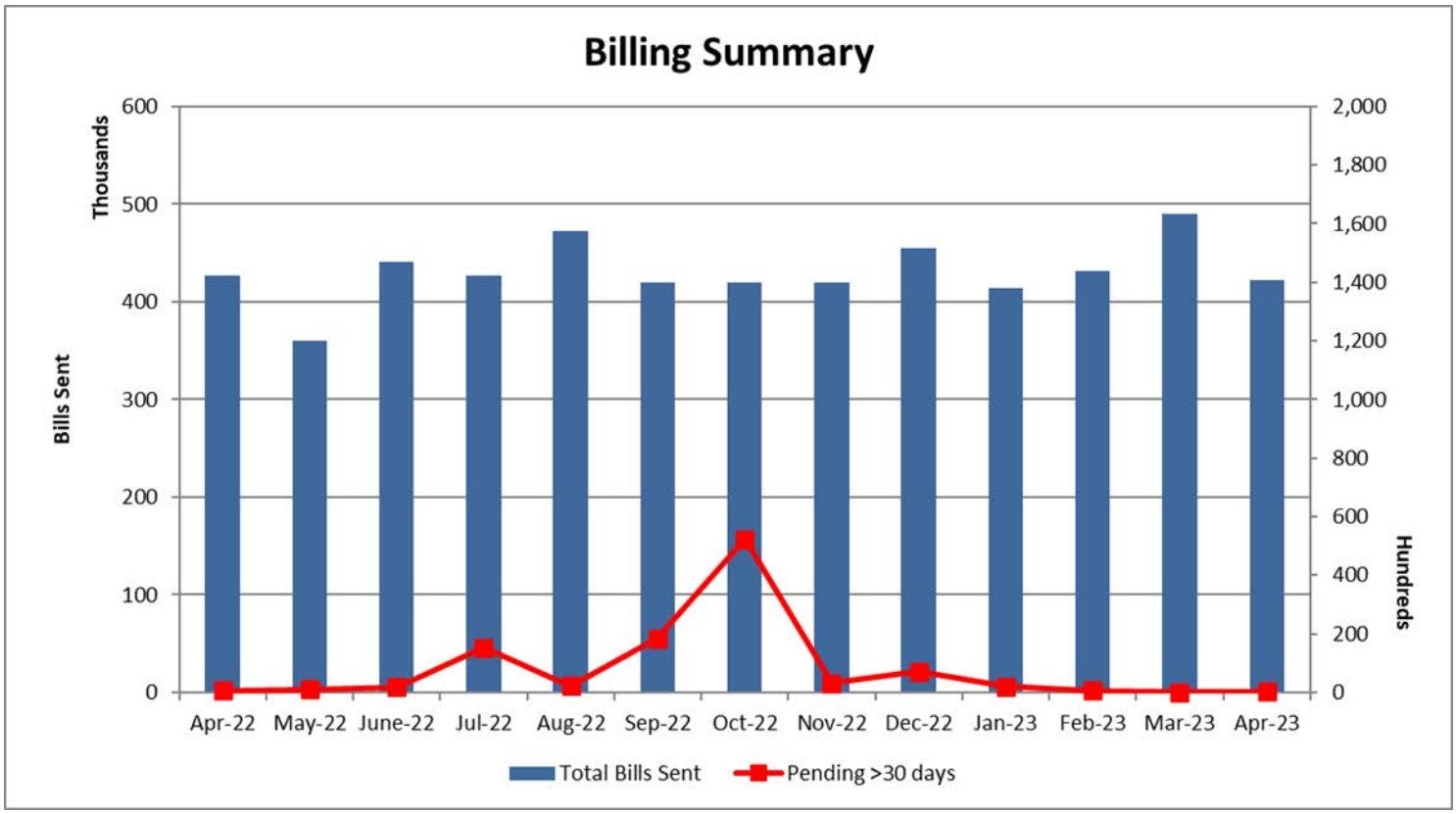


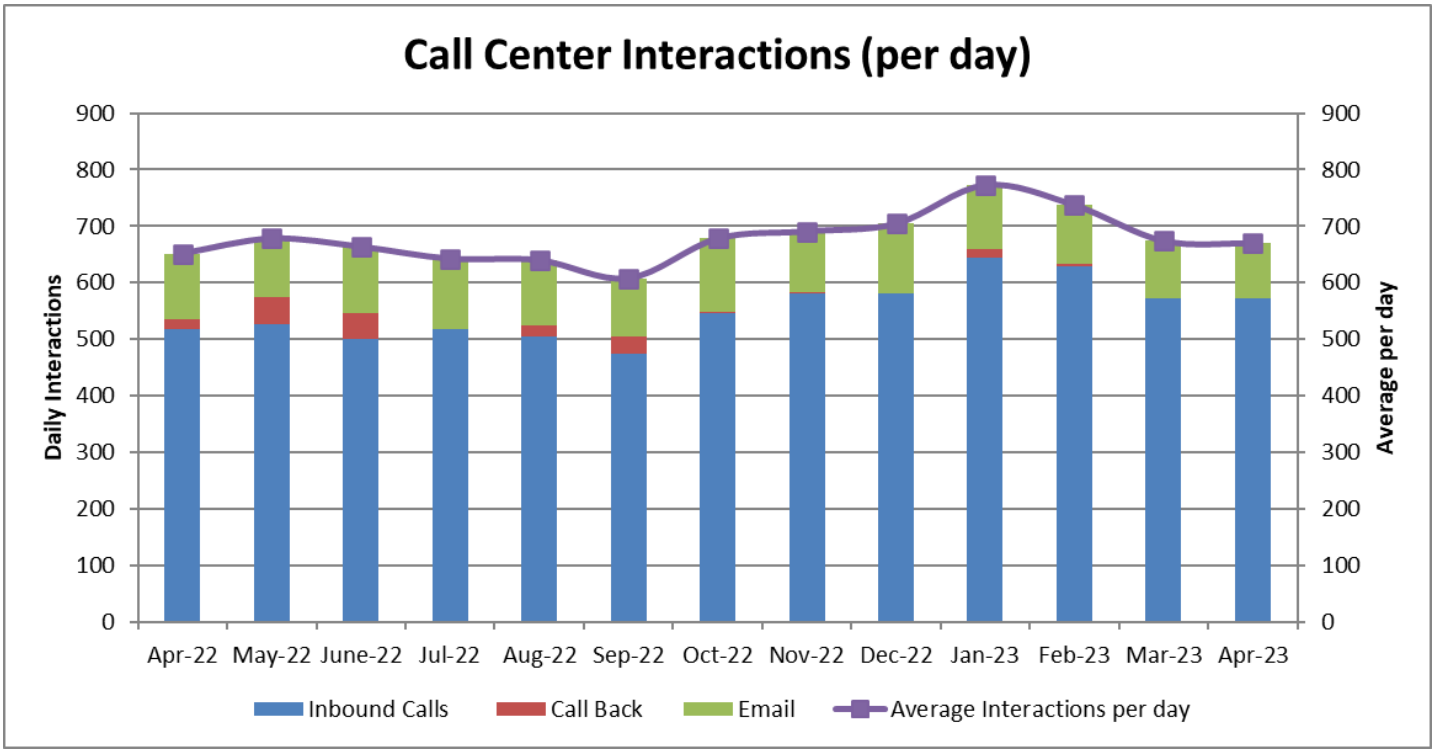
C. Customer Care Center

1. Accounts Receivable Overview

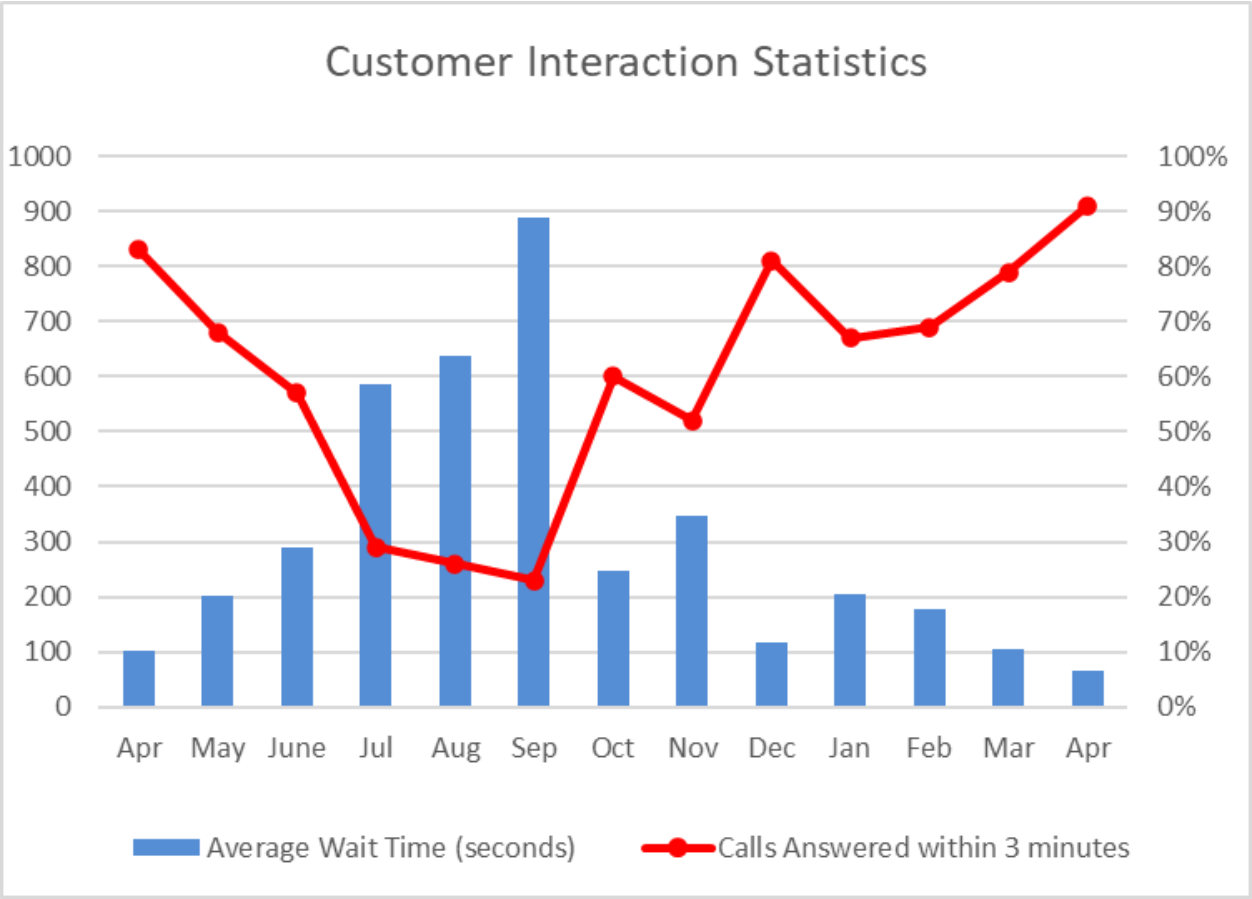


Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19

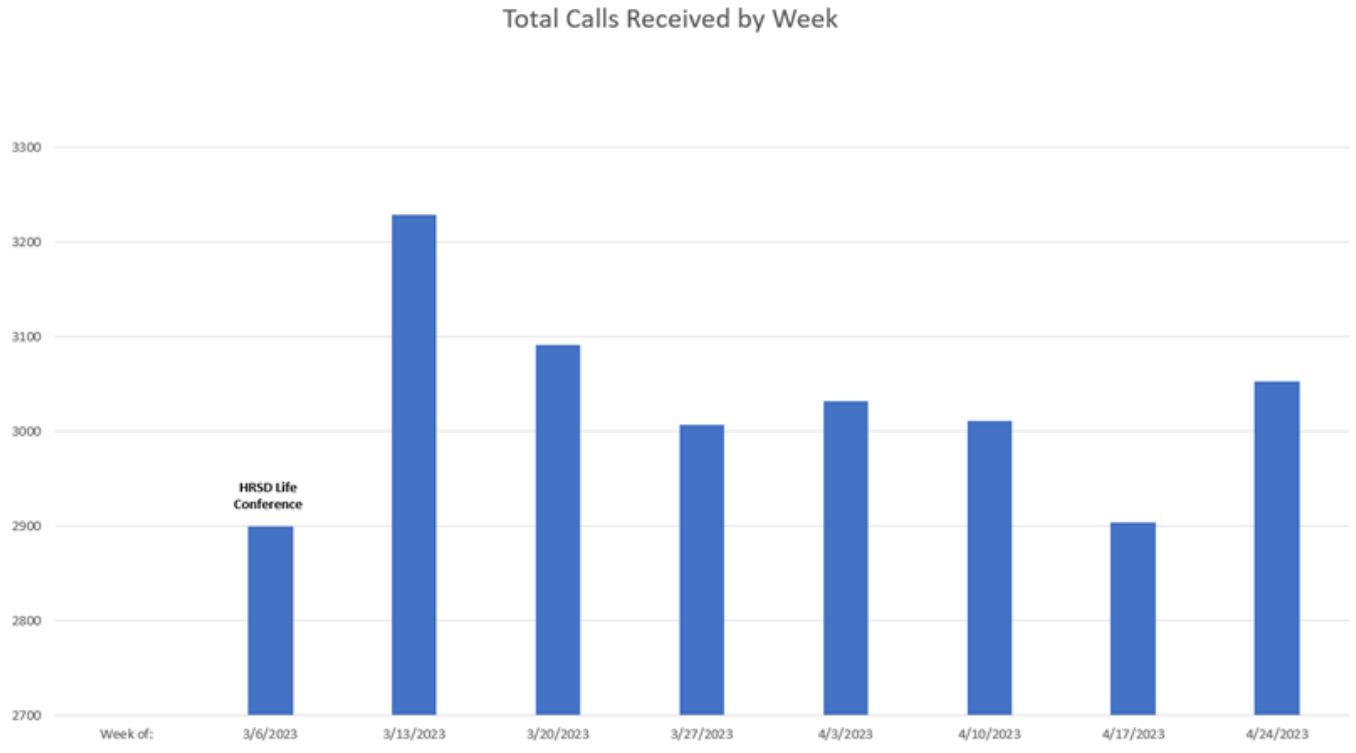

Billing Summary
Thousands
Bills Sent
600
500
400
300
200
100
0
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Hundreds
Apr-22
May-22
June-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Total Bills Sent
Pending >30 days


Call Center Interactions (per day)
Daily Interactions
Average per day
900
800
700
600
500
400
300
200
100
0
Apr-22
May-22
June-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Inbound Calls
Call Back
Email
Average Interactions per day

2. Customer Care Center Statistics

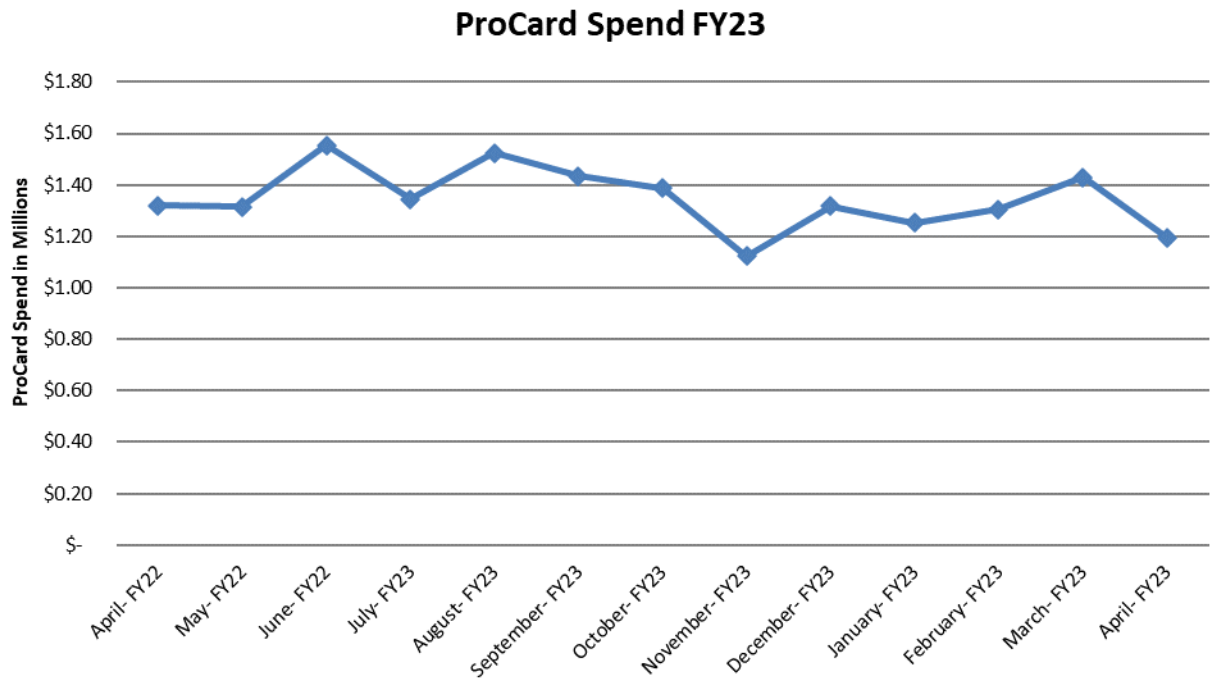


tomer Interaction Statistics	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Calls Answered within 3 minutes	83%	68%	57%	29%	26%	23%	60%	52%	81%	67%	69%	79%	91%
Average Wait Time (seconds)	101	203	291	587	638	887	246	347	117	206	177	105	66
Calls Abandoned	7%	12%	15%	25%	25%	31%	14%	18%	8%	12%	11%	7%	5%


Total Calls Received by Week
3300
3200
3100
3000
2900
2800
2700
HRSD Life Conference
Week of:
3/6/2023
3/13/2023
3/20/2023
3/27/2023
4/3/2023
4/10/2023
4/17/2023
4/24/2023

D. Procurement Statistics

Savings	Current Period	FYTD
*Competitive Savings[1]	$105,905	$3,772,479
Negotiated Savings[2]	$4,170	$73,564
Salvage Revenues	$0	$30,259
Corporate VISA Card - Estimated Rebate	$17,795	$198,329



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

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

E. Monthly Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	April 2023
M-1.4a	Training During Work Hours Per Full Time Employee (103) – Current Month	Hours / #FTE	0.92
M-1.4b	Total Training During Work Hours Per Full Time Employee (103) – Cumulative Fiscal Year-to-Date	Hours / #FTE	6.02
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	101%
	General Reserves	Percentage of Operating Budget less Depreciation	111%
	Liquidity	Days Cash on Hand	357 Days
	Accounts Receivable (HRSD)	Dollars	$38,120,278
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	30.8%

Respectfully,

Steven G. de Mik

Steven G. de Mik
Deputy General Manager/CFO

Attachments: Quarterly Performance 3rd Quarter FY23
HRSD's Operating Cash Strategies and Retiree Health Trust (OPEB)

TO: General Manager

FROM: Director of Information Technology

SUBJECT: Information Technology Department Report for April 2023

DATE: May 15, 2023

A. General

1. IT staff continue working on data migration and application configuration tuning for the recently installed Oracle Database Appliance. Concurrent efforts to decommission obsolete and legacy hardware ensure that the old platforms are retired.

2. The Cybersecurity Division, in conjunction with the U.S. Department of Homeland Security, is performing a number of security assessments focused on improving and enhancing both physical and cyber security.

3. The IT Help Desk processed 398 work orders and requests for assistance in April, ensuring availability of computing resources to those working locally and remotely.

4. Staff successfully upgraded key components of HRSD's data backup, restoration, and business continuity infrastructure. Ongoing upgrade and refresh of IT assets provides the latest functionality and security features available.

5. In efforts to standardize the process of submission, review, and acceptance of new IT projects, ITD has established a uniform intake process which will ensure uniformity and best practice adherence for new work involving projects which rely upon IT in measuring and/or defining success of project objectives. Staff will present an overview of the process to the QST next month.

B. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Number of Community Partners: 0

3. Metrics Summary

Item #	Strategic Planning Measure	Unit	April 2023
M-1.4a	Training During Work Hours Per Full-Time Employee (54) – Current Month	Total Training Hours / # FTE	0.65
M-1.4b	Total Training During Work Hours Per Full-Time Employee (54) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	28.55
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 April 2023

DATE: May 15, 2023

A. Interceptor Systems

1. North Shore (NS)

a. There was one Sanitary Sewer Overflow (SSO) this month. This SSO occurred at North Avenue Pump Station (PS) in Newport News on April 30 with a total estimated volume of 7,050 gallons lost. This overflow was the result of a significant rainfall event.

b. There were three interceptor complaints and five system alarms during the month. Three of the system alarms were the result of the heavy rain event in Newport News on April 30 (Refer to the Air and Effluent Summaries in the Water Quality monthly report for additional information). The two other alarms were simple fixes, and the complaints were all relatively minor and fully resolved by staff.

c. In the area of Supervisory Control and Data Acquisition (SCADA)Implementation, several site cutovers and global changes were completed during the month. Significant progress was made toward resolving the Verizon Communication issues.

2. South Shore (SS)

a. There were two interceptor complaints reported this month. One was associated with the City of Norfolk Department of Utilities, and one was associated with the City of Chesapeake Department of Public Utilities. On April 5, a City of Chesapeake resident called about an uneven pavement patch installed by an HRSD contractor on Gum Road. Staff contacted the contractor, and the contractor corrected the issue. The other complaint with the City of Norfolk was minor in nature and easily resolved by staff.

b. On April 27, staff installed a bag stop at the Great Bridge Locks to assist the City of Chesapeake and a contractor. Staff used the bag stop to keep the canal water from entering the excavation while the contractor cut and capped the force main thus allowing the city pump station to remove pump and haul.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP), Virginia Initiative Plant (VIP), Treatment Projects Team (TPT) (ACV Group)

a. ABTP

(1) There was one exception for failing to record two valid total hydrocarbon (THC) readings in one hour. The cause was instrumentation failure.

(2) There was one reportable event for use of the incinerator bypass stack on April 19, due to a power anomaly.

(3) A contractor completed repairs on incinerators #1 and #2. Incinerator #2 was returned to service.

(4) Staff removed and installed a new biosolids conveyor belt and six new rollers. A contractor vulcanized the belt after install.

b. VIP

(1) There was one reportable event for use of the incinerator bypass stack on April 23, due to a vibration alarm on the induced draft fan. There was another reportable bypass stack event on April 28, due to utility power loss.

(2) There was one reportable event for invalid THC readings from the incinerator off-gas monitoring system on April 13 that was caused by malfunction of the THC analyzer.

(3) Ammonia-Based Aeration Control (ABAC) is operating at a dissolved oxygen low-end setpoint of 1.0 mg/L, ortho-phosphate setpoint of 2.5 mg/L and ammonia setpoint of 1.50 mg/L. The average DO level in the aeration tanks was 0.6 mg/L for April. No supplemental carbon chemical addition was used for denitrification.

c. TPT

Staff completed numerous maintenance activities at various work centers and is proving to be very productive and efficient.

2. Atlantic (ATP), Boat Harbor (BHTP), and Nansemond (NTP) Treatment Plant (ABN Group)

a. ATP

(1) The contractor set the new scrubber tower at Odor Control System (OCS) D, which caught fire in summer 2022, and removed the media from stage 1.

(2) The live bottom screws associated with the cake hopper at Pre-dewatering had three screws fail. Screws 1,3 & 4 appear to have failed similarly to how screws 1 & 3 failed previously - with shearing at the flange connection between the drive shaft and the actual screw. Plant staff are working closely with the contractor to resolve the issue.

(3) The final dewatering centrifuge #2 back drive gear box locked up. Staff removed the gear box and are prepping it to be sent out for evaluation and repair.

(4) The Thermal Hydrolysis Process (THP) had an electrical malfunction that caused it to shut down. Staff found a broken conduit that allowed water to enter. New conduit and wires have been ordered and will be replaced as soon as they are received.

b. BHTP

(1) There were two MACT 129 deviations this month. Both occurred due to a power blip that caused the use of the emergency bypass stack.

(2) Staff tested the new sidestream programing. The program is running as it should and is ready for nitrification start up planned for May.

(3) Staff completed the rehabilitation work on Grit Tank #2 this month after contractors completed the coatings work.

(4) Contractors completed the repairs on incinerator #1, which included a hearth rebuild and castable repair. Staff have minor repairs and adjustments to make on the rabble arms before the incinerator can be placed in service, currently planned for June.

c. NTP/Sustainable Water Initiative for Tomorrow (SWIFT) Research Center

(1) The total volume of SWIFT recharge into the Potomac aquifer for April was 17.66 million gallons (MG) (63.4% Recharge Time based on 650 gpm).

(2) NTP had four reportable events for this month. Additional information can be found in the Air and Effluent Summaries.

(3) SWIFT staff continued feeding alum as a coagulant to only one flocculation/sedimentation (F/S) train. Data will be collected at different doses to perform a side-by-side comparison in operation performance, and to learn if there are opportunity for cost savings while not impacting downstream processes like ozonation and biofiltration.

(4) There were several instances this month that prevented SWIFT aquifer recharge:
   a. Power blip on April 2
   b. NTP treatment issues - high solids coming to SWIFT on April 3
   c. NPW shutdown on April 3
   d. Potable water line damaged by landscapers on April 13
   e. Total Nitrogen analyzer malfunction

3. James River (JRTP), Williamsburg (WBTP), and York River (YRTP) Treatment Plant (JWY Group)

a. JRTP

(1) There were two odor scrubber deviations this month. One deviation was a scrubber effluent exhaust over five parts per million (ppm) due to the hydrogen sulfide set point between the dual stage scrubber set too high. The second deviation was a loss of odor scrubber operations for more than one hour due to a new power line connection by Dominion Energy (DE).

(2) Staff completed installing new media in Integrated Fixed Film Activated Solids (IFAS) tanks #2 and #3. This is the first phase of a multiyear plan to increase all IFAS tanks media fill fractions from 45 percent to 60 percent in time for SWIFT startup. The higher fill fractions will help meet nutrient reduction requirements needed for SWIFT influent.

(3) IFAS tank #8 was taken out of service to repair the tank's zone #5 separation wall which partially unfastened due to impacts of flow on the wall. Repairs were completed and the tank was placed back in service.

b. WBTP

(1) There were two reportable air events, six incinerator deviations, and one odor scrubber deviation. The air events were a use of the incinerator emergency bypass stack due to loss of the induced draft (ID) fan during a power outage. Five incinerator deviations were due to failures of the THC meter to record two valid readings per hour due to calibration issues. The fourth was less than the minimum twelve-hour average pressure drop due to the loss of the ID fan during the power outage. The power outage was also responsible for the odor scrubber system being off-line for more than one hour.

(2) Virginia Natural Gas began replacing the old natural gas line servicing the plant. The new line is sized to meet the plant's natural gas needs and includes branch lines serving the incinerator, dewatering, and the administration building and a new meter.

(3) The Administration Building Renovation Project is complete. Staff are enjoying the new space. Punch list items remain for the contractor to complete. The temporary trailers used for office space during the renovation were removed.

c. YRTP

Staff formed and poured concrete sidewalks near the aeration tank influent and secondary clarifier effluent. The sidewalks were damaged during construction of electrical duct banks installed to serve secondary treatment power needs.

d. Multiple Hearth Incinerator (MHI) Operations Events Summary

(1) All plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) met the 100 PPM THC limit with continuous emissions monitoring valid

data captured of greater than 83%.

(2) The MHIs had three deviations from the required 129 Sewage Sludge Incineration (SSI) rule minimum operating parameters and four minor bypass events (<60 minute) and two reportable bypass events that lasted more than an hour.

C. Small Communities Division (SCD)

1. Middle Peninsula

a. Eight new single-family home connections were made in April.

b. West Point Treatment Plant (WPTP)

Tertiary pump number three had a seal fail alarm, and the contractor removed the pump, taking it to their facility for further investigation, where it was determined to be a complete loss. The pump is currently under a prorated warranty; staff are working with the vendor to acquire a new pump.

c. Central Middlesex Treatment Plant

The automatic bar screen failed, and staff are awaiting parts to be delivered to complete the repairs needed to place it back in service.

d. King William Treatment Plant

The plant flow averaged 0.34 MGD on the outfall and 0.050 MGD on re-use. Staff are working to track down the source of the major uptick in plant flow over the past six months. These additional flows require a pump and haul operation to WPTP.

2. Surry Systems

Staff identified a partial blockage in a gravity section of pipe along Lebanon Rd in the Town of Surry just upstream of PS 7. A piece of Concrete had fallen from the utility access hole casting and created a partial blockage of the pipeline. The contractor was able to clear the blockage, but approximately 100' of pipe has been flagged as a possible prompt repair due to corrosion and pipe depth.

3. Lawnes Point

a. Pump and Haul operations continue at Lawnes Point. The contractor performed four days of pump and haul of the Sequential Batch Reactor (SBR) tank this month.

b. Dewatering of the two holding ponds was completed in advance of the upcoming hurricane season. Both pond water levels were reduced by approximately three feet.

4. Eastern Shore (ES)

a. Onancock Treatment Plant

(1) Staff replaced Membrane #3 influent valve, actuator, and automated valve. The old valve was not serviceable and was constantly leaking. This was a major undertaking but eliminated multiple issues at the plant.

(2) Staffing remains challenging with two vacant system operator positions. Staff from other work centers are utilized to support as needed while recruiting efforts are ongoing.

b. Chincoteague Treatment Plant

Planning is underway for HRSD to assume ownership of the package plant in mid-2023.

D. Electrical & Instrumentation (E&I)

1. The Cambi THP system shut down numerous times at ATP this month. Staff responded and replaced a fuse, control circuit conduits, and wiring to remedy the issue.

2. Staff coordinated with Dominion Energy to stabilize a terminal pole during excavation to reroute a stormwater drain as part of the Advanced Nutrient Reduction Improvement Project. The rerouting alleviated future underground utilities conflicts associated with the construction of new facilities at NTP.

3. Staff worked with the contractor to perform transformer oil sample collections at VIP. Testing will be conducted, and a report will be developed by the testing facility.

4. Staff worked with the Centrifuge Controls vendor to assist in the upgrade of the centrifuge controls at YRTP. Staff programmed the Distributed Control System (DCS) while the vendor programmed the Programmable Logic Controller (PLC), thereby interfacing the two systems.

5. Staff replaced radios and power supplies due to multiple failures on the Motorola SCADA system in Mathews County. System wide Issues have been resolved.

6. Staff attended National Electrical Code and Grounding & Bonding training facilitated by National Training Transfer.

E. Support Systems

1. Facilities Maintenance

a. Renovation of the electrical shop at ATP continues. The HVAC contractor installed all diffusers and attached ductwork; HVAC units are operational.

b. The Machine Shop had a total of 18 projects with four pump rebuilds. A more notable project involved a Centrifuge Pedestal bearing from the WTP. This was a disposable part that was made to be rebuilt. Staff machined the pedestal with

stainless bearing caps that can be removed to access the bores. They are now sleeved and brought back to bearing tolerance.

F. Resource Recovery

1. As a result of increased operating and maintenance costs and limited funds, staff shifted focus to optimize power usage and reduce chemical usage to include Sodium Hypochlorite.

2. Staff are researching ways to take advantage of newly released federal grants that result in cost savings in new and existing processes.

G. Water Technology and Research

Upgrades in construction at the Nansemond Treatment Plant include an expansion of the struvite recovery facility (SRF) to accommodate flows from Boat Harbor. Along with this expansion, the facility is being modified to use magnesium oxide (MgO) instead of magnesium chloride, because MgO is so much less costly and results in a more positive business case for the facility. This followed several years of full-scale pilot testing MgO. The transition to MgO will require struvite dewatering and drying technology modifications to accommodate the changing characteristics of the struvite product, which was an important outcome of the pilot testing work. The SRF is also being upgraded to add “WASSTRIP” functionality, which will nearly double struvite production from the facility along with several other benefits. Finally, the SRF will be modified to be controlled from the plant distributed control system rather than a vendor-provided programmable logic control system. This will improve flexibility and reliability.

H. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	4	3	4	3	2	3	5	4	3	4		
2.7	# of PS Annual PMs Performed (SS)	3	6	7	8	3	1	2	2	5	13		
2.7	# of Backup Generator PMs Performed (Target is 4.6)	17	15	10	13	16	12	15	12	12	10		
2.8	# of FM Air Release Valve PMs Performed (NS)	105	192	136	181	403	337	184	305	225	236		
2.8	# of FM Air Release Valve PMs Performed (SS)	8	193	135	98	149	131	258	241	189	97		
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	2,685	4,501	4,298	2,197	3,549	3,935	5,602	1,553	2,512	1,161		
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	6130	7044	14,051	6,967	0	8,964	13,303	8,515	17,055		
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	10,896	11,845	17,293	0	0	2,274	0	0	0		

I. Strategic Measurement Data

1. Education and Outreach Events: 10

   a. 04/11/2023 - Hosted visitors from Suez R&D group at York River and James River Treatment Plants – Charles Bott

   b. 04/19/2023 – Tour given to new HRSD Project managers by David Ewing

   c. 04/20/2023 - Hosted Professor Paul Westerhoff, Arizona State University, at the SRC – Charles Bott

   d. 04/20/2023 - SWIFT staff provided a tour to Paul Westerhoff

   e. 04/22/2023 - Touch-A-Truck event at Greenbrier Mall in Chesapeake with Phil Miltier, Dan Belts, Bryan Patterson, and Mike Etheridge

   f. 04/25/2023 - National Science Foundation, Engineering Directorate, Advisory Committee meeting – Charles Bott

   g. 04/26/2023 – Tours of the VIP Plant for Princess Anne High School Students - Josh Coyle, Mark Ballew, Jacob Hoagland, Scott Whitby

   h. 04/27/2023 - Tour of the VIP plant for the Norfolk Sister City Association, consisting of members from Ukraine's Congressional Office for International Leadership program - Josh Coyle

   i. 04/27/2023 - HRPWA Wastewater Field Day at SWIFT Research Facility – Kelly Lamp

   j. 04/29/2023 - STEM Day at Ghent Elementary School in Norfolk with Mike Hess

2. Community Partners: 7

   a. City of Norfolk Public Schools

   b. City of Virginia Beach Public Schools

   c. DOE Jefferson Lab

   d. Hampton Roads Public Works Academy

   e. Norfolk Sister City Association

   f. Old Dominion University (ODU)

   g. Town of West Point

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	April 2023
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (524) – Current Month	Hours / FTE	3.79
M-1.4b	Total Training During Work Hours per FTE (524) – Cumulative Year-to-Date	Hours / FTE	31.15
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	29,291.35
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	56.74%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	18.28%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	24.98%
M- 4.1a	Energy Use: Treatment estimated readings	kWh/MG	2,347
M-4.1b	Energy Use: Pump Stations estimated readings	kWh/MG	262
M-4.1c	Energy Use: Office Building estimated readings	kWh/MG	84
M-5.2	Educational and Outreach Events	Number	10
M-5.3	Number of Community Partners	Number	7

Respectfully submitted,

Eddie M. Abisaab, PE
Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for April 2023

DATE: May 10, 2023

A. Talent Management Executive Summary

1. Recruitment Summary

Current Vacancies	50
New Recruitment Campaigns	12
Job Offers Accepted – Internal Selections	8
Job Offers Accepted – External Selections	23
Internal Applications	23
External Applications	180
Average Days to Fill Position	123.54*

*Number is not reflective of the true time to fill due to the Operations Pipeline positions which are posted continuously.

2. Employee Separation Summary

	April 2023	Total (April 2022-April 2023)
Career/Better Opportunity	3	23
Content of work	0	5
Family circumstances	0	5
Dismissal	3	12
Going to school	0	1
Lack of Opportunity for Advancement	0	1
Moving from the area	0	6
Salary	0	5
Retirement	0	17
End of Assignment (PT)	0	24
Administrative Separation	0	2
Unknown	1	2

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

Description	April 2023	Total (March 2020 – April 2023)
Quarantines due to illness or direct exposure (household or external)	0	452
Work Related Quarantines	0	106
Personal Travel Quarantines	0	61
Confirmed Employee COVID-19 Cases	3	336
Work Related Confirmed COVID-19 Cases	0	13
Contractor COVID-19 Cases on HRSD Sites*	0	12
Work Related exposure no quarantine required*	0	91
Vaccine Acknowledgements	4	917
Booster Acknowledgements	1	491
Vaccination Rate	90%	
Boosted*	43%	

*Added May 2022

4. Enterprise Resource Planning (ERP)

   a. HRSD continued working with the consultant on system enhancements and changes to benefit interfaces.

   b. Worked with Mid-Atlantic CORE User Group planning team to organize registration and event setup for their annual meeting. HRSD and the City of Virginia Beach are co-hosting the event.

5. Benefits and Compensation

   a. The renewal for health, dental and vision was finalized and the preparations for Open enrollment were completed.

   b. The benefit Request for Proposal (RFP) has been finalized and will be advertised next month.

   c. The compensation study RFP has been posted for proposals.

6. Wellness Program

a. Participation

Year Ten Participation Activities	Unit	April 2023	Year to Date (March 2023–February 2024)
My Spark Central Registrations	Number	12	36
Biometric Screenings	Number	3	7
Biometric Outcomes	Number	3	6
Annual Physicals	Number	4	7
Preventive Health Exams	Number	14	23
Preventive Health Assessments (PHA)	Number	26	106
Health coaching	Number	2	5
Age-appropriate vaccine	Number	1	3
Complete Smoke Attestation	Number	39	183
HRSD Lunch & Learns	Number	72	232
Wellness Activity/Challenges	Number	51	242

a. The WellSpark Wellness Specialist did one onsite visit this month at the York River Treatment Plant (YRTP).

b. Preparations were made for the final month of the first quarter to focus on May being Mental Health awareness month. The first notification on Mental Health awareness was sent to the organization with free sessions being offered each week of May.

c. The Spark Social 12-week group coaching program continued this month in addition to four lunch and learns and four new wellness year presentations.

d. The wellness specialist presented the Wellness program to new employees at New Employee Orientation on April 3.

7. Organizational Development and Training (ODT):

a. Worked with consultant Hicks-Carter-Hicks (H-C-H) and the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) initiatives.

b. Participated in the Division Leader meeting.

c. Conducted the third LAMA cohort orientation. This year we have 18 participants.

d. Conducted the first half of supervisor training, Leadership Ethics Accountability Program. We have 22 new supervisors.

e. Began working on the 2023 Work Center Planning Day initiative.

f. Continued work with the Customer Care Division to curate online learning paths, and integration of available Corporate Training courses.

g. Continued work with the Water Quality Department to increase quality assurance training courses.

h. Continued work on the Corporate Training software.

i. Continued to work with the a cross-departmental team to advance the functionality of Canvas.

j. Continued to work with the SharePoint Governance Team.

k. Worked with Operations Quality Steering Team on a follow-up retreat initiative.

8. Apprenticeship Program

Work continued on the following:

a. Apprenticeship Mentoring Program

b. Building and structuring an Apprenticeship daytime program

c. Developing Standard Operating Procedures for ODT responsibilities

d. Trade curricula revisions and course development to update and enhance course offerings in Catalog

9. Safety

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

	2022	**2023**
Mishaps	36	8
Lost Time Mishaps	4	3
Numbers subject to change pending HR review of each case.		

10. Safety Division Monthly Activities

Safety Training Classes	9
Work Center Safety Inspections	10
Reported Accident Investigations	3
Construction Site Safety Evaluations	8
Contractor Safety Briefings	3
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	297
Industrial Hygiene Monitoring Events	2

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (11)

   a. 04/03/2023 Eastern Shore Job Fair
   b. 04/04/2023 VEC Hiring Event
   c. 04/05/2023 Norfolk Public Schools with the City of Norfolk - Norfolk Business Development Hire our Grads
   d. 04/06/2023 TCC Hiring Event
   e. 04/10/2023 Langley Transition Assistance Program (TAP)
   f. 04/11/2023 Veterans Employment Center Hampton
   g. 04/21/2023 Veteran/Spouse Employer Panel
   h. 04/26/2023 V3 Advisory meeting
   i. 04/27/2023 Advanced Technology Institute Advisory Council
   j. 04/28/2023 Princess Anne High School Job Fair
   k. 04/29/2023 College and Career Carnival

2. Community Partners: (11)

   a. Center for Creative Leadership
   b. City of Hampton Public Schools
   c. Hampton Roads Public Works Academy
   d. New Horizons Regional Education Centers
   e. Virginia Employment Commission
   f. Joint Base Langley-Eustis
   g. Tidewater Community College
   h. City of Virginia Beach Public Schools
   i. Advanced Technology Institute
   j. Norfolk Public Schools
   k. City of Norfolk

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	April 2023
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.36%
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.00%
M-1.4a	Total Training Hours Per Full Time Employee (18)	Total Training Hours/ FTE	1.33
M-1.4b	Total Training During Work Hours Per Full Time Employee (18) – Cumulative Fiscal Year-to-Date	Hours / FTE	28.42
M-5.2	Educational and Outreach Events	Number	11
M-5.3	Community Partners	Number	11

Respectfully submitted,

Dorissa Pitts-Paige
Director of Talent Management

TO: General Manager

FROM: Director of Water Quality (DWQ)

SUBJECT: Monthly Report for April 2023

DATE: May 10, 2023

A. General

1. No civil penalties were issued by the Pretreatment and Pollution (P3) Division in April.

2. Jack Denby accepted a nomination to serve as voting member of the National Environmental Laboratories Accreditation Conference (NELAC) Institute Proficiency Testing Program Executive Committee. This committee provides oversight and conducts business for the Proficiency Testing Program employed by almost all states as a key element of laboratory accreditation or certification.

3. WQ continued work with Operations staff to address ongoing odor issues at the Atlantic Treatment Plant (ATP). TSD maintained increased odor surveillance and worked with ATP staff to identify and mitigate odor sources and provide immediate response to odor complaints. Further information on odor complaints for HRSD facilities can be found in the Effluent and Air Emissions Summary.

4. On April 5, 2023, North Shore Interceptor staff reported a chemical odor in the upstream siphon chamber (Siphon Chamber 1622) of North Gravity Line 146 (Boat Harbor Service Area). Interceptors staff were performing annual line cleaning when the odor was observed. P3 observed the same odor in the Siphon Chamber 1622, but no odor was detected in the upline manholes. A sample was collected from Siphon Chamber 1622 and analyzed for volatile organic compounds (VOCs). Results showed detectable concentrations of pollutants found in solvents and known to have a gasoline-like odor. It is believed there was an illicit discharge which became trapped in the Siphon Chamber. Without evidence of an active discharge, P3 did not investigate further. Treatment was not impacted.

5. Director participated in the US Water Week activities in Washington, DC, offering opportunities for engagement and advocacy with legislative staff from the Senate and House of Representatives. HRSD was represented by the General Manager (GM) and the Director of Water Quality (DWQ), who met with staff from Senators Warner and Kaine and with the staff of Congressman Scott. During these visits, the benefits our communities have seen from the increased investment in infrastructure and from the Low Income Household Water Assistance Program (LIHWAP) were shared. The GM and DWQ advocated for continued infrastructure investment and requested that regional authorities be included in the eligibility criteria for receiving funding in any future infrastructure investment legislation. They further expressed a critical need for permanent funding of LIHWAP and also advocated on behalf of all water and wastewater utilities in supporting Per- and Polyfluoroalkyl Substances (PFAS) legislation that

recognizes that water/wastewater utilities do not generate PFAS and are passive recipients of PFAS that is discharged through domestic and industrial drains. Specifically, the GM and DWQ expressed a need for an exemption for wastewater utilities from Comprehensive Environmental Recovery, Compensation and Liability Act (CERCLA) liability associated with the disposal of PFAS in the environment. Liability costs from any clean-up efforts must be directed to those manufacturers and industries that profited from PFAS, consistent with a "Polluter Pays" model of responsibility.

6. DWQ participated in the following HRSD activities:

   a. HRSD Quality Steering Team (QST)
   b. SWIFT QST

6. Advocacy and external activities:

   a. Elizabeth River Project (ERP) Knitting Mill Creek Steering Committee meeting
   b. Environmental Protection Agency (EPA) Science Advisory Board (SAB) meeting on the proposed biosolids chemical prioritization process and biosolids screening tool
   c. Virginia Association of Municipal Wastewater Agencies (VAMWA) Board Retreat and Strategic Planning meeting
   d. Virginia Forever Executive Board Meeting
   e. National Association of Clean Water Agencies (NACWA) Water Week Fly-In and meeting with Virginia legislative staff to advocate for continued infrastructure funding, perpetual funding for the LIHWAP, and wastewater utility exemption from the proposed CERCLA

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group conducted four cleanup events across the region that included 41 volunteers. Metrics on total pounds of trash collected are still being compiled.

2. The Water Quality Communication Team met to review previous facilitator meeting ideas and to plan an outline for focus group meetings to discover information on ways the WQ Department can improve collaboration and communication between Divisions.

C. Municipal Assistance Program (MAP)

HRSD provided sampling and analytical services to the following to support monitoring required for their respective VPDES permits:

1. City of Franklin
2. Northumberland County
3. Virginia American Water – Dale City
4. Westmoreland County

D. Microbial Source Tracking (MST)

Hampton Roads Projects - HRSD provided sampling and analytical services to:

1. City of Chesapeake (Southern Branch)
2. City of Hampton (New Market Creek)
3. City of Newport News (Southeast Newport News)
4. City of Norfolk (Mason Creek)
5. City of Suffolk (downtown)
6. City of Virginia Beach (Thalia Creek)
7. James City County

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: (9)

    a. 04/04/2023 – Nansemond Suffolk Academy Advanced Placement Environmental Science Class tour of the SWIFT Research Center
    b. 04/06/2023 – Community member tour of SWIFT Research Center
    c. 04/13/2023 - Cape Henry High School Science Class tour
    d. 04/18/2023 - Hampton High School Science Students in depth Central Environmental Laboratory (CEL) overview and shadowing
    e. 04/21/2023 - 2nd Annual Fear to Hope Symposium at CNU. Reviewed student poster presentations on science topics.
    f. 04/24/2023 - National Water Quality Monitoring Conference (NWQMC) participant tour of the Water Quality Services Building
    g. 04/24/2023 – NWQMC participant tour of the SWIFT Research Center and Extensometer Monitoring Station
    h. Throughout the month of April- Ocean Lakes High School Advanced Science Capstone Project planning with two students
    i. WQ staff attended several Earth Day events during the month including events at Mount Trashmore and Norfolk Naval Shipyard.

2. Community Partners: (9)

    a. City of Chesapeake
    b. City of Virginia Beach
    c. ERP Knitting Mill Creek Steering Committee
    d. Hampton Roads Planning District Commission (HRPDC) Fats, Oils & Grease (FOG) Subcommittee
    e. Lynnhaven River Now Citizen Monitoring project
    f. US Fish and Wildlife Service
    g. VDH – Chesapeake Local Health District
    h. VDH – Division of Shellfish Sanitation
    i. VDH – Wastewater Surveillance Program

3. Discharge Monitoring Report (DMR) Summary and Items of Interest: Effluent and Air Emissions Summary

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2023
M-1.4a	Training During Work Hours Per Full Time Employee (120) (Current Month)	Total Hours / # FTE	2.87
M-1.4b	Total Training During Work Hours Per Full Time Employee (120) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	52.49
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	1
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	10:51,408
M-3.2	Odor Complaints	#	18
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	186,727,985
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	16%
M-5.2	Educational and Outreach Events	#	9
M-5.3	Community Partners	#	9
	Average Daily Flow	Total MGD for all Treatment Plants	136.70
	Pretreatment Related System Issues	#	0

Respectfully submitted,
Jamie Heisig-Mitchell
Director of Water Quality

EFFLUENT SUMMARY FOR APRIL 2023

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBl	ENTERO #/UBl	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	8.47	47%	4	7.9	1	1	0.54	0.41	3.5	3.6	3
ATLANTIC	41.11	76%	17	13	3	1	NA	NA	NA	NA	21
BOAT HARBOR	10.39	42%	9	3.6	1	1	0.24	0.44	27	25	6
CENT. MIDDLESEX	0.010	41%	<2	3.2	<1	1	NA	NA	NA	NA	NA
JAMES RIVER	12.13	61%	7	5.7	2	1	0.38	0.50	11	11	20
KING WILLIAM	0.062	62%	<2	<1.0	NA	1	<0.05	0.031	1.4	1.9	NA
NANSEMOND	15.59	52%	4	8.1	1	<1	0.63	0.54	4.6	4.3	3
NASSAWADOX	0.013	13%	3	15	1	2	0.46	0.38	18	16	NA
ONANCOCK	0.208	28%	<2	<1.0	<1	1	0.10	0.10	1.2	1.4	NA
URBANNA	0.050	50%	1	6.9	2	2	4.2	3.5	10	12	NA
VIP	27.47	69%	4	3.1	2	1	0.29	0.25	3.8	3.8	4
WEST POINT	0.359	60%	23	17	3	4	3.6	3.0	21	20	0
WILLIAMSBURG	8.48	38%	4	3.5	4	2	1.1	0.78	3.6	2.7	29
YORK RIVER	12.37	82%	2	0.29	1	<1	0.27	0.26	5.5	5.0	1
	136.70										

	% of Capacity
North Shore	53%
South Shore	65%
Small Communities*	41%

Tributary Summary

	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY23		YTD	Projection CY23	
Tributaries	%	Lbs	%	%	Lbs	%
James River	19%	1,950,261	55%	12%	213,019	68%
York River	25%	174,715	61%	24%	12,338	64%
Rappahannock	18%	NA	NA	17%	NA	NA

Permit Exceedances:Total Possible Exceedances, FY23 to Date: 10:51,408

Pounds of Pollutants Removed in FY23 to Date: 186,727,985

Pollutant Lbs Discharged/Permitted Discharge FY23 to Date: 16%

*Small Communities includes Eastern Shore

Rainfall (inch)

	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	6.32"	3.95"	4.43"
Normal for Month	4.22"	3.32"	4.09"
Year to Date Total	13.95"	11.58"	10.68"
Normal for YTD	14.45"	12.69"	13.75"

AIR EMISSIONS SUMMARY FOR APRIL 2023

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
MHI PLANT	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
ARMY BASE	0	1	0	0	0	0	0	1	67	83	0
BOAT HARBOR	0	0	0	n/a	0	0	0	2	13	100	0
VIP	0	0	0	n/a	0	0	0	2	22	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	21	96	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	2
DEQ Request for Corrective Action:	0
DEQ Warning Letter:	0
DEQ Notice of Violation:	0
Other Air Permit Deviations:	0
Odor Complaints Received:	18
HRSD Odor Scrubber H2S Exceptions:	3

Items of Interest – April 2023

MULTIPLE HEARTH INCINERATION (MHI)

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 83%.

The MHIs had one deviation from the required 129 SSI rule minimum operating parameters, four (4) minor bypass events (<60 minute), and two reportable bypass events that lasted more than an hour.

Army Base had a malfunction that required the use of the MHI emergency bypass stack for more than one hour on April 18. The event was caused when the ID fan malfunctioned. E&I was called in to resolve the issue with the fan and help the operator restore normal MHI operation. The event lasted one hour and 59 minutes and was reported to DEQ per the Title V permit prompt notification requirements.

Williamsburg had a malfunction that required the use of the MHI emergency bypass stack for more than one hour on April 30. A loss of power to the solids handling building occurred wherein E&I was called in to restore power. The event lasted one hour and 47 minutes and was reported to DEQ accordingly.

Army Base successfully completed their 129 emissions limits stack test on April 26. Field test parameters demonstrated compliance including HCl via field Method 320. Lab results are pending.

Submitted Army Base's quarterly HCl report and Boat Harbor's compliant MHI 129 stack test report to DEQ.

AIR PERMITS and ODOR CONTROL.

Submitted to DEQ the annual thruput updates, emission inventories, and emission statements for the four MHI Plants.

Submitted to DEQ the 129 annual compliance certifications for the four MHI Plants.

DEQ air compliance inspected Army Base on April 26. The facility was deemed in compliance with their Title V federal operating permit.

Submitted additional permit application information to DEQ in support of VIP's Title V permit renewal.

Three (3) minor odor control scrubber system hydrogen sulfide (H_2S) exceptions were measured and documented in April.

Atlantic Plant received eighteen (18) odor complaints from Ocean Lakes neighbors. Plant Staff and TSD responded to all complaints and followed up with our neighbors with investigation results as documented and relayed to them accordingly.

TREATMENT
DEQ was notified of the following reportable events:

Nansemond
On April 3, a contractor hit a 2-inch PVC Non-Potable Water (NPW) line while excavating resulting in a release of 18,000 gallons of chlorinated NPW. The NPW system was shut down and the PVC line was repaired. Approximately 8,500 gallons were recovered; the remaining 9500 gallons of NPW soaked into the ground/entered a storm drain.

On April 15, a Plant Operator secured the emergency generator required to run the final effluent pumps, causing the effluent wet well to fill up, and the effluent channel to overflow. A different emergency generator was started to run the effluent pumps, lowering the wet well level and ceasing the release. Approximately 15,000 gallons of fully treated final effluent (FNE) soaked into the ground and could not be recovered.

On April 30, the Nansemond TP rain gauge recorded 1.60” from a rain event that increased plant flows by approximately 20 MGD. Two reportable events occurred.

- Three consecutive 30-minute contact tank residuals less than 0.50 mg/l were recorded. These exceptions were due to the sodium hypochlorite feed controller not keeping up with the demand during high flow. Additional sodium hypochlorite pumps were placed into service and the 30-minute residual recovered. Additional operating procedures will be put in place to ensure future compliance.
- All flow was diverted to the effluent holding pond as a result of the low contact tank residual, but the pond had already partly filled due to the high flow condition. The pond quickly filled to the maximum level, and flow was automatically diverted back to the river with the surge of flow causing the two in-service effluent pumps to start up at the same time. These pumps pulled the effluent wet well down and turned off, starting a protective 30-minute cooldown timer on the pump motors which is unable to be bypassed. During this time the effluent channel overflowed and 50,000 gallons of final effluent was released onto the ground and was unrecoverable. After the cooldown period for the effluent pump motors cleared, operators started one effluent pump ceasing the effluent channel overflow.

SYSTEM
On April 30, Significant rainfall resulted in increased system flows and pressures at the North Avenue Pump Station in Newport News. Hilton School Pump Station saw a maximum rainfall of 0.81” in 15 minutes with a total of 1.74” falling in 1 hour; the total rainfall recorded for the rain event was 2.8”. Pumps and the pump station were verified to be operating properly. Approximately 7,050 gallons of raw wastewater overflowed from the wet well hatch and released onto the ground draining to the James River.

2023 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56	0.02	NA	NA	0.06								
	TKN	3.0	NA	<0.50	NA	1.7								
King William	Zinc	*	54	NA	NA	35								
	TKN	3.0	1.9	1.1	1.6	0.76								
Nassawadox Riverside	Cadmium	2.0	<0.50	<0.50	<0.50	<0.50								
	Copper	23	<5.0	<5.0	<5.0	5.2								
	Nickel	38	14	18	14	<10								
	Zinc	150	<50	<50	<50	<50								
	Ammonia	1.7	0.31	0.67	0.44	0.14								
Onancock	Copper	12	2.2	NA	NA	0.80								
	Ammonia	0.90, 2.0	0.04	0.03	0.03	0.08								
Surry County	Copper	5.9	2.0	NA	NA	NA								
	Zinc	56	24	NA	NA	NA								
	Ammonia	0.77	NA	NA	NA	NA								
	TKN	3.0	NA	NA	NA	NA								
Urbanna	Ammonia	3.83, 9.08	0.04	0.16	0.02	0.02								

*No limit. Treatment objective 53 ug/L

Units: TKN, Ammonia: mg/L. Metals: ug/L

2023 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	9.10	9.87	9.09	8.47									9.14	8.31
Atlantic	44.58	46.31	43.65	41.11									43.91	43.78
Boat Harbor	11.60	12.95	11.16	10.39									11.52	10.55
C.Middlesex	0.013	0.013	0.013	0.010									0.012	0.012
James River	12.46	13.31	11.87	12.13									12.44	12.02
King William	0.070	0.065	0.058	0.062									0.064	0.068
Lawnes Point	0.000	0.000	0.000	0.000									0.000	0.000
Nansemond	15.97	16.61	15.77	15.59									15.98	15.26
Nassawadox	0.016	0.015	0.013	0.013									0.014	0.014
Onancock	0.170	0.194	0.207	0.208									0.195	0.175
Surry, County	0.011	0.000	0.000	0.000									0.003	0.023
Surry, Town	0.000	0.000	0.000	0.000									0.000	0.015
Urbanna	0.035	0.039	0.046	0.050									0.042	0.055
VIP	27.26	30.12	27.54	27.47									28.10	23.84
West Point	0.466	0.470	0.389	0.359									0.421	0.357
Williamsburg	7.73	8.09	7.96	8.48									8.06	8.75
York River	12.69	13.74	12.00	12.37									12.70	11.42
North Shore	44.47	48.09	42.99	43.36									44.73	42.75
South Shore	96.91	102.91	96.06	92.64									97.13	91.19
Small Communities	0.78	0.80	0.73	0.70									0.75	0.72
TOTAL	142.16	151.79	139.78	136.70									142.61	134.65

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

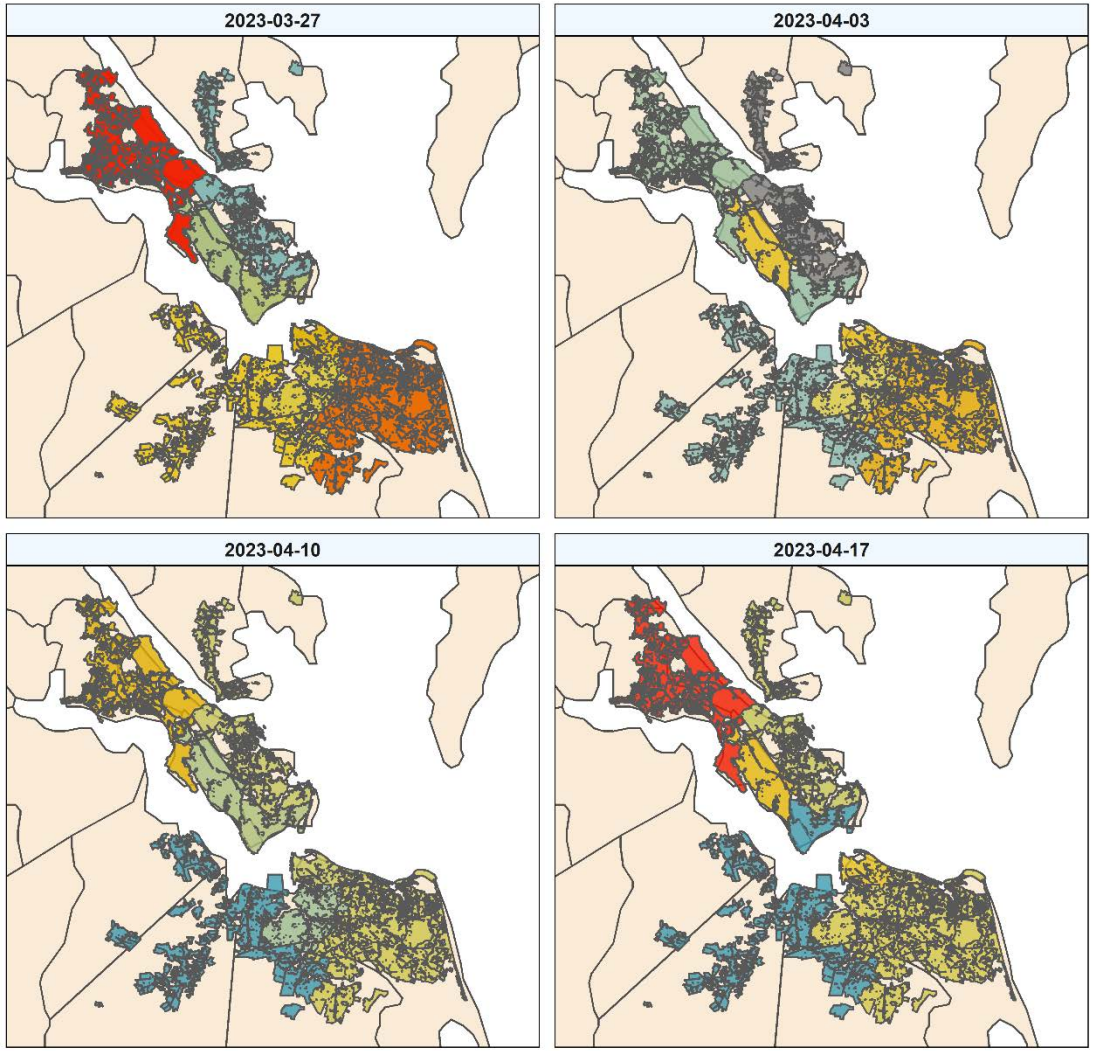
HRSD

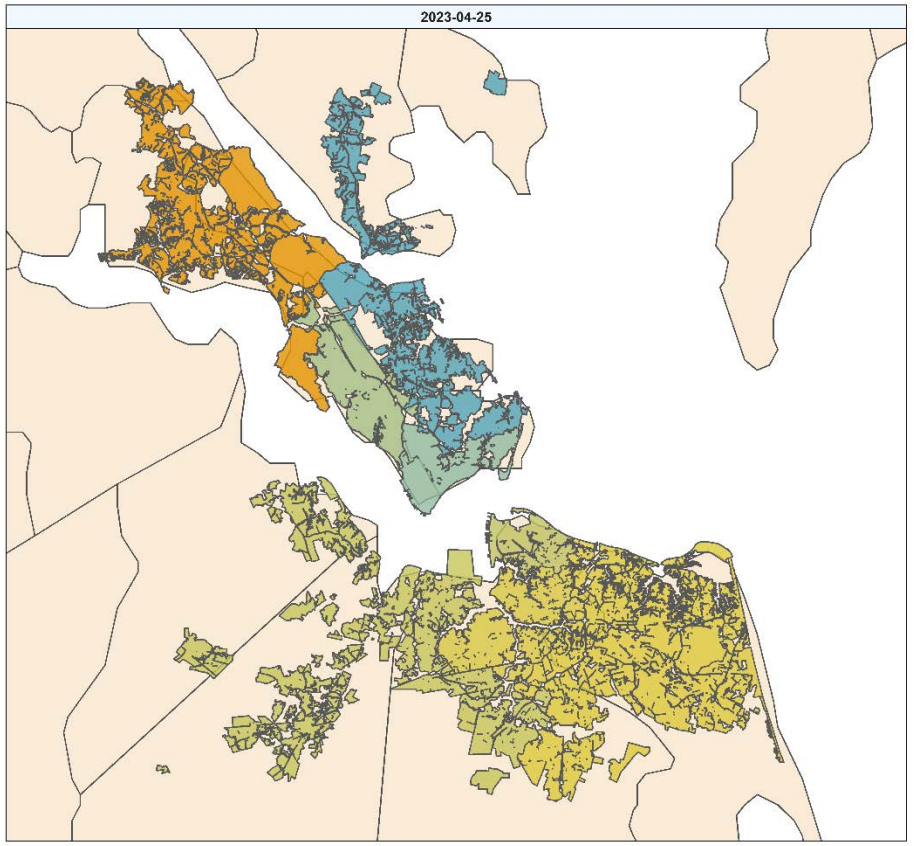
Cleaning wastewater every day for a better Bay.

Wastewater Surveillance Commission Report

April 2023

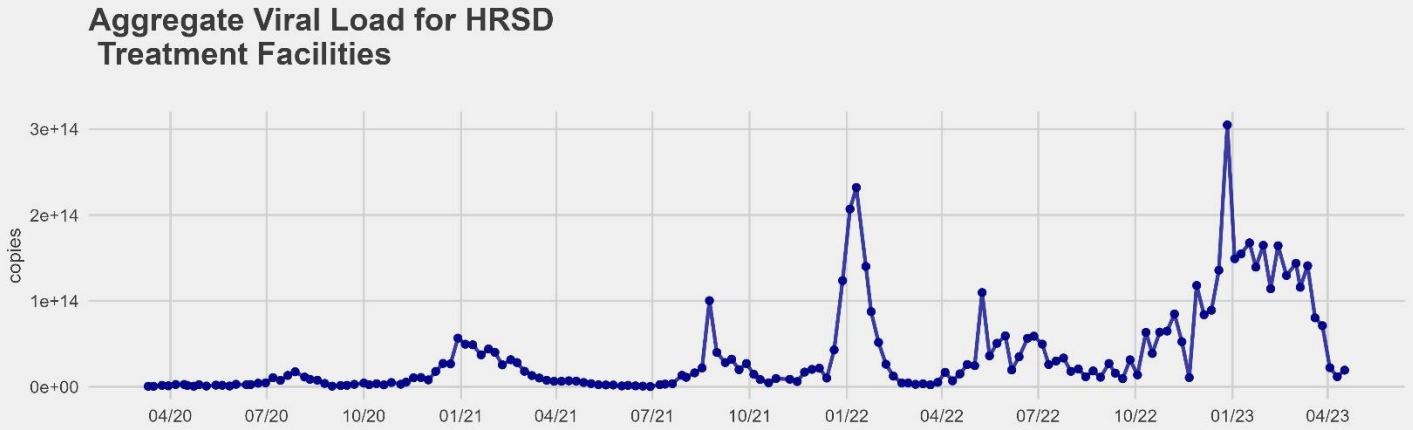
SARS-CoV-2 Most Recent 5 Weeks

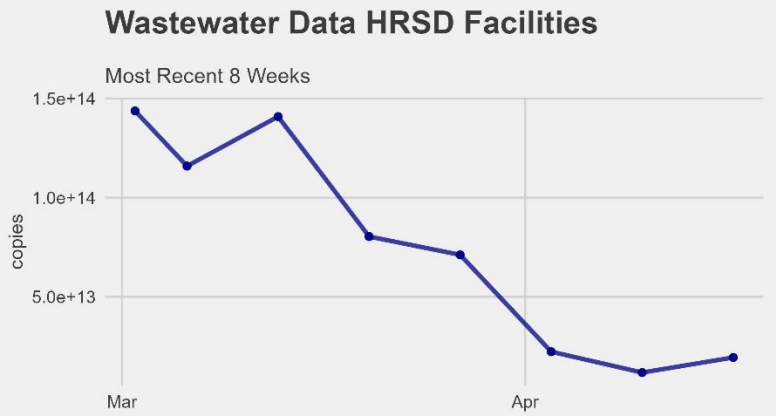


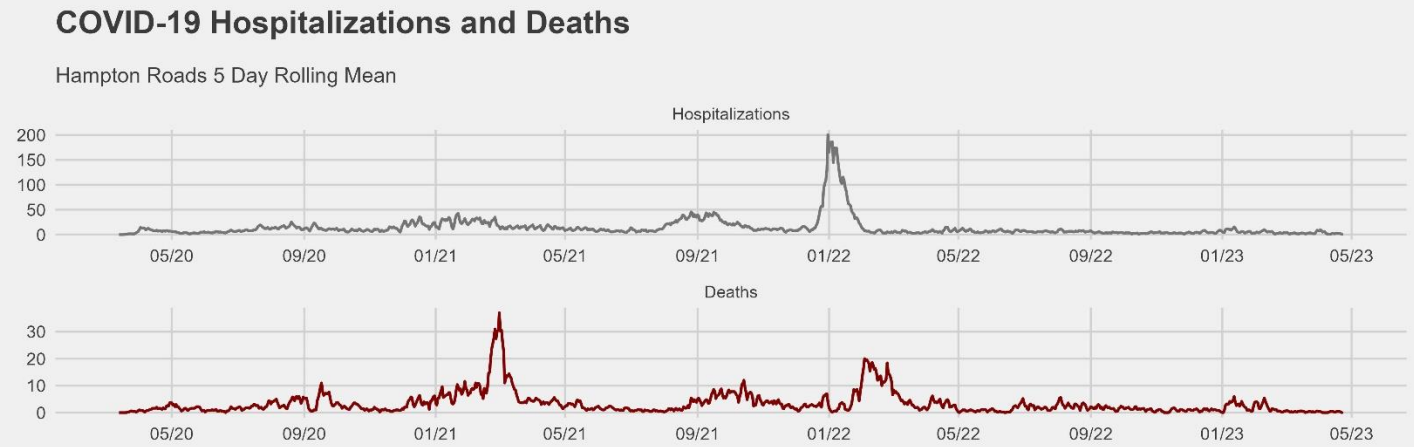


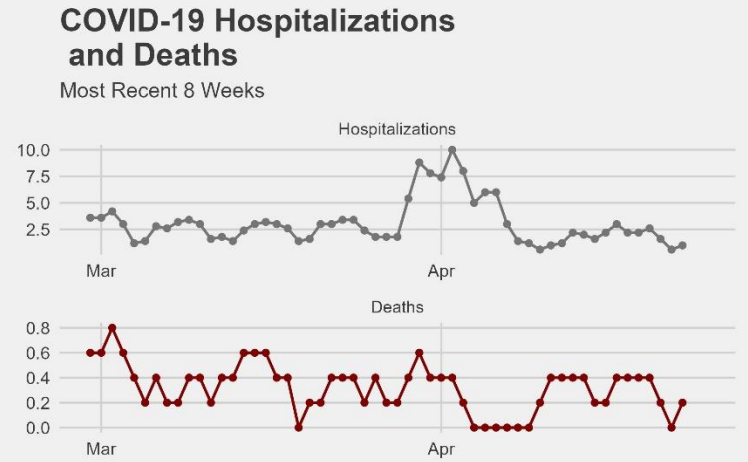
** Note that the scale for this heatmap is now based on the range of the most recent 5 weeks of data.

Regional Viral Load, Hospitalizations, and Deaths

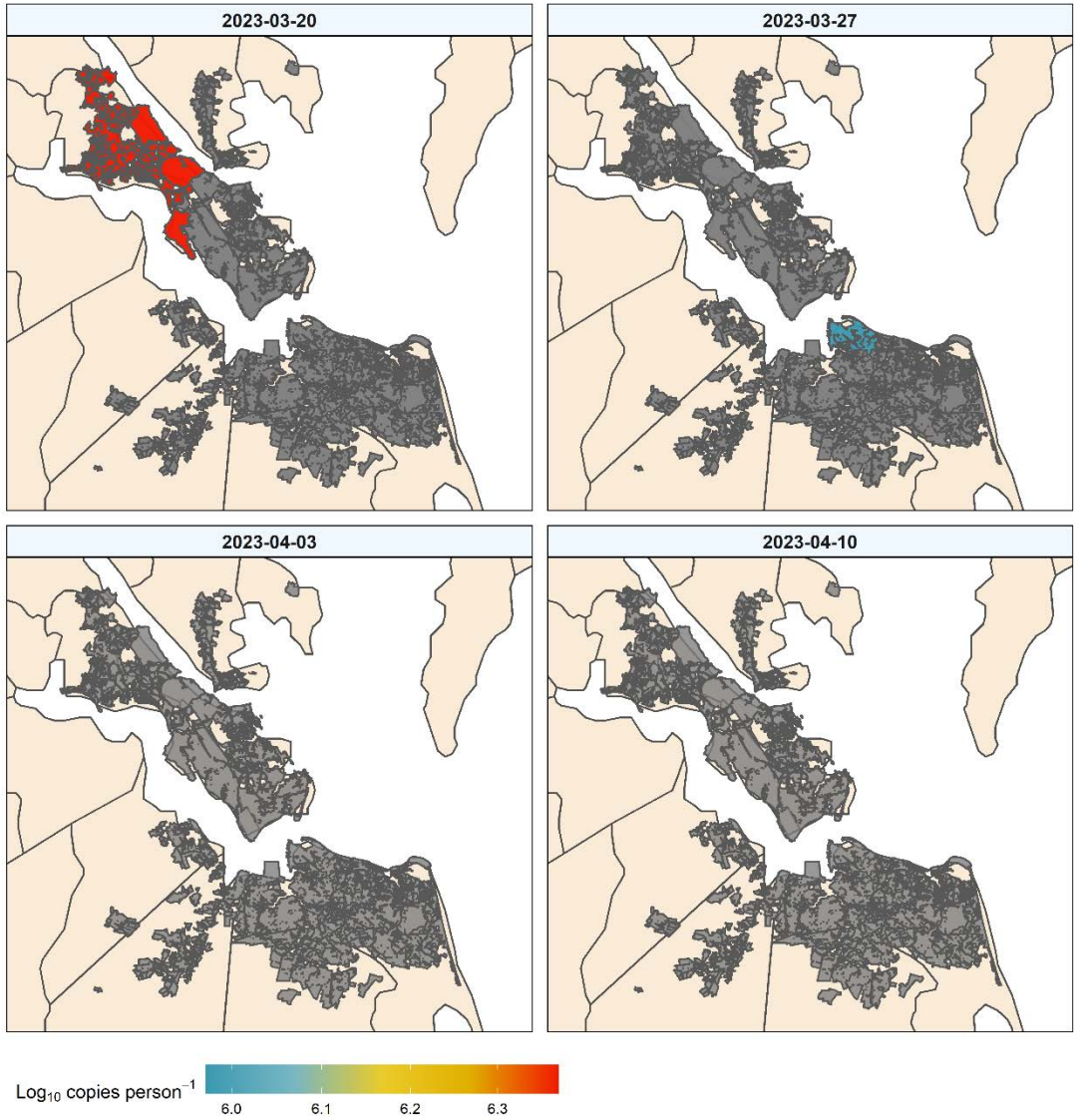








Influenza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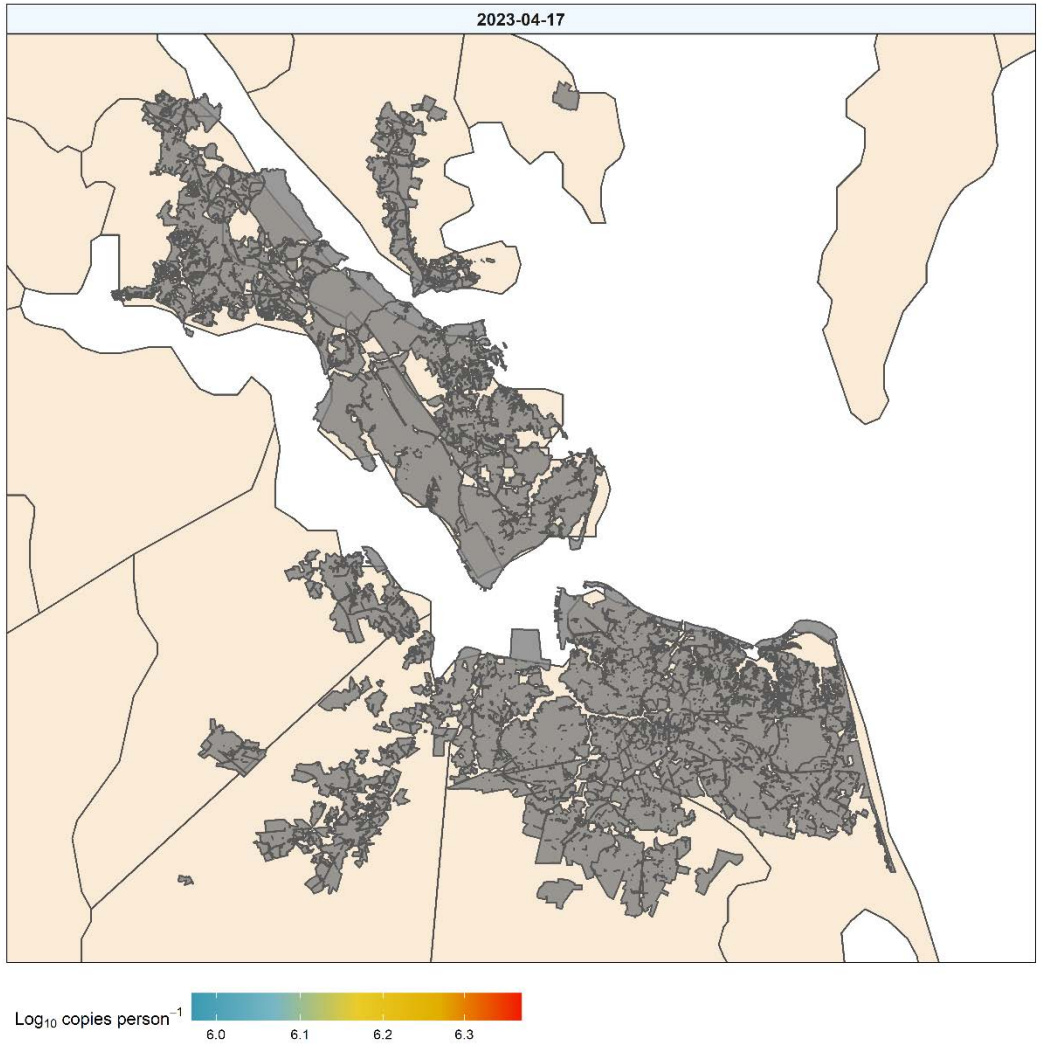
6.3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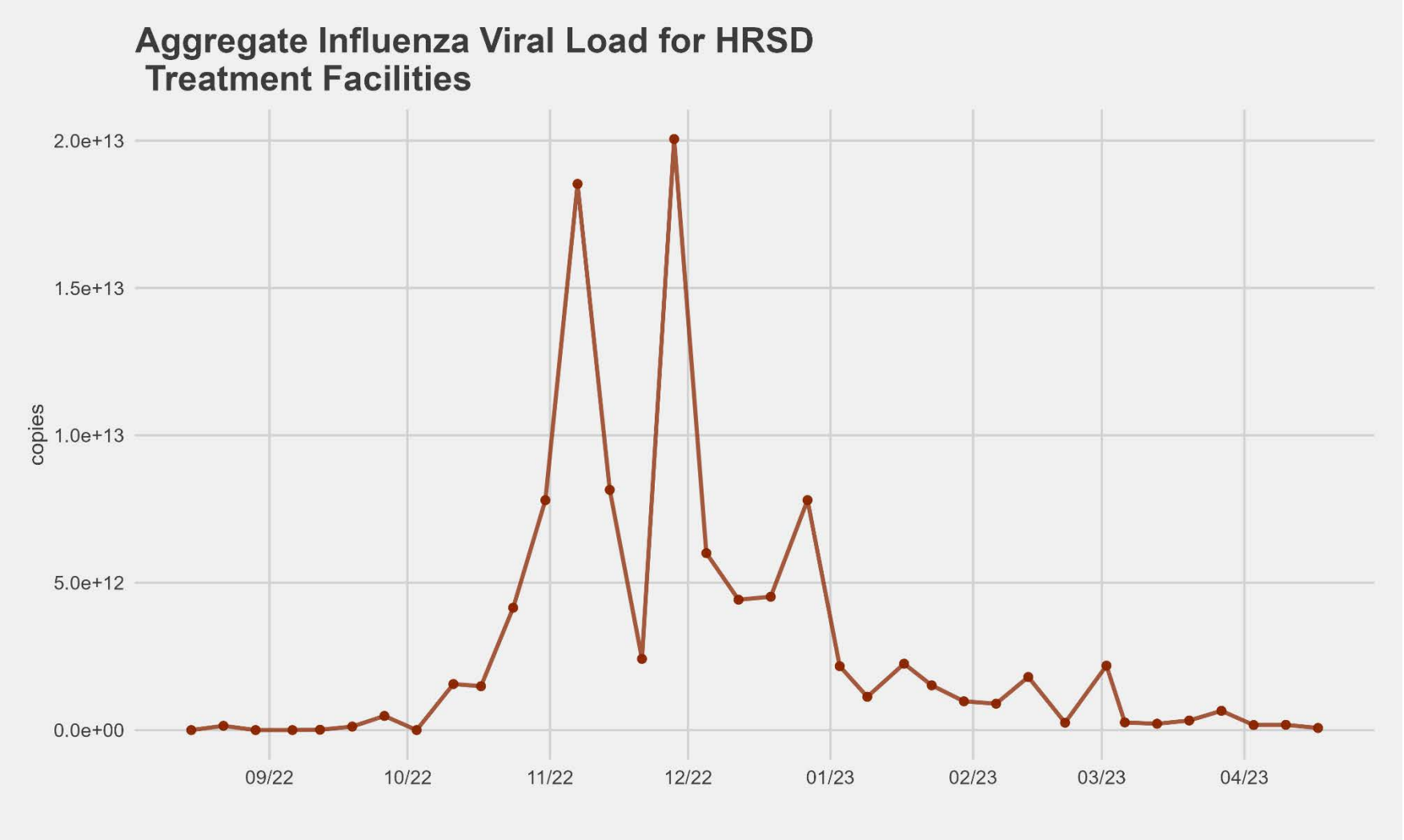
Influenza


Aggregate Influenza Viral Load for HRSD Treatment Facilities
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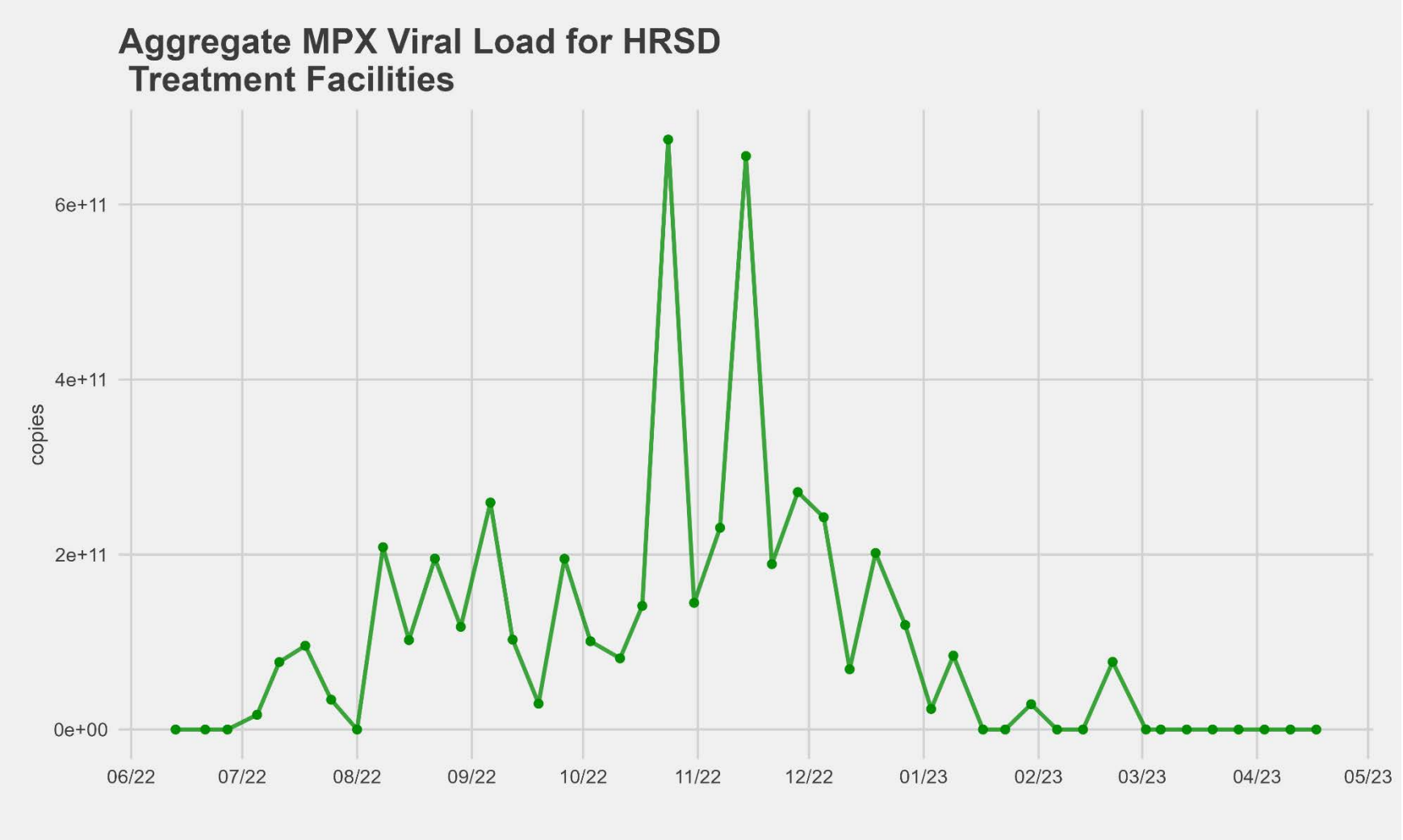
03/23
04/23

MPOX


Aggregate MPX Viral Load for HRSD Treatment Facilities
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05/23

Hampton Roads Sanitation District
Internal Audit Status
April 30, 2023

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

I. Projects in Process

Remote Access

- **Tasks Completed (April 2023)**
  - Followed up on initial document request and next steps.
  - Began drafting risk and control matrix.
- **Upcoming Tasks (May 2023)**
  - Follow up on initial document request.
  - Schedule walkthrough meetings.
  - Begin drafting report background.

Personally Identifiable Information

- **Tasks Completed (April 2023)**
  - Follow up with POCs regarding documentation requested.
  - Continue documenting fieldwork procedures.
  - Begin drafting report.
- **Upcoming Tasks (May 2023)**
  - Continue documenting fieldwork procedures.
  - Consolidate follow up questions.
  - Continue drafting report.
  - Schedule HRSD on-site visit (scheduled for week of 5/8).

****** Completed in April 2023 ******

Risk Assessment

- **Tasks Completed (April 2023)**
  - Finalized risk assessment and audit plan.
  - Presented planned internal audit plan to HRSD and Commission (4/25).

Grants Management

- **Tasks Completed (April 2023)**
  - Finalized and closed out project.

Family Medical Leave Act (FMLA)

- **Tasks Completed (April 2023)**
  - Provided final report to HRSD.

II. Upcoming Projects

- Accounts Payable and ProCards: June 2023
- Design and Construction Estimating: September 2023

III. Management Action Plan Status

SC&H performs on-going management action plan (MAP) monitoring for completed internal audits/projects. SC&H begins MAP follow-up approximately one year following the completion of each audit and periodically follows up until conclusion.

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.

			Recommendations		
Audit	**Report Date**	**Next Follow-up**	**Closed**	**Open**	**Total**
SWIFT Program	2/24/2021	May 2023	11	1	12
Succession Planning	6/4/2021	July 2023	1	3	4
Safety Division	9/12/19	September 2023	2	1	3
Freedom of Information Act	12/21/2022	December 2023	0	1	1
D&C: CIP Project Management	5/11/16	Closed	13	0	13
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
Treatment Plant Operations	10/15/18	Closed	9	0	9
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
Customer Care Division	7/26/19	Closed	4	0	4
Pollution Source Control	6/2/20	Closed	8	0	8
Fleet Services	2/24/2021	Closed	17	0	17
Biosolids Recycling	10/8/16	Closed	8	0	8
Unifier/ERP Integration	6/27/2022	Closed	4	0	4
Emergency Repairs	1/18/2022	Closed	3	0	3
		Totals	129	6	135

Hampton Roads Sanitation District

Internal Audit

Family and Medical Leave Act

April 18, 2023

Table of Contents

Executive Summary

SC&H conducted an internal audit of Hampton Roads Sanitation District's (HRSD) Family and Medical Leave Act function.

The Family and Medical Leave Act (FMLA) of 1993 is a United States Department of Labor (DOL), federally mandated, act that entitles eligible employees of covered employers to take unpaid, job-protected leave for specified family and medical reasons with continuation of group health insurance coverage under the same terms and conditions as if the employee had not taken leave.

The following provides a summary of the internal audit's objectives, process, and results.

SC&H thanks HRSD's Human Resources and Accounting Divisions and their personnel, whose assistance, and availability were vital during the internal audit process.

Summary Objectives

A. Evaluate current HRSD FMLA processes, policies, and procedures to ensure compliance with applicable FMLA laws, rules, and regulations for qualifying event notification and receipt, qualifying event evaluation and determination, and event record retention.
B. Evaluate HRSD FMLA data between Oracle Enterprise Resource Planning (ERP) system and AdminEase (The Standards' platform for Short-Term Disability), and paper documentation to ensure accuracy and completeness for FMLA leave event entry, leave timekeeping, and leave calculations and monitoring.
C. Evaluate current HRSD Sick Leave/Annual Leave, PTO, Short-term Disability and Leave Donation processes to ensure compliance with applicable HRSD policies and procedures.

Internal Audit Process

SC&H conducted the internal audit with the following three-phased approach.

1. Planning: Understand processes, evaluate risks/controls, and develop audit program
2. Fieldwork: Conduct evaluation procedures to achieve internal audit objectives
3. Reporting: Conclude internal audit and report results

SC&H will conduct a 4th phase (Follow Up) at a later time to review management action plans resulting from the internal audit's results.

Summary Results

The overall FMLA process appears to be functioning effectively, and HRSD is providing the support needed to staff members that have experienced an FMLA leave event. The processes include multiple reviews and approvals, records maintenance, and calculations that enables HRSD to mitigate risks associated with the management of FMLA Leave events.

Two observations are provided that identify opportunities for risk mitigation and FMLA function enhancements. These observations relate to 1) structured policy and procedural documentation and 2) consistent tracking of FMLA related tasks. Details are in the "Observations and Recommendations" section of this report.

Internal Audit Summary

Background

SC&H conducted an internal audit of Hampton Roads Sanitation District's (HRSD) Family and Medical Leave Act (FMLA) function managed by HRSD's Human Resources and Accounting Divisions.

The United States Department of Labor (DOL) FMLA of 1993[1] entitles eligible employees of covered employers to take unpaid, job-protected leave for specified family and medical reasons with continuation of group health insurance coverage under the same terms and condition as if the employee had not taken leave. In accordance with FMLA, as amended in 2010[1], employees who have been employed for at least one year, and worked at least 1,250 hours during the preceding 12-month period, and are employed at a work site where HRSD employs at least 50 or more employees within a 75-mile radius of that work site are eligible for Family Medical Leave, Service Member Family Leave, and Qualifying Exigency Leave (collectively referred to as "FMLA Leave"). An employee who is eligible for FMLA Leave will be allotted 480 FMLA hours for use during a rolling 12-month period.

For employees not eligible for FMLA Leave, HRSD reviews business considerations and the individual circumstances involved for other possible leave options for the employee in need, such as workers compensation, short-term and long-term disability, etc. Short-term disability is a type of insurance that partially covers income for people who need to take time away from work because they are unable to perform job duties due to an illness or an injury. Except for those employees designated as "Key Employees," employees on FMLA Leave will be returned to the same or to an equivalent position. A Key Employee is a salaried, FMLA eligible employee who is among the highest paid 10% of all employees employed by the employer within 75 miles of the employee's worksite.

FMLA Criteria

All employees who meet the applicable eligibility requirements may be granted FMLA leave for a period of 12 weeks for the following qualifying events:

1. The birth of the employee's child and/or to order care for the child.
2. The placement of a child with the employee for adoption or foster care.
3. To care for a spouse, son, daughter, or parent who has a serious health condition.
4. A serious health condition that renders the employee incapable of performing the functions of their job.
5. Any Qualifying Exigency arising out of the fact that the spouse, son, daughter, or parent of the employee is covered active duty (or has been notified of an impending call or order to covered active duty) in the Armed Forces.

FMLA Request

When an employee or their supervisor identifies the need for an FMLA qualifying event, the employee provides a written or verbal notification to the Human Resources (HR) business partner within the Human Resources Division). The HR business partner reviews the notification and the requesting employee's status with HRSD to determine if the employee meets the eligibility requirements and the event qualifies for FMLA leave. The HR business partner also reviews the request to determine if the FMLA leave will be full or intermittent leave. Full FMLA Leave is granted when the employee on leave is out entirely, while intermittent FMLA leave is granted when an employee takes a few hours of FMLA

[1] https://www.dol.gov/agencies/whd/fmla/laws-and-regulations

periodically for various appointments or rehabilitation. An FMLA leave event can also be coupled with a short-term disability event. The HR business partner determines if the employee is eligible for FMLA, short-term disability, or both leave types. All requests are reviewed against HRSD FMLA policy, which is aligned with DOL FMLA guidelines.

If the employee is eligible and qualifies for FMLA Leave, the HR business partner provides the employee with a written notice within five business days. The written notice includes the HRSD FMLA letter, which is an internal document required for review and approval of an FMLA leave event, and the DOL FMLA form, which is a federal form required for all FMLA leave events. Once the employee requesting leave completes and returns the required forms and any supporting documentation to HR, the HR business partner enters the event into the Oracle ERP system, including the FMLA type, HR notification, approvals, and start/end dates, which helps HR monitor the FMLA leave the event. Once all information is reviewed and entered into the Oracle ERP system, all supporting documentation is locked and maintained in a secure area within the Human Resources Office to protect the employee's personal information.

FMLA Time Entry and Monitoring

Once an employee is approved for the usage of FMLA, that employee enters the FMLA leave hours type, "FMLA Leave" or "FMLA paid time off (PTO)," in their biweekly timecard equaling the amount of leave time taken. If the employee is unable to enter time, the employee's supervisor enters the time on behalf of the employee. When FMLA hours are submitted, the Oracle ERP system applies the time code concurrently with the employee's available sick, PTO, or annual leave types. This ensures that the employee is being paid while the employee is out and has available payable leave. Once time is entered, the payroll specialist in the Accounting division (Accounting) within the Finance department (Finance) processes the biweekly paycheck run. During the process, the payroll specialist identifies unique hours types utilized by all employees, which includes FMLA leave hours types. These unique hours types appear on the HR Verification Code report that is exported from the Oracle ERP system by the payroll specialist during the processing of a pay period. Unique hours types are categorized as any type of leave, outside of the normal 'Leave' or 'PTO' utilized by an employee. The payroll specialist sends the HR Verification Code report, which provides a listing of employees that utilized unique time codes, via email to the HR division, who reviews the report to ensure that the use of FMLA is appropriate for each employee identified. Once approved, the HR business partner notifies the payroll specialist of the approval and to continue the biweekly payroll process.

Throughout the life of an employee's FMLA leave event, the approving HR business partner monitors the hours utilized by the employee on leave. This includes reviewing the number of hours utilized to ensure it is aligned with the approved FMLA leave type, full or intermittent. It also includes making the employee aware of the total FMLA hours utilized and ensuring the event does not eclipse the federally allotted 480 FMLA hours per FMLA leave event within a rolling 12-month period.

Leave Donations

During the life of an FMLA leave event, the employee on leave may utilize all personal leave that is available. If an employee has utilized all paid leave types, other HRSD employees can choose to donate leave hours to the employee in need. As part of the ongoing monitoring of the leave hours, the HR business partner notifies the employee's supervisor/director requesting approval for potential leave donation. If approved, HR sends an organizational-wide email notifying all employees of a co-worker's qualified and approved request for leave donation. If an employee would like to donate, that employee completes the HRSD leave donation authorization form and provides to the HR business partner. The HR business partner then provides to the donations to the payroll specialist. The payroll specialist then

transfers the designated amount of leave in the Oracle ERP system and notifies both employees, as well as the respective supervisor/director of the completed leave donation.

Objectives and Scope

Objectives

The following objectives were established based on the internal audit planning procedures:

A. Evaluate current HRSD FMLA processes, policies, and procedures to ensure compliance with applicable FMLA laws, rules, and regulations for the following processes:
    1. FMLA qualifying event notification and receipt (30 calendar days advance notice)
    2. FMLA qualifying event evaluation and determination (5 business days after notice)
    3. FMLA leave event record retention
B. Evaluate HRSD FMLA data between the Oracle ERP system (and AdminEase, if applicable) and paper documentation to ensure accuracy and completeness for the following processes:
    1. FMLA leave event entry
    2. FMLA leave timekeeping
    3. FMLA leave calculations and monitoring
C. Evaluate current HRSD Sick leave, Annual leave, PTO, Short-term disability and/or Leave Donation processes to ensure compliance with applicable HRSD policies and procedures.

Scope

Internal audit procedures were conducted in 2022 and focused on the policies, procedures, and controls in place at the time of the audit. Documentation and samples selected were examined for the period of July 1, 2021 to June 30, 2022.

Methodology and Approach

SC&H performed the following procedures.

Process Walkthrough and Flowchart Creation

SC&H obtained and reviewed FMLA policy and procedural documentation, FMLA deliverables and management documentation, and screenshots of the Oracle ERP system. SC&H also met with members of HR in Talent Management and Accounting in Finance to conduct detailed process understanding discussions of in-scope FMLA functions. Based on the discussions and review of the procedural documentation, SC&H created flowcharts to document the following processes within the FMLA process:

1. FMLA leave request
2. Short term disability entry
3. Time entry
4. Leave donation
5. FMLA monitoring

Through the discussions with Human Resources, it was determined that a portion of the payroll process is critical to FMLA processes. As such, SC&H incorporated parts of a flowchart and risk and control matrix previously completed during the 2019 payroll internal audit.

FMLA Decision Tree and Waterfall Chart Creation

Following the review of current procedural documentation, SC&H developed an FMLA decision tree and waterfall chart. These documents aided in the illustration of the approval for FMLA Leave, and an employee's available pay status.

1. FMLA decision tree: This diagram shows the process in which HR employees receive a request for an FMLA leave event, and the standards that the requesting employee must meet to qualify for FMLA Leave.
2. FMLA waterfall chart: This chart illustrates the usage of different leave types, such as sick leave, annual leave, PTO, short-term disability, and/or donated PTO. It further shows what percentage of an employee's leave can be paid through the utilization of the employee's available leave types.

Risk Ranking and Audit Program Creation

Following the documentation of process steps, SC&H developed a risk and control matrix (RCM). The RCM aligns risks with controls to analyze the control environment and ranks the risks on perceived likelihood and impact. Based on the understanding of FMLA processes, risks, and related controls, SC&H developed an audit program to achieve the objectives described above. The audit program included detailed steps to address each objective with the goal of verifying the existence of sound internal controls and identifying opportunities for improvement.

Audit Program Execution

SC&H executed the audit program by completing the following tasks:

A. Verified the FMLA entry of a selected sample of FMLA leave events for necessary review and approval in a timely manner.
B. Verified the collection of the required following FMLA documentation:
    1. HRSD FMLA letter
    2. DOL FMLA form
    3. Medical notification
    4. Management approval
C. Verified the entry, review, and approval of FMLA hours types and utilization into the Oracle ERP system.
D. Verified the usage of FMLA and short-term disability entry of a selected sample of events for necessary review and approval in a timely manner.

Summary of Work

The FMLA processes appear to be functioning effectively. The practices performed by the Human Resources have strengths in processing records, maintaining, and monitoring FMLA leave events. After reviewing the FMLA process, SC&H concludes that opportunities exist to mitigate risks and improve processes based on exceptions identified during internal audit procedures. These opportunities are documented as two observations that can be incorporated into FMLA operations.

We appreciate the assistance and cooperation of the management and staff involved in HRSD's FMLA procedures. Please contact us if you have any questions or comments regarding any of the information contained in the internal audit report.

SC&H Group, Inc.

Matthew Simons, CPA, CIA, CGAP
Principal

Observations and Recommendations

Observation 1

Summary

HRSD does not have FMLA procedural documentation outlining the required processes, tasks, and responsibilities for completing an FMLA leave event.

Detail

SC&H requested policy and procedural documentation to understand HRSD's FMLA processes. Human Resources provided an overall policy document that outlined the requirements, guidelines, and high-level processes as required by FMLA. Upon follow up requests, it was confirmed that there is currently no procedural documentation for the HR business partners outlining the steps and processes for receiving, reviewing, approving, and entering an FMLA leave event into the Oracle ERP system.

Risks

Lack of formalized procedure documents could negatively impact:

1. The establishment and performance of necessary activities performed consistently, efficiently, and effectively in a controlled and timely manner.
   Refer to observation 2, which presents challenges resulting from the lack of procedural documents.
2. The ability to perform critical activities in the absence of the primary users.

Recommendation 1

Talent Management should create a detailed procedural document outlining the steps and processes for receiving, reviewing, approving, and entering an FMLA Leave event into the Oracle ERP system to ensure FMLA leave events are in compliance with regulatory and organizational standards. These procedures could include, but are not limited to, the following:

1. Completing the required FMLA notification and forms within required timelines.
2. Completing FMLA leave event entry into the Oracle ERP system completely and accurately.
3. Outlining the required internal and federal (Department of Labor) forms.
4. Ensuring required documentation is reviewed and retained.
5. Reviewing employee's allotted hours and applicable leave types for completeness and accuracy.
6. Reviewing employee donations of PTO/Annual Leave.
7. Performing internal quality controls and reviews.

Management Action Plan 1

Develop a standard operating procedure (SOP) for the FMLA process outlining the steps and processes for receiving, reviewing, approving, and entering a FMLA event into ERP.

Implementation Date/Period 1

July 1, 2023

Observation 2

Summary

HRSD FMLA data entry and review procedures were not consistently performed for FMLA leave events.

Detail

Employee FMLA Entry

SC&H requested a population of employees that received PTO/Annual Leave donations and a population of employees that had approved FMLA leave events. SC&H cross-referenced the two listings of employees and identified three employees that received PTO/Annual Leave donations but were not also on the FMLA leave event population, meaning the employee's FMLA leave event was not entered into the Oracle ERP system. SC&H confirmed, however, that the employee's FMLA leave was approved and the leave time entered on the biweekly time sheets.

Oracle ERP System FMLA Entry

For an approved FMLA leave event, Human Resources is required to enter multiple data points for each employee into the Oracle ERP system. This information includes, but is not limited to:

1. FMLA type
2. HR notified of event date
3. Notification sent date
4. Certification received date
5. FMLA start date
6. FMLA end Date

Five of eight tested samples did not have all required information entered into the Oracle ERP system.

FMLA Type Change

When an FMLA leave event is entered in the Oracle ERP system, Human Resources is required to designate whether or not the FMLA leave event is full FMLA leave or intermittent FMLA leave. When reviewing time entered for selected FMLA leave events, an employee that was designated as a full FMLA leave event was not entering 40 FMLA hours, as would be expected for a full FMLA leave event. When SC&H inquired with Human Resources, it was confirmed that the employee switched from full FMLA to intermittent FMLA during the life of the event, but it was not appropriately updated in the Oracle ERP system. Per discussion with HRSD Human Resources management, this is a limitation of the ERP system. HRSD is only able to enter full or intermittent when the FMLA event initiates. Once an employee returns to work from a full FMLA event, the status cannot be change.

FMLA Donation Evidence

When an employee has used all available PTO/Annual Leave/Sick leave hours types during an FMLA leave event, they can receive leave donations. Once management has approved the donation event and hours are donated, the payroll specialist transfers hours to the employee in need. SC&H requested evidence of donations transfers being approved by management and processed by the payroll specialist. However, evidence was not maintained or could not be obtained from the Oracle ERP system for these requests.

FMLA Hours Review

On a biweekly basis, all employees enter time worked, and employees on FMLA, short-term disability, and long-term disability enter those hour types into the Oracle ERP system. SC&H requested a

population of employees that received FMLA leave and pay periods in which the employee utilized FMLA leave. During the biweekly payroll process, the payroll specialist provides the HR Verification Code report to Human Resources with the associated dollar amounts for unique hours type(s) used by an employee. Human Resources staff review the total dollar values to ensure employees listed on the report utilized the correct time code, and that the amount entered appears appropriate.

SC&H selected timesheets and associated documentation for review, approval, and maintenance of the employee's leave. Per inspection of the HR Verification Code report exported from the Oracle ERP system during the timecard period selected, the FMLA Admin hours type did not appear on the report.

Risks

1. Missing or incomplete FMLA information within the Oracle ERP system could result in an employee exceeding the allotted hours for an FMLA leave event.
2. Missing or a lack documentation maintained could result in incorrect FMLA leave event approval, incorrect hours utilized, and a lack of appropriate information maintained and entered into the Oracle ERP system.
3. An employee could be incorrectly or inappropriately paid for time worked and/or missed as a result of an FMLA time code used.
4. HRSD could be financially liable if an FMLA leave event is mishandled leading to possible litigation and/or face regulatory penalties from the DOL for incorrect or incomplete FMLA leave events.

Recommendation 1

Human Resources should ensure all employees that are approved for an FMLA leave event are fully entered into the Oracle ERP system for tracking and monitoring purposes. Further, Human Resources should consider the following to enhance internal review procedures:

1. Implement a quality control review process where FMLA leave events entered into the Oracle ERP system are reviewed by a peer HR business partner.
2. Implement a periodic reconciliation process such as reviewing the FMLA leave events entered into the Oracle ERP system with the hard copy employee files stored within HR.
3. Implement a quality control review process where employees receiving PTO/Annual Leave donations are reviewed by a peer HR business partner.

These enhanced review processes should be included with associated steps in the procedural documentation recommended in observation 1.

Management Action Plan 1

The tracking of FMLA leave events is completely manual. Our plan is to outsource the tracking of FMLA to a third party. In the meantime, HR Staff members will remain diligent on enter in data when received.

The leave donation process is a combined effort with Human Resources and Payroll staff. HR staff collect the donations received and provide them to the Payroll staff. Payroll is responsible for distributing the leave in the appropriate leave banks and deducting from the donating employee. HR staff will work with the Payroll staff to develop a written process and quality control review.

Implementation Date/Period 1

September 2023

Recommendation 2

Per inquiry with Talent Management in late October 2022, SC&H confirmed via inquiry that the payroll specialist and Human Resources has since updated the HR Verification Code report within the Oracle ERP system to ensure all unique time entry codes are included and reviewed within the report. No further action is recommended.

Management Action Plan 2

Per the above, Payroll and Human Resources have updated the HR Verification code report to include all unique time entry codes and the identified issue has been resolved.

Implementation Date/Period 2

Completed

Recommendation 3

Talent Management and Payroll, with assistance from the relevant IT personal, should investigate updating the HR Verification Code report to include hours utilized by employees in addition to the dollar values (hours times rate) already in production. This would help allow for additional understanding of unique hours types used and added ability to ensure all hours appear appropriate. If an updated report cannot be developed, Human Resources and Payroll should investigate potentially adding a separate report outlining the requisite hours supporting the dollar values in the current HR Verification Code report.

Management Action Plan 3

The request to have hours added to the verification report received from payroll has already been made. The response is that it cannot be added to the report. HR Staff will continue to review the report as it is delivered and validate the information to the best of our ability.

Implementation Date/Period 3

Completed

Annual Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%	6.63%	6.78%	6.31%	16.04%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%	2.10%	3.08%	5.44%	1.64%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	85%	63%	78%	65%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60	95	74.52
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1	40.9	39.3	28.2	32.3
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	4.1	4.53
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34	1.3	1.09
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8	1.6	4.1	3.43
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%	123%	120%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%	155%	152%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887	29,596	28,722	28,030
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%	62%	61%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%	16%	15%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%	25%	22%	24%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%	7%	6%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7	1.75	1.89
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940	56,473,800	58,044,110	53,931,273
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277	2,408	2,459	2,439
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174	170	218
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102	82	136
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%	1.8%	1.3%	1.4%	1.4%
M-4.3	Total Labor Cost/MGD	Average Daily Flow		$1,028	$1,095	$1,174	$1,232	$1,249	$1,279	$1,246	$1,285	$1,423	$1,348	$1,487	$1,545	$1,542
M-4.4	Affordability	Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%	0.71%	0.67%	0.65%
M-4.5	Total Operating Cost/MGD	365/5-Year Average Daily Flow		$2,741	$2,970	$3,262	$3,316	$3,305	$3,526	$3,434	$3,592	$3,959	$3,823	$4,048	$4,311	$4,436
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A	53%	N/A	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%	138%	128%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32	27	39
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8	152.23	149.84	149.72	145.75
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24	53.1	48.49	54.04	38.18
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%	72%	84%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%	5.80%	6.03%	7.55%
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%	2.81%	2.66%	3.04%

*to be reported

Monthly Updated Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22	FY-23 Mar-23	FY-23 Apr-23
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	131.3	139.8	136.7
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	4	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	106%	106%	103%	101%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	106%	105%	111%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			$17,013,784	$17,359,488	$18,795,475	$20,524,316	$20,758,439	$22,444,273	$22,572,788	$22,243,447	$23,900,803	$27,335,100	$34,060,154	$39,539,639	$37,001,555	$38,120,278
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	32%	31%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	0	1
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	23:60879	9:60879	10:46267	10:51408
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	51	12	18
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	182,759,003	183,123,855	177,322,331	169,893,154	186,727,985
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	18%	14%	16%	16%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	687	89	79
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	125	22	25