REVISED HRSD Commission Meeting Agenda
9:00 a.m. – February 22, 2022

In Person for Commissioners and essential staff at the
HRSD South Shore Operations Center, 1434 Air Rail Avenue, Virginia Beach, VA 23451

Electronic attendance via Zoom for all others (link and passcode below agenda)

Public participation and observation of all HRSD Commission and committee meetings is available electronically via Zoom due to space limitations currently in place to protect the health of the Commissioners, staff and the public. To request accommodations to attend the meeting in-person, please send your request to Jennifer Cascio at jcascio@hrsd.com or by phone to 757.460.7003. Requests must be received by noon one business day prior to the meeting.

No.	Topic	Resource
	Call to Order	Elofson
	Roll Call of HRSD Commission	Cascio
1.	Consent Agenda	Henifin
	a. Approval of Minutes	
	b. Contract Awards	
	c. Task Orders	
	d. Sole Source	
	e. HRSD Use of Existing Competitively Awarded Contract Vehicle	
2.	Jefferson Avenue Interceptor Force Main Replacement Phase III Public Hearing on Determination of Public Need for Easements	Husselbee
3.	York River System Isolation Valve Installation and Replacement Public Hearing on Determination of Public Need for Easements	Husselbee
4.	Fiscal Year-2023 Budget Preview	Bernas
5.	Industrial Wastewater Discharge Regulations and Enforcement Response Plan Proposed Modifications	Martin
6.	James River Treatment Plant Shoreline Stabilization Cost Sharing Agreement	Husselbee
7.	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II Additional Appropriation, Comprehensive Agreement, and Proposal Compensation	Husselbee

No.	Topic	Resource
8.	Sanitary Sewer Project 1950 – Part 1 30-Inch Gravity Sewer New CIP, Initial Appropriation, Contract Award (>$200,000) and Task Order (>$200,000)	Husselbee
9.	South Shore Gravity Sewer Improvements Phase 1 Initial Appropriation	Husselbee
10.	SWIFT Research Center Full-Scale Managed Aquifer Recharge (MAR) Well Integration Additional Appropriation and Contract Change Order (>25%)	Husselbee
11.	Jefferson Avenue Interceptor Force Main Replacement Phase III Easement Acquisition	Husselbee
12.	Southeastern Public Service Authority (SPSA) Leachate Evaporation System Cost Sharing Agreement	Henifin
13.	COVID-19 Wastewater Surveillance Study Update	Curtis
14.	Unfinished Business	Henifin
15.	New Business	Henifin
16.	Commissioner Comments	
17.	Public Comments – A request to make public comments during the meeting via Zoom or written comments to be read into the minutes should be submitted to Jennifer Cascio by email to jcascio@hrsd.com or by phone to 757.460.7003 and must be received by noon one business day prior to the meeting.	Cascio
18.	Informational Items	Henifin
	a. Management Reports	
	b. Strategic Planning Metrics Summary	
	c. Emergency Declaration - James River Treatment Plant Advanced Nutrient Reduction Improvements (ANRI)	

Next Regular Commission Meeting Date: **March 22, 2022 at 1434 Air Rail Avenue, Virginia Beach**

Join Zoom Meeting

One tap mobile: US: +13017158592,,85272617724#,,,,*648894# or +13126266799,,85272617724#,,,,*648894#
https://us06web.zoom.us/j/85272617724?pwd=cWZ6bDVEaVV2S3ZiWW9YYW1XTmVlUT09
Meeting ID: 852 7261 7724
Passcode: 648894

Resource: Ted Henifin

AGENDA ITEM 1. – February 22, 2022

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 as amended

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

b. Contract Awards

1.	HRSD Rate Model Consulting Services	$662,000
2.	North and South Shore Pump Station Lawncare Services	$821,000
3.	Sewer Repairs and Condition Assessment Services	$18,000,000

c. Task Orders

1.	Biogas Alternatives Evaluation	$203,473
2.	Emerson Ovation Control System Engineering Services	$350,000
3.	SWIFT Program Management (Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II)	$1,650,787

d. Sole Source

1.	Speece Cone for Pure Oxygen Injection	

e. HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award

1.	GPS Fleet Management Services	$217,620

Resource: Jay Bernas

CONSENT AGENDA ITEM 1.b.1. – February 22, 2022

Subject: HRSD Rate Model Consulting Services
Contract Award (>$200,000)

Recommended Action: Award a contract for HRSD Rate Model Consulting Services to Environmental and Economic Consultants, Inc. (EEC, Inc.) in the estimated amount of $132,400 for year one with four annual renewal options and an estimated cumulative value in the amount of $662,000.

Type of Procurement: Sole Source

Annual consulting services were previously approved as a sole source with EEC, Inc. in January 2017.

HRSD Estimate: $132,400

Contract Description: This contract is an agreement for annual consulting services for review and updates of HRSD's general rates, charges, and fees. This is an estimated use contract.

Analysis of Cost: Annual contract includes fixed consultant labor rates which are fair and reasonable compared to similar consultant labor rates.

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.b.2. – February 22, 2022

Subject: North and South Shore Pump Station Lawncare Services Contract Award (>$200,000)

Recommended Action: Award a blanket purchase contract for North and South Shore Pump Station Lawncare Services to Green Alt DBA Green Alternatives LLC in the estimated amount of $164,200 for year one with four annual renewal options and an estimated cumulative value in the amount of $821,000.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Green Alt DBA Green Alternatives LLC	$164,200

HRSD Estimate: $92,000

Contract Description: This contract is an agreement for lawn maintenance services for various North Shore and South Shore pump stations. The services include weekly cutting, fertilizing and tree trimming as needed.

Analysis of Cost: HRSD estimate reflects the average spend over the last five year term agreement with the same Contractor. Pricing has been found to be fair and reasonable. Evaluation confirms increase is related to the current market conditions around fuel and labor costs.

Resource: Steve de Mik

CONSENT AGENDA ITEM 1.b.3. – February 22, 2022

Subject: Sewer Repairs and Condition Assessment Services Contract Award (>$200,000)

Recommended Action: Award a contract for Sewer Repairs and Condition Assessment Services to Bridgeman Civil Inc. and Tidewater Utility Construction Inc. This is a job order based estimated use contract for one year with two annual renewal options. Individual job orders are limited to $500,000. The potential annual maximum contract spend is $6,000,000 with a potential cumulative value of $18,000,000 per individual contract.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Bridgeman Civil Inc.	$13,178,500
Tidewater Utility Construction Inc.	$19,112,250

Engineer Estimate: $12,820,000

Contract Description: This contract is an agreement for force main and gravity sewer repairs and force main condition assessment and inspection services for HRSD. Contractors will provide all necessary labor, equipment, materials and supervision to perform services required by HRSD to respond to failures or potentially imminent failures and/or malfunctions of existing HRSD owned facilities, structures, sanitary sewer force mains, gravity sewer mains and appurtenances. Task orders will be assigned to either Bridgeman Civil Inc. or Tidewater Utility Construction Inc. based on HRSD needs. There are no guaranteed minimums. All task orders will be issued based on the unit prices submitted with the bids.

Analysis of Cost: The engineering consultant reviewed submitted bid prices and provided a bid gap analysis. The bid amount is determined by multiplying the bidder's unit price by the estimated number of units provided in the bid sheet for each bid item. The total sum of all bid items is the bidder's total bid amount.

CONSENT AGENDA ITEM 1.c.1. – February 22, 2022

Subject: Biogas Alternatives Evaluation
Task Order (>$200,000)

Recommended Action: Approve a task order with Gannett Fleming, Inc. in the amount of $203,473.

Contract Status:	Amount
Original Contract with Gannett Fleming, Inc.	$0
Total Value of Previous Task Orders	$0
Requested Task Order	$203,473
Total Value of All Task Orders	$203,473
Revised Contract Value	$203,473

Project Description: This project will develop and evaluate biogas use alternatives for the Atlantic Treatment Plant (ATP) and Nansemond Treatment Plant (NTP). At the conclusion of the project, a Recommended Alternative and Implementation Plan Technical Memorandum will be prepared by Gannett Fleming, Inc. which will guide the development of future capital projects aimed at improving the economic and operational sustainability of beneficial biogas use.

The ATP and NTP have been selected for this evaluation due to their relative scale compared with other HRSD Treatment Plants with Anaerobic Digesters (i.e., James River and York River Treatment Plants), though the knowledge gained through this project may provide useful guidance for future beneficial use of biogas at those facilities as well.

Task Order Description: The task order will provide a review of existing HRSD operations pertaining to biogas use at the ATP and NTP. Benchmark life-cycle costing will be developed for existing biogas use to provide a basis for comparison of developed alternative concepts.

The following alternatives will be considered, depending on the availability of natural gas utility service at each Treatment Plant and the status of biogas use. For each alternative, a conceptual site plan and building layout, capital, operations and maintenance (O&M) (including relevant environmental credits/attributes), 10-year life cycle cost estimate, and an assessment of the non-financial criteria will be performed and documented in Technical Memoranda:

1. Combined Heat and Power (CHP): Conversion of biogas to electrical energy through an engine-driven generator coupled with exhaust heat recovery, as applicable.

2. Compressed Natural Gas (CNG): Conversion of biogas to a high pressure compressed fuel comprised of mostly methane and other trace gasses. This product is most suitable for fleet fueling and as defined in this study, does not explicitly require a connection to the natural gas utility pipeline.

3. Renewable Natural Gas (RNG): Conversion of biogas to a moderately compressed fuel comprised of mostly methane and other trace gasses. This product is a direct replacement for utility natural gas and is of suitable quality to be fed into the utility pipeline.

These evaluations will be described in Technical Memoranda and presentation materials that will allow HRSD to continue to hone the evaluation and conduct sensitivity/risk analysis as project costs are clarified and energy and energy credit markets change over time.

At the conclusion of the project, a Project Executive Summary detailing the recommended alternatives, Class 5 cost estimate, and recommended implementation plan will be developed. This document will be used as a reference document for planning, budgeting, and scheduling of related future Capital Projects.

Analysis of Cost: The cost for this task order is based on the negotiated and approved contract rates within the General Engineering Services contract and will be billed to the Operations Department Operating Director's budget.

Resource: Steve de Mik

CONSENT AGENDA ITEM 1.c.2. – February 22, 2022

Subject: Emerson Ovation Control System Engineering Services
Task Order (>$200,000)

Recommended Action: Approve a task order with Emerson Process Management Power & Water Solutions Inc. in the amount of $350,000.

Type of Procurement: Sole Source

All parts and services were previously approved as a sole source with Emerson Process Management Power & Water Solutions Inc. on January 27, 2015.

Task Order Description: This task order will supplement staff's efforts on high priority projects by providing field engineering services for control system programming (i.e. control logic) and graphics development for the Emerson Ovation Control Systems at HRSD's treatment facilities.

Analysis of Cost: The cost for this task order is based on negotiated and approved contract rates in accordance with the Preferred Customer Agreement (PCA).

Resource: Bruce Husselbee

CONSENT AGENDA ITEM 1.c.3. – February 22, 2022

Subject: SWIFT Program Management (Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II)
Task Order (>$200,000)

Recommended Action: Approve a task order with AECOM in the amount of $1,650,787.

CIP Project: GN016320

Budget	$80,000,000
Previous Expenditures and Encumbrances	($23,942,107)
Available Balance	$56,057,893

Contract Status:	Amount
Original Contract with AECOM	$5,264,440
Total Value of Previous Task Orders	$18,453,038
Requested Task Order	$1,650,787
Total Value of All Task Orders	$20,103,825
Revised Contract Value	$25,368,265
Engineering Services as % of Construction	0.7%

Project Description: The SWIFT Full Scale Implementation Program (FSIP) Management team will manage the delivery of the advanced water treatment facilities to take HRSD's already highly treated wastewater and produce SWIFT water. The Program Management team may also deliver 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.

Task Order Description: This task order will provide Owner's Consultant Services during the design phase of the Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II (NP013820) design-build project. Owner's Consultant Services are intended to provide support to HRSD by engaging technical experts to review deliverables and change requests submitted by the design-builder for conformance with the Contract Documents, Basis of Design Report, HRSD Design & Construction Standards, and general design best practices and engaging program management team members to provide project delivery support, document management, cost estimate reviews, and schedule submittal reviews. The expected duration of this project phase is 12 months.

Analysis of Cost: The cost for this task order is based on a detailed negotiated scope of work for the design phase support efforts. The proposed fee is 0.7% of the estimated construction cost for the project. This ratio for Owner's Consultant services compares well with other HRSD Design-Build projects, which ranged from 0.26% to 1.63% of construction cost for Owner's Consultant fees during design phase. This task order will be issued as an amendment to the Professional Services Agreement with AECOM for SWIFT Full Scale Implementation. The total hours budgeted are appropriate for the scope proposed for this task order and the labor rates for each category in the proposed fee are consistent with the rates structure in the Agreement, as approved for FY-2022.

Design-Build Schedule:		
	Selection of Design-Build firm	February 2022
	Stipulated Fixed Final Price	February 2023
	Construction Complete	September 2025

Resource: Charles Bott

CONSENT AGENDA ITEM 1.d.1 – February 22, 2022

Subject: Speece Cone for Pure Oxygen Injection
Sole Source (>$10,000)

Recommended Action: Approve the use of Speece Cones for pure oxygen injection provided by Sherwood Logan & Associates, Inc. at all HRSD facilities. Sherwood Logan & Associates, Inc. is the authorized sales representative for Eco Oxygen Technologies, LLC manufactured Speece Cones.

CIP Project: GN0162200

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: This justification is for the purchase of a Speece Cone for pure oxygen injection to boost the dissolved oxygen (DO) upstream of the SWIFT Research Center (SRC) granular activated carbon (GAC) contactors. There are other potential applications of this technology at HRSD beyond the SRC including full-scale SWIFT facilities and collection/interceptor system odor control.

Hazen and Sawyer, PC (Hazen) has reviewed alternatives for adding dissolved oxygen into the GAC contactor influent at the SRC. After reviewing several alternatives, it was concluded that a Speece Cone is the only possible solution for this application due to the low head availability and the need for complete oxygen transfer to avoid an offgas system. Other oxygen injection systems (e.g. sidestream) are not compatible with the hydraulic conditions at the SRC. Hazen researched suppliers for injection cones and have confirmed that Eco Oxygen Technologies, LLC (ECO2) is the only manufacturer of injection equipment that meets the specifications for flow and pressure at the SRC. ECO2 holds an exclusive license for Speece Cones used for oxygen transfer in water and wastewater treatment applications.

Resource: Don Corrado

CONSENT AGENDA ITEM 1.e.1 – February 22, 2022

Subject: GPS Fleet Management Services
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award (>$200,000)

Recommended Actions:

a. Approve the use of the Sourcewell Contract #020221-GEO for Fleet Management.

b. Award a blanket purchase contract for GPS Fleet Management Services to Fleetistics in the estimated amount of $72,540 for year one with two annual renewal options and an estimated cumulative value in the amount of $217,620.

HRSD Estimate: $67,000

Contract Description: This contract provides GPS fleet management and vehicle information services that monitor speed, driving habits and location information of HRSD owned vehicles.

Sourcewell competitively solicited this cooperative contract solution. HRSD is eligible to use this competitively bid contract.

Analysis of Cost: By utilizing the cooperative contract through Sourcewell, HRSD is receiving 24 percent cost savings.

AGENDA ITEM 2. – February 22, 2022

Subject: Jefferson Avenue Interceptor Force Main Replacement Phase III
Public Hearing on Determination of Public Need for Easement Acquisition

Recommended Action: Conduct public hearing.

CIP Project: JR011730

Project Description: This project will replace approximately 9,000 linear feet of 12-inch, 14-inch and 16-inch HRSD force main (FM) with a new 30-inch force main from the intersection of Route 171 (Oyster Point Road) and Jefferson Avenue to a connection with the existing force main located northwest of Brick Kiln Boulevard within the City of Newport News. A trenchless crossing of I-64 is also required with this force main replacement effort.

A number of alignments were considered for the replacement force main during the preliminary engineering design. The Jefferson Avenue corridor is a congested area with numerous businesses located along the proposed replacement route.

As part of the project, a total of 15 temporary and permanent easements are required. Twelve of these easements from ten property owners listed below have not been finalized:

	Address	Tax ID Number
1.	711 Brick Kiln Boulevard	132000203
2.	Kiln Creek Lake 1	No Parcel #
3.	12302 Jefferson Avenue	141000131
4.	12300 Jefferson Avenue	141000113
5.	638 River Bend Court	152000701
6.	12120 Jefferson Avenue	151000508
7.	12130 Jefferson Avenue	151000513
8.	12132 Jefferson Avenue	141000503
9.	900 Bland Boulevard	112000101
10.	12150 Jefferson Avenue	151000505

In accordance with Section 15.2-1903.B of the Code of Virginia, the Commission must hold a public hearing to determine public need prior to acquisition actions that may result in condemnation.

A Facilities Orientation Map is provided for clarification purposes.

Staff will provide a short overview for the Commission and the public immediately prior to the Public Hearing.

Procedural Note: *The purpose of this public hearing is to allow the Commission to listen to public comments and ask clarifying questions, if necessary. No action will be taken during this meeting. Commissioners will have the opportunity to discuss the details of the project, the attempts to purchase the parcel, negotiation status and other topics at a future Commission meeting. Premature comments could affect our ability to conclude negotiations currently underway.*

Facilities Orientation Map

AGENDA ITEM 3. – February 22, 2022

Subject: York River System Isolation Valve Installation and Replacement Project
Public Hearing on Determination of Public Need for Easement Acquisition

Recommended Action: Conduct public hearing.

CIP Project: YR013900

Project Description: This project will install eight new valves and replace three existing valves. These valves are main line and branch isolation valves within the force main system from Coliseum Pressure Reducing Station (PRS) to the proposed Tabb PRS and will provide operational flexibility for isolation and flow diversion. The valves are being installed on existing force mains in the interceptor system. A number of options and locations for these valves were considered as part of the preliminary engineering design. The chosen locations were selected due to the location of existing valves that need to be replaced or installed to improve the operational control of the interceptor system.

As part of the project, HRSD will require a total of six temporary and permanent easements. Three of these easements from two property owners have not been finalized as follows:

	Address	Tax ID Number
1.	115 Bellgrade Drive, Hampton	6001016
2.	100Z Indian Summer Drive, York County	V02C-1878-1200

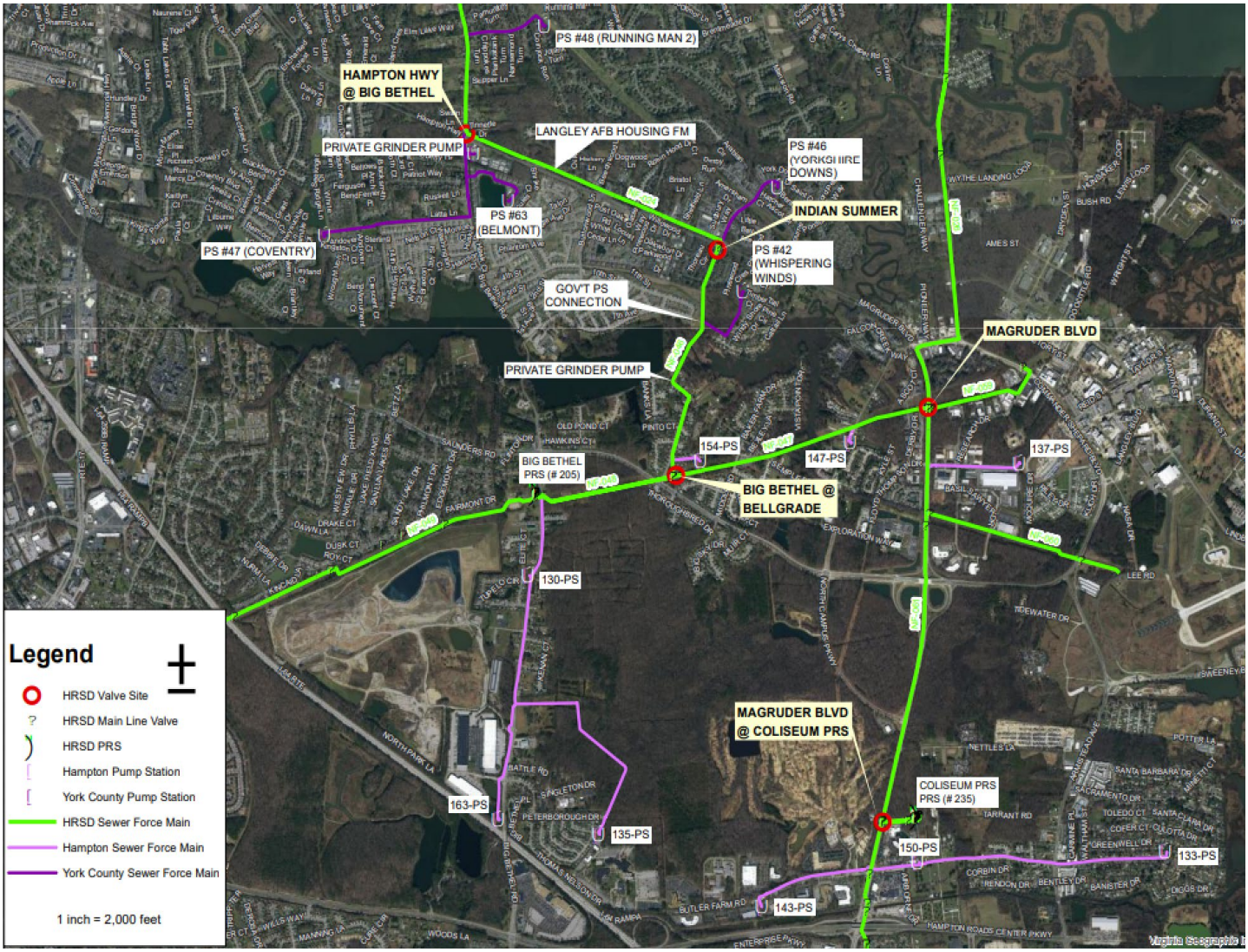
In accordance with Section 15.2-1903.B of the Code of Virginia, the Commission must hold a public hearing to determine public need prior to acquisition actions that may result in condemnation.

A Facilities Orientation Map is provided for clarification purposes.

Staff will provide a short overview for the Commission and the public immediately prior to the Public Hearing.

Procedural Note: *The purpose of this public hearing is to allow the Commission to listen to public comments and ask clarifying questions, if necessary. No action will be taken during this meeting. Commissioners will have the opportunity to discuss the details of the project, the attempts to purchase the parcel, negotiation status and other topics at a future Commission meeting. Premature comments could affect our ability to conclude negotiations currently underway.*

Facilities Orientation Map



Resource: Jay Bernas

AGENDA ITEM 4. – February 22, 2022

Subject: Fiscal Year-2023 Budget Preview

Recommended Action: No action is required.

Brief: Staff will present high-level drivers of the Fiscal Year-2023 budget. The following topics will be covered:

- Inflation
- FY-2023 Proposed Rate Increase
- Moving Project Management Costs from Operating to CIP

Resource: Mike Martin

AGENDA ITEM 5. – February 22, 2022

Subject: Industrial Wastewater Discharge Regulations and Enforcement Response Plan Proposed Modifications

Recommended Action: Approve the proposed modifications to the Industrial Wastewater Discharge Regulations and Enforcement Response Plan.

Brief: The HRSD Industrial Wastewater Discharge Regulations (Regulations) is the primary regulatory document utilized by the Pretreatment & Pollution Prevention (P3) Division to control non-domestic discharges to the region's sanitary sewer system.

The P3 Enforcement Response Plan (ERP) is the tool that allows HRSD to specify criteria by which it can determine the enforcement action most appropriate to the nature of any noncompliance. The Regulations and ERP were first adopted in 1978 with the last modifications occurring to the documents in 2012.

The proposed modifications address several areas:

- General administrative corrections
- Expand oversight to include protection of advanced water treatment systems
- Addition of three new prohibited waste discharges
- Addition of section for Control of Contaminants of Emerging Concern
- Addition of language for electronic reporting
- Addition of section for Comment Submittal and Review
- Rework of Civil Penalty section to make it broader to include possibility of penalties greater than the $32,500 noted for cases of aggravated violations
- ERP changes add clarity for certain circumstances

The attached proposed revisions and revision process will be reviewed at the meeting. Upon Commission approval, the modified document will be sent to the Virginia Department of Environmental Quality (DEQ) to determine appropriateness of the modifications. HRSD staff and legal counsel do not consider these modifications to be substantial as defined in 40 CFR 403.18. If DEQ agrees that the modifications are not substantial, a thorough review and public notice will not be required, and DEQ will have 45 days from receipt to notify HRSD. Staff will then determine an implementation date and notify all permittees and localities regarding the newly approved Regulations.

INDUSTRIAL WASTEWATER DISCHARGE

REGULATIONS

EFFECTIVE NOVEMBER 1, 1978

REVISED ~~JULY 1, 2012~~JULY 1, 2022

TABLE OF CONTENTS

PART I

PREAMBLE

101 Preface

This document provides requirements for control of the discharge of industrial wastewater and ~~i~~Infiltration/~~i~~Inflow (I/I) into the sewerage system of the Hampton Roads Sanitation District (HRSD), directly or through its constituent collection systems, and establishes regulations appertaining thereto.

102 Purpose and Authority

The purpose of these Regulations and the authority therefore are summarized in this section.

A. Purpose

The purpose of these Regulations is to provide for adequate regulation of industrial wastewater discharges in order to assure that HRSD complies with all applicable laws, rules and regulations and for the protection of the sewerage system, POTW personnel, and advanced water treatment systems to include beneficial reuses.~~.~~

B. Scope

The provisions of these Regulations shall be interpreted in accordance with the definitions set forth in Section 103 and shall apply to all discharges, direct or indirect, into any part of the sewerage system of HRSD. These Regulations provide for controlling the quantity, rate of discharge, and quality of wastewaters and I/I discharged into the HRSD system, and for the issuance of any wastewater discharge Permit, BMP ~~or I/I~~, Order, or other control mechanism.~~.~~

C. Construction and Interpretation

These Regulations shall be liberally construed to effect their purpose and policy, and wherever possible, shall be construed in a manner that is consistent with the intent and practice of HRSD, and all applicable laws, rules and regulations of the Commonwealth of Virginia and the United States of America.

D. Authority

These Regulations are authorized or required by Chapter 66, Acts of the Virginia General Assembly, 1960, as amended; the federal Clean Water Act, 33 U.S.C. Section 1251, et seq., and the Virginia State Water Control Law, Va. Code Section 62.1 – 44.2, et seq., and regulations thereunder; Va. Code Section 15.2-2122; and ~~the Virginia Pollutant Discharge Elimination System~~ any permits issued to HRSD's treatment facilities.

103 Definitions

The following words, terms, abbreviations or phrases used in these Regulations shall be defined as provided below, unless the context specifically indicates otherwise.

A. Administrative Order

Formal notification of a requirement to address an ~~non-compliance~~ issue associated with these R~~r~~egulations or any other P~~p~~retreatment S~~s~~tandard or requirement. Administrative O~~o~~rders contain compliance schedules designed to address the ~~non-compliance~~ issue(s) and may contain terms and conditions including, but not limited to: installation, repair or optimization of pretreatment equipment, requirements for new or additional self-monitoring, submittal of drawings or technical reports, limits on rate and time of discharge, reduction and/or removal of inflow/infiltration, interim limits, status reporting, or other provisions to ensure compliance with these Regulations. Enforcement discretion ~~will~~ may be exercised for applicable violations that may occur while the A~~a~~dministrative O~~o~~rder is under effect.

B. Advanced Water Treatment

Any treatment of ~~sewage~~wastewater that goes beyond the secondary or biological water treatment stage and may include treating to drinking water or other scientific or technological standards.

C. Authorized HRSD Personnel

Any person or contractor ~~-~~in the employ of HRSD ~~or contractor doing business~~ working in support of these Regulations; HRSD employees and contractors must carry identification.

D~~C~~. Batch Discharge

A discharge that does not flow on a continuous basis or the discharge of all or part of the contents of a tank that occurs intermittently.~~A volume of liquid placed in a container for the purpose of removing certain constituents prior to discharge to the sewerage system~~

ED. Baseline Monitoring Report (BMR)

A ~~data~~ report prepared by Industrial Users subject to c~~C~~ategorical Pretreatment Standards as outlined in 40 CFR 403.12. The report must be received by HRSD at least 90 days (180 days for a new c~~C~~ategorical Pretreatment Standard) prior to commencement of discharge to a POTW.

FE. Best Management Practice (BMP)

A written practice or requirement for such practice ~~or combination of practices~~ which ~~are~~ may be used as a control mechanism in lieu of permit requirements. BMPs, as described in 403.3(e) are applicable to broad categories of industry, and are determined by HRSD to be an effective, practicable means of preventing or reducing the release of toxic and hazardous pollutants, including contaminants of emerging concern, from spills, leaks, treatment and manufacturing processes; reducing or eliminating I/I; controlling fats, oils and grease; or otherwise controlling inputs to the POTW~~,~~ ~~to include Contaminants of Emerging Concern~~. BMPs ~~may be used as a written control mechanism as determined by HRSD and~~ shall be enforceable in accordance with these Regulations.

GF. Biosolids

The ~~nutrient-rich~~primarily organic materials resulting from the treatment of ~~domestic sewage~~wastewater at a wastewater treatment facility.

HG. BOD ~~(Biochemical Oxygen Demand)~~

Biochemical Oxygen Demand

~~The laboratory determination of the quantity of oxygen by weight, expressed in milligrams per liter, utilized in the biochemical oxidation of organic matter under standard laboratory conditions of incubation for five (5) days at a temperature of twenty degrees (20^{o}) centigrade. The BOD shall be determined in accordance with procedures set forth in 40 CFR Part 136.~~

I. Categorical Industrial User

An Industrial User subject to categorical Pretreatment Standards under 40 CFR Part 403.6 and 40 CFR chapter I, subchapter N, except those designated as Non-Significant Categorical Industrial Users.

JH. Categorical Pretreatment Standards

Pollutant discharge limits as referenced in 9 VAC 25-31-30 and promulgated by the EPA in accordance with 33 U.S.C. 1317 Section 307(b) and (c) of the Clean Water Act.

KI. CFR

Code of Federal Regulations

LJ. Chronic Violations

A history of violations (three or more violations within 180 days) ~~which may be consecutive,~~ for a single pollutant or requirement.

MK. Civil Penalty

A penalty assessed through ~~–~~administrative or judicial procedures.

NL. COD ~~(Chemical Oxygen Demand)~~

Chemical Oxygen Demand
~~The laboratory determination of the oxygen equivalent expressed in milligrams per liter of that portion of the organic matter that is susceptible to oxidation by the standard dichromate reflux method. The COD shall be determined in accordance with procedures set forth in 40 CFR Part 136.~~

OM. Common Control

Common c~~C~~ontrol shall refer to practical control and decision making authority for two or more business entities by the same Person(s). Determination as to whether two or more business entities are under c~~C~~ommon c~~C~~ontrol shall be based on the totality of the evidence, including but not limited to the involvement or ownership by r~~R~~elated p~~P~~arties.

PN. Compatible Pollutants

Wastewater and/or drinking water constituents which the wastewater and/or advanced water treatment plant is designed to treat which will not interfere with the wastewater or advanced water treatment processes employed or will not pass through the

treatment plant substantially untreated or inadequately treated or be released to the waters, including aquifers or wells, or atmosphere or be otherwise detrimental to the environment.

QO. Compliance Schedule

A schedule that contains increments of progress in the form of dates and completion of major events leading to compliance with applicable pPretreatment Sstandards or HRSD requirements. Compliance schedules are prepared in accordance with Section 503 of these Regulations.

RP. Composite Sample

A sample comprised of a series of discrete aliquots, based on an increment of either flow or time, from a waste stream which are collected either manually or by automatic sampler over the course of a normal discharge period and mixed in a single container with or without regard to the rate of flow of the discharge.

S. Confidential Information

Include, but are not limited to, any secret formula, secret processes, or secret methods, including any plan, pattern, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate or produce a compound, an article of trade, or a service having value or which gives its users an opportunity to obtain a business advantage over competitors who do not know or use it.

TQ. Connection

Any point of discharge into the sewerage system by, but not limited to, conduits, lines, pipes, force mains and pump stations.

U. Contaminants of Emerging Concern

Chemical and other waste cContaminants posing unique issues and challenges to the environment and/or human healthal community as a result of: (a) the recent development of new chemicals or other products; (b) new or recently identified byproducts or waste products; (c) newly discovered or suspected adverse human health or environmental impacts; (d) physical or chemical properties that are not fully evaluated or understood; (e) an absence of or pending changes to fully defined risk levels, water quality standards or guidance or other environmental program levels of control; and (f) other factors. Emerging contaminants

include, but are not limited to, PFAS (per and polyfluoroalkyl substances), nanomaterials, pharmaceuticals and their constituents, and steroids and hormones.

V. Control Mechanism

A permit, ~~best management practice~~BMP, or equivalent regulatory document or tool used to regulate wastewater discharges to the POTW to ensure compliance with these Regulations, Pretreatment Standards, and all permits issued to HRSD.

W~~R~~. Costs

All items of expense, direct or indirect, including overhead and general administrative items.

X~~S~~. Day(s)

Shall be the "due date" and shall be a calendar day. If the "due date" falls on a weekend or legal holiday, the next business day becomes the legal "due date".

Y. Direct Wastewater Discharge Permit

A permit required for the ~~discharge~~ introduction of industrial wastewater into the sewerage system through a direct connection.

Z~~T~~. Discharger

Any Person that discharges, or causes a discharge into the sewerage system, including those whose wastewater is transported for discharge by trucks or other means of conveyance

AA~~U~~. Domestic Wastewater~~s~~ (also Sanitary Wastewater)

The wastes produced from non-commercial or non-industrial activities and which result primarily from conventional household uses of water,~~normal human living processes, which are of substantially similar origin and strength to those typically produced in households,~~ including wastes from sanitary conveniences.

~~V. Duly Authorized Representative of the Industrial User or Other Regulated Discharger~~

~~1. A responsible corporate officer (president, secretary, treasurer or vice-president) in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production or~~

~~operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.~~

~~2. A general partner or proprietor if the industrial user submitting required reports is a partnership or sole proprietorship, respectively.~~

~~3. A commanding officer, director or highest official appointed or designated to oversee the operation and performance of the activities, or their designee if the industrial user is a government facility.~~

~~4. A duly authorized representative of the individual designated in 1, 2, or 3 above if:~~

~~(a) The authorization is made in writing as specified by HRSD.~~

~~(b) The authorization specified is either an individual or a position having responsibility for the overall operation of the facility from which the discharge originates such as plant manager, operator, superintendent or position of equivalent responsibility, or having responsibility for environmental matters for the industry.~~

~~Whenever the Duly Authorized Representative in 1, 2, 3, or 4 above is no longer appropriate, a new authorization must be submitted to HRSD prior to or together with any reports to be signed by the authorized representative.~~

BB~~W~~. Enforcement Order

A document issued by HRSD to an Industrial User, pursuant to the authorities of these Regulations or other legal authority, requiring the Industrial User to take specified actions and/or refrain from specified actions in regard to discharges to the sewerage system and/or management of wastewaters. Some Enforcement Orders may include the assessment of a Civil Penalty, after the opportunity for a hearing.

CC~~X~~. Enforcement Response Plan

A set of detailed procedures indicating how HRSD will respond to instances of discharger noncompliance as referenced in 9 VAC 25-

31-800, et seq and 40 CFR Part 403, and to discharger noncompliance with ~~I/I Orders and~~ any ~~other~~ requirements outlined in ~~Part IV~~these Regulations ~~requirements~~.

DD~~Y~~. Effluent

Wastewater flowing out of any facility designed to treat, pretreat, convey or retain wastewater

EE~~Z~~. EPA

The United States Environmental Protection Agency

FF. Fats, Oils and Grease (FOG)

Any substance such as a vegetable or animal product that is used in, or is a byproduct of, the cooking, ~~or~~ food preparation, or other processes, and that turns or may turn viscous or solidifies with a change in temperature or other conditions.

GG. General Administrative Order

An Administrative Order issued and applicable to the members of a class of Industrial Users and includes General I/I Orders.

HH~~AA~~.General Manager

The General Manager of HRSD or duly authorized deputy or agent

II~~BB~~.Grab Sample

An individual sample which is collected with no regard to the flow in the waste stream but which reasonably reflects actual discharge conditions at that time

JJ~~CC~~. HRSD

Hampton Roads Sanitation District

KK~~DD~~.Hauled Waste

Wastewater from any tank, vessel, vehicle, pond or other devices that is transported by truck or some other hauling device to an HRSD designated discharge location.

LL~~EE~~. Hearing Officer

An authorized agent of HRSD appointed by the General Manager to conduct hearings in accordance with these Regulations.

MM. High Strength Waste

Wastewater that contains contaminants in concentrations higher than that of domestic quality wastewater as defined in the most current HRSD Rate Schedule.

NN~~FF~~.Incompatible Pollutant

Any wastewater constituent or substance which is not a compatible pollutant as defined in this section.

OO~~GG~~.Indirect Wastewater Discharge Permit

A Permit required for the discharge of wastewater into the HRSD sewerage system, at designated locations, by truck or some other hauling device.

PP~~HH~~.Industry/Industrial User (User)

Any place of business, endeavor, arts, trade, or commerce, whether public, government or private, commercial or charitable, which uses water in a product, process, or in any manner that generates wastewater which is discharged to the HRSD sewerage system, including multi-family residential, trailer parks and other wastewater collection systems where multiple single-family sewer laterals are aggregated and discharge to the public sewerage system at central connection(s). Waste haulers are also considered industrial users.

QQ~~II~~. Industrial Wastewater

All liquid carried wastes and wastewater of the community, excluding sanitary and non-contact cooling waters, and shall include all wastewater from any producing, manufacturing, processing, institutional, commercial, agricultural or other operations from which the wastewater discharged includes wastes of non-human origin.~~All wastewater of the community, excluding single-family domestic wastewater from a source not included under the definition of Industry/Industrial User and including, but not limited to all wastewater from any producing, manufacturing, processing, institutional, commercial, agricultural or other operations from which the wastewater discharged includes wastes of non-human origin.~~

RRR~~JJ~~.Infiltration/Inflow ~~or~~ (I/I)

Preipitation runoff, groundwater and other waters not constituting wastewaters that either flow or leak into the sewerage system.

SS~~KK~~.Infiltration/Inflow (I/I) Criteria ~~or I/I Criteria~~

The criteria developed by HRSD necessary and convenient for it to implement the Regional Technical Standards and to further optimize the operations of the ~~wastewater collection and treatment~~sewerage systems, in part through control of I/I at the facilities of Industrial Users.

~~LL. Infiltration/Inflow General Administrative Order or I/I General Order~~

~~An Infiltration/Inflow~~Administrative ~~Order issued and applicable to the members of a class of Industrial Users. This would include General I/I Orders.~~

TT~~MM~~.Infiltration/Inflow (I/I) Order ~~or I/I Order~~

An Administrative Order issued by HRSD to an Industrial User requiring the assessment, remediation and control of Infiltration/Inflow. The term includes individual ~~Infiltration/Inflow~~I/I Orders and ~~Infiltration/Inflow~~I/I General Orders.

UU. Initial Wastewater Characterization (IWC)

Sampling, frequency, and analysis of parameters, as determined by HRSD, to identify type and concentration of pollutants contributed to the POTW by an Industrial User. The IWC, at a minimum, is used for the following purposes:

1. To determine if pretreatment or additional pretreatment is required;

2. To determine if high strength waste is being discharged;

3. To define self-monitoring requirements; and,

4. To determine compliance with these Regulations.

VV~~NN~~.Inspector

A person authorized by the General Manager to inspect wastewater generation, conveyance, processing, pretreatment, and disposal facilities.

WW~~OO~~.Interference

An inhibition or disruption of the POTW, ~~its~~ collection systems, treatment processes or operations, or its biosolids processes, which causes, in whole or in part, a violation of any requirement of the POTW's VPDES permit, including those discharges that prevent the use or disposal of biosolids by the POTW in accordance with any Federal or State laws, regulations, permits or biosolids management plans

XX. Limit of Quantitation (LOQ)

The lowest achievable concentration at which quantitation is demonstrated using an approved procedure as defined in paragraph 502B of these Regulations.

YY~~PP~~.Maximum Permissible Concentration

The highest allowable parameter concentration contained in a direct or indirect discharge into the HRSD sewerage system

~~QQ. May~~

~~Construed as meaning permissive~~

~~YY~~ZZ. Medical Waste

Shall mean the discharge of isolation wastes, infectious agents, human/animal blood and blood byproducts, pathological wastes, contaminants of emerging concern that are medical in nature, sharps, body parts, fomites, etiologic agents, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, or other wastes as determined by HRSD. This definition also applies to medical wastes generated from veterinary operations.

AAA~~RR~~.New Source

Any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after publication of proposed categorical P~~p~~retreatment ~~s~~Standards under 9 VAC 25-31-30 and Section 306 of the Clean Water Act

BBB. Non-Contact Cooling Water

Water which is used to reduce temperature for the purpose of cooling, and which does not come into direct contact with any raw material or other chemical, intermediate product (other than heat), waste product, or finished product.

CCC~~SS~~.Nuisance

A condition, activity, or situation, as determined by HRSD, that interferes with a person's use or enjoyment of life or property, is injurious to health, or is unreasonably offensive to the senses.~~Anything which is determined by HRSD to be injurious to health, or is unreasonably offensive to the senses, or an unreasonable obstruction to the use of property, so as to unreasonably interfere with the comfort or enjoyment of life or property, whether it affects an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal~~

DDD~~TT~~.Overload

The imposition of any parameter or hydraulic loading on a treatment or conveyance facility in excess of its design and/or legally authorized capacity

EEE~~UU~~.Parameter

~~Any analytically defined constituent of wastewater. Also referred to as Pollutant.~~Any measurable biological, chemical, or physical property of the environment.

FFF~~VV~~.Pass Through

The discharge of pollutants through a POTW into State waters, air, or groundwater in quantities or concentrations which are a cause in whole or in part of a violation of any requirement of the POTW's ~~VPDES~~ permits, including an increase in the magnitude or duration of a violation

GGG~~WW~~.Permit

Any Direct or Indirect Wastewater Discharge Permit issued pursuant to these Regulations

HHH. Permittee

Permittee shall mean a Person who has received a permit to discharge wastewater into the sewerage system subject to the

requirements and conditions established by HRSD.

III~~XX~~. Person

Any individual, partnership, committee, association, corporation, public agency, government agency and any other organization or group of persons, public or private, recognized as a legal entity.

~~YY. pH~~

~~The negative base 10 logarithm of the hydrogen-ion concentration~~

JJJ~~ZZ~~.POTW

Publicly Owned Treatment Works meaning any sewage treatment works or sewerage system that is owned by a State or municipality including all HRSD facilities.

KKK. Pollutant or Pollutant Property

~~See definition of Parameter.~~A parameter that is regulated or restricted for discharge to the sewerage system.

LLL. Pretreatment

Pretreatment shall mean the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The ~~r~~reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by 40 CFR 403.6(d).

MMM. Process Wastewater

Any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

NNN~~AAA~~.RCRA

The federal Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, et seq.

OOO~~BBB~~.Radioactive Material

Material containing ~~chemical elements~~pollutants that spontaneously

change their atomic structure by emitting any particles or rays.

PPP~~CCC~~.Rate Schedule

The prevailing schedule of rates for wastewater treatment and associated charges as contained in the HRSD Rate Schedule. Rate Schedules are available at www.hrsd.com.~~-~~

QQQ~~DDD~~.Regional Technical Standards

The standards for I/I established by HRSD necessary and convenient for it to maintain and achieve compliance with Federal and State requirements concerning sanitary sewer overflows and for it to most effectively utilize the sewerage system.

RRR~~EEE~~.Regulation(s)

This series of regulations contained herein, or any individual regulation or subsection thereof.

SSS~~FFF~~.Related Parties

Parties with the relationships defined in 26 U.S.C. Section 267(b)

TTT. Responsible Official of the Industrial User or other Regulated Discharger

1. A responsible corporate officer (president, secretary, treasurer or vice-president) in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. A general partner or proprietor if the industrial user submitting required reports is a partnership or sole proprietorship, respectively.

3. A Ccommanding Oefficer, director or highest official appointed or designated to oversee the operation and performance of the activities, or their designee if the industrial user is a municipality, State, Federal or other public agency.

4. A duly authorized representative of the individual in 1, 2, or 3 above if such representative is responsible for the overall operation of the facility and/or the environmental matters for the facility, AND the authorization is made in writing by the individual in 1, 2, or 3 above.

Prior to the Responsible Official signing or certifying Industrial User reports, an authorization must be made, in writing, as specified and approved by HRSD.

UUU~~GGG~~.Sanitary Sewer

A pipe or conduit, generally closed, for carrying wastewater.

VVV. Sanitary Sewer Overflow (SSO)

An overflow, spill, diversion, or release of wastewater from or caused by the sewerage system due to a variety of reasons including blockages, damage to pipes, mechanical failures, vandalism, storm events, or unusually high tides. SSOs can contaminate waterways, cause water quality problems, and back up into homes, causing property damage and threatening public health.

WWW.Sanitary Wastewater

See Domestic Wastewaters.

XXX~~HHH~~. Section

A section of these Regulations.

YYY~~III~~. Septic Tank Waste

Domestic ~~septage~~ wastewater from a septic tank.

~~JJJ. Sewage~~

~~The water-carried wastes created in, or to be carried away from residences, hotels, schools, hospitals, industrial establishments, commercial establishments, or any other private or public building, together with such industrial wastes as may be present. Sewage is included in the term "Wastewater" as defined below.~~

ZZZ. Sewer System Evaluation Survey (SSES)

A systematic examination of sanitary sewerage system or portion thereof to, at a minimum: i) identify the condition of sewers, manholes, pump stations and associated appurtenances; ii) identify I/I sources, locations, and associated extraneous flow rates, iii) characterize the wastewater flow; and iv) determine technically feasible, ~~cost effective~~cost-effective methods o~~f~~f rehabilitation.

AAAA~~KKK~~. Sewerage System

A network of wastewater collection, conveyance, treatment, advanced water treatment and reclamation or disposal facilities interconnected by sanitary sewers and connecting, directly or indirectly, to HRSD, including but not limited to intercepting sanitary sewers, outfall sanitary sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extensions, improvements, remodeling, additions, and alterations thereof; and any work, including the land that will be an integral part of the treatment process or is used for ultimate disposal or reclamation of residues resulting from such treatment.

~~LLL. Shall~~

~~Construed as meaning mandatory~~

BBBB~~MMM~~. Significant Industrial User

An Industrial User which meets any of the following criteria:

1. I~~i~~s subject to categorical ~~p~~Pretreatment S~~s~~tandards unless HRSD determines that the facility is a Non-Significant Categorical Industrial User based on finding that the Industrial User never discharges more than 100 gallons per day of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

   (a) The Industrial User has consistently complied with all applicable categorical Pretreatment Standards and r~~R~~equirements.

   (b) The Industrial User annually submits the certification statement required in 9 VAC 25-31-10 and Section 6.14 B of 40 CFR 403.12(q) together with any additional information necessary to support the

certification statement.

(c) The Industrial User never discharges any unpretreated concentrated process wastewater.

2. Ddischarges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding wastes such as sanitary, non-contact cooling and boiler blowdown wastewater);

3. Ccontributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW; or

4. Iis designated by HRSD on the basis that the industrial user has a reasonable chance for adversely affecting the POTW's operation or for violating any Ppretreatment Sstandard or requirement.

HRSD, may find that an industrial user meeting the criteria in 2. or 3. above, has no reasonable potential for adversely affecting the POTW's operation or for violating any Ppretreatment Sstandard or requirements, in which case such industrial user is not a significant industrial user.

CCCCNNN. Significant Non-Compliance

An industrial user is in significant non-compliance if its violation meets one or more of the criteria as listed in 9 VAC 25-31-800 and 40 CFR Part 403. Significant Nnon-Ccompliance criteria are shown in HRSD's list entitled *"Significant Non-ComplianceNC Criteria"* as amended periodically and available from the offices of HRSD or at www.hrsd.com.

DDDDOOO. Slug Discharge

Any discharge including, but not limited to, accidental discharges, discharges of non-routine, episodic nature, a non-customary batch discharge, or spill, at a flow rate or concentration which could cause a violation of the prohibited discharge standards in the General Pretreatment Regulations (9 VAC 25-31-770 and 40 CFR Part 403) in the Code of Federal Regulationsor these Regulations.

EEEE.Stormwater

Any flow, such as surface run-off and drainage, occurring during or following any form of natural precipitation event, and resulting from such precipitation, including snowmelt.

FFFFPPP. Stormwater System

Any system which is designed to carry storm and surface waters and drainage.

GGGGQQQ. Suitable Sampling Location

A sampling point with access to the flow and in a reasonably ~~accessible~~ accessed location as determined by HRSD.

HHHHRRR. ~~Total Suspended Solids (TSS)~~TSS

Total Suspended Solids
~~The insoluble solid matter suspended in wastewater that is determined in accordance with the procedure described in 40 CFR Part 136~~

IIIISSS.To Discharge

To deposit, conduct, drain, emit, run, allow to seep, or otherwise release, transport, dispose of or allow, permit or suffer any of the foregoing by act or omission.

JJJJ. Total Toxic Organics (TTO)

The sum of the masses or concentrations of specific toxic organic compounds found in the industrial user's process discharge at a concentration greater than 0.01 mg/L. Each EPA Ccategorical Pretreatment Standard lists the specific toxic organic compounds that are to be included in the summation to define TTO for the category.

KKKKUUU. Toxic

That which through its chemical action usually kills, injures, or impairs an organism; something potentially destructive or harmful.

LLLLTTT. Toxic Organics (TO)

The list of toxic organic compounds having quantifiable values greater than 0.01 milligrams per liter as shown on HRSD's list entitled *"HRSD Toxic Organics"* as amended periodically and available from the offices of HRSD or at www.hrsd.com.

~~UUU. Toxic~~

~~That which through its chemical action usually kills, injures, or impairs an organism; something destructive or harmful~~

~~VVV. Trade Secrets~~

~~Include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate or produce a compound, an article of trade, or a service having commercial value, and which gives its users an opportunity to obtain a business advantage over competitors who do not know or use it~~

MMMM~~WWW~~.Unpolluted Water

Water to which no ~~constituent~~ pollutant has been added~~,~~ or from which all ~~constituents~~ pollutants have been removed, either intentionally or accidentally which would render such water acceptable to any person having jurisdiction thereof for disposal to storm or natural drainages or directly to surface waters.

NNNN~~XXX~~.Unusual Wastewater

Water unsuitable for direct discharge after treatment to State waters which traditionally has not been discharged to the sewerage system.

OOOO~~YYY~~.VPDES

Virginia Pollutant Discharge Elimination System - Any p~~P~~ermit issued by the Virginia Department of Environmental Quality authorizing, under prescribed conditions, the discharge of pollutants from a point source to surface waters.

~~ZZZ.~~PPPP.Visible Free Oil

Any visible petroleum-based or mineral-based oil which can be removed from a waste stream through physical means.

QQQQ~~AAAA~~. Wastewater

The water-carried waste ~~from the community~~ derived from any source, including domestic wastewater and industrial wastewater. Stormwater, groundwater or drainage of unpolluted water is not wastewater.

RRRR.Waste Hauler

Any person transporting ~~hauled~~ waste.

SSSS~~BBBB~~. ~~-~~Zero Discharge

The discharge of a pollutant at a concentration that is reported as less than the lowest ~~Limit of Quantitation (~~LOQ. ~~) which is the lowest achievable concentration at which quantitation is demonstrated using an approved procedure as defined in paragraph 502B of these Regulations.~~ These parameters are shown on HRSD's list entitled *"Zero Discharge Pollutants"* as amended periodically and available from the offices of HRSD or at www.hrsd.com.

104 Effective Date

The provisions of these Regulations shall become effective on ~~July 1, 2012.~~XXXXXXXXXJuly 1, 2022

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PART II

~~DIRECT AND INDIRECT WASTEWATER DISCHARGE PERMITS~~PERMITS, BMPs and REGULATORY CONTROL MECHANISMS

201 Permits or BMPs Required

All Dischargers of industrial wastewater into the sewerage system or any discharge which otherwise may have significant impact on the sewerage system, either individually or in combination with other wastes as determined by HRSD, shall complete an HRSD p~~P~~permit a~~a~~pplication and obtain a discharge Permit or be subject to BMP requirements.

A separate p~~P~~ermit or BMP shall be required for each discharger. For each discharger having multiple connections at a single plant or facility, a single p~~P~~ermit shall be required which may set forth specific effluent limitations and conditions for discharge from each separate connection.

202 Compliance Required

All industrial users shall discharge industrial and other wastewaters in accordance with conditions specified in the Permit, ~~or~~ BMP, these Regulations, or other control mechanisms. Any permit holder desiring to modify a discharge or other conditions of the Permit shall apply in writing for an amended Permit. Any discharger subject to a BMP must notify HRSD in writing should conditions change that might warrant a reconsideration of requirements.

203 Processing and Issuance of Permits and BMPs

HRSD will evaluate the p~~P~~ermit a~~a~~pplication or any proposed BMP and may require additional information. A draft Permit or the applicable BMP may be issued within sixty (60) days after all data required by these Regulations have been furnished to and accepted by HRSD. ~~The applicant shall then be allowed a thirty (30) day comment period.~~The applicant shall be allowed a comment period within the first thirty (30) days after receipt. Comments shall be submitted in accordance with Section 512 of these Regulations. Upon the expiration of the comment period, written waiver of the comment period, or upon the expiration of ninety (90) days from the date the data has been furnished and accepted, HRSD shall issue or deny a Permit or shall issue or not require a BMP. A Permit or BMP ~~may~~ shall contain appropriate restrictions. Issuance of a Permit or BMP shall not relieve the discharger from complying with all applicable laws, regulations, and ordinances promulgated by other government

authorities, nor shall the issuance of a Permit or BMP be construed as a representation by HRSD that the discharge permitted therein complies with such laws, regulations and ordinances.

Any categorical industrial user that requests a monitoring waiver (or a renewal of an approved monitoring waiver) for a pollutant neither present nor suspected to be present in the discharge must submit a written request to HRSD and also at the time of each permit renewal.

Permits and BMPs are issued solely to govern the discharge of wastewater into the sewerage system and the applicable receiving stream, as between the Discharger and HRSD, and shall not be construed to benefit any third party.

204 ~~Permit~~ Restrictions and/or Requirements

The restrictions and/or requirements ~~in Permits, BMPs or I/I Orders~~for all Industrial Users may include, but shall not be limited to, the following:

A. The maximum permissible concentration and/or loading of wastewater ~~parameters~~ pollutants and any applicable BMPs required by applicable Pretreatment Standards.

B. Limits on rate and time of discharge, or requirements for flow regulation and equalization.

C. Limits on pollutants ~~parameters~~ pursuant to paragraphs 301Z and 301AA of these Regulations reflecting allowable instantaneous and/or average concentrations and/or loadings.

Notwithstanding the above, an Industrial User may apply to HRSD for an exception to such BOD, TSS, t~~T~~otal n~~N~~itrogen (or any n~~N~~itrogen species) or t~~T~~otal p~~P~~hosphorus restrictions, and HRSD may approve such application, in whole or in part, if it determines that such exception is consistent with sewerage system capabilities and allowances for future sewerage system growth. In the event of such HRSD approval, HRSD shall establish a f~~F~~acility c~~C~~harge applicable to the Industrial User within the then current HRSD Rate Schedule. The f~~F~~acility c~~C~~harge shall be calculated to recover the incremental costs of the sewerage system resulting from the approved exception, and shall be made effective at the effective time of HRSD approval of the Industrial User's exception.

D. Requirements for inspections, flow metering, and ~~sampling~~ monitoring facilities.

E. Requirement to conduct ~~Sanitary Sewers~~Sewer s~~S~~ystem

~~e~~Evaluation ~~s~~Surveys (SSES) ~~to identify, characterize and quantify sources of I/I.~~

F. Pretreatment of industrial and other wastewater before discharge.

G. Specifications for monitoring programs, which may include suitable sampling locations, parameters, frequency and method of sampling, flow metering, number, types and standards for tests and reporting schedule.

H. New Dischargers or Dischargers with new process waste streams shall be required to perform compliance sampling and analysis for parameters at times and locations ~~as~~ specified by HRSD.

I. Prohibition of discharge of certain wastewater parameters.

J. Requirement for submission of periodic discharge reports to include information concerning volume, rate of flow, parameter concentrations, peak flow rates, hours of operation, number of employees, or other information.

K. Requirements for the protection of the sewerage system~~.~~.

L. The process for seeking a waiver from monitoring for a pollutant neither present nor suspected to be present in the Discharge and any grant of the monitoring waiver authorized by HRSD.

M. Provide spill containment for protection against slug discharges to the sewerage system. Such protection shall be designed to secure the discharges and to prevent them from entering into the sewerage system in accordance with reasonable engineering standards. Such facilities shall be provided and maintained at the dischargers expense.~~Requirements to control Slug Discharge, if determined by HRSD to be necessary.~~

N. Other conditions as ~~deemed~~ determined appropriate by HRSD to ensure compliance with all applicable local, State, and Federal regulations.

205 Duration of Permits, ~~and/or~~ BMPs, and other control mechanisms

Permits shall be issued for any specified period of time, not to exceed five (5) years. BMPs and other control mechanisms shall be in effect for the duration of the discharge unless otherwise specified by HRSD.

206 Duty to Reapply

It is the responsibility of all Permittees to reapply to HRSD for authorization and reissuance of a Permit to discharge. The permit application must be received by HRSD at least 180 days prior to expiration of the existing permit unless permission for a later date has been granted by HRSD.

207 Modification of Permits, BMPs and other control mechanisms

The terms and conditions of any Permit, ~~or~~ BMP, or other control mechanism may be subject to modification by HRSD during ~~the life of the Permit~~ its duration to accommodate changed conditions and as local, State, and Federal laws, rules and regulations are modified or amended or in the event of variations in reported data as provided in Section 505 of these Regulations. ~~Permit holders~~Users shall be allowed a comment period relating to any of the proposed changes ~~in their Permits~~ within the first thirty (30) days after receipt of such proposed changes. Comments shall be submitted in accordance with Section 512 of these Regulations. HRSD shall allow ~~a~~ the ~~discharger~~ User a reasonable period of time to comply with any changes ~~in the Permit~~ required by HRSD, unless otherwise required by emergency or governmental regulations. Nothing in these Regulations precludes HRSD from taking immediate action to temporarily modify a ~~Permit~~ control mechanism when there is imminent risk of damage to the sewerage system or negative impact to the public or to the environment, subject to the Industrial ~~Permit holder's~~Users further rights as provided herein.

208 ~~Permits~~ Not Transferable

Permits, BMPs, Administrative Orders, and other control mechanisms are not transferable to any person without written approval from HRSD. HRSD may require modification or revocation and reissuance ~~of the Permit~~ to change the name of the Industrial ~~Permittee~~ User and incorporate such other requirements as may be necessary.

~~209 Indirect Wastewater Discharge Permit~~

~~Any discharge of hauled wastewater at HRSD Treatment Plants shall require an Indirect Wastewater Discharge Permit.~~

PART III

WASTEWATER DISCHARGE REQUIREMENTS

301 Prohibited Waste Discharges

No person shall discharge or cause to be discharged into any portion of the sewerage system, directly or indirectly, any wastes which may violate any law or governmental regulation or have an adverse or harmful effect on the sewerage system, ~~maintenance personnel, wastewater treatment plant~~POTW personnel, processes, or equipment, ~~treatment plant effluent~~water quality (including both surface water and groundwater), biosolids quality, air quality, public or private property, or which may otherwise endanger the public, the local environment or create a nuisance, or which may interfere with or adversely impact wastewater treatment, beneficial reuses and/or biosolids technology, as determined by HRSD. The following discharges are expressly prohibited:

A. Any gasoline, benzene, naphtha, solvent, fuel oil or any liquid, solid, or gas that may cause flammable or explosive conditions, including, but not limited to, waste streams with a closed cup flashpoint of less than 140°F (60°C) using test methods specified in 40 CFR Section 261.21.

B. Any toxic or poisonous solids, liquids or gases in such quantities or concentrations that, alone or in combination with other wastewater parameters, may interfere with the ~~sewage~~ wastewater collection and treatment process or biosolids use or disposal, cause acute worker health or safety problems, materially increase the cost of treatment, or constitute a hazard to any beneficial ~~stream~~ use, including recreation, ascribed to the receiving waters of the effluent from the ~~sewage~~ treatment plant.

C. Any waste having a pH in violation of requirements as provided in 9 VAC 25-31-770 and 40 CFR Part 403 or having any detrimental characteristics that may cause injury or damage to persons or property or processes.

D. Any solids or viscous substances that may cause obstruction to flow or be detrimental to sewerage system operations. These objectionable substances include, but are not limited to, medical wastes, fats, oils, grease (FOG), coffee grounds, asphalt, dead animals, offal, ashes, sand, mud, straw, industrial process shavings, metals, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, bones, hair and fleshings, entrails, paper ~~dishes~~towels, paper cups, milk containers, or other similar paper products, either whole or ground.

E. Any ~~significant quantities~~ volume of water which includes but is~~are~~ not limited to: pools; surface water; rainwater; stormwater; groundwater; street drainage; yard drainage; ~~-~~yard fountains, ponds or lawnsprays, unless there is no effective and practical alternative as determined and ~~otherwise~~ approved by HRSD.

F. Any water added for the purpose of diluting wastes which c~~w~~ould otherwise exceed applicable limitations for any wastewater parameter.

G. Any petroleum or mineral-based oils ~~-~~and/or any animal or vegetable based fats, oils or greases which in excess concentrations would tend to cause interference, pass-through, or adverse effects on the sewerage system, as determined by HRSD. No visible free petroleum or mineral-based oil shall be present in the discharged waste stream.

H. Any wastes with excessively high COD, BOD, decomposable organic content or any significant quantities of wastewater with a COD to BOD ratio exceeding six to one (6:1). COD to BOD ratio criteria are shown on HRSD's list entitled *"Wastewater Discharge Authorization Criteria for a Calculated COD:BOD Ratio"* as amended periodically and available from the offices of HRSD or at www.hrsd.com.

I. Any ~~significantly~~ nuisance odorous wastes or waste tending to create odors.

J. Any waste containing dissolved sulfides in amounts which would be hazardous, cause damage to the sewerage system, or create a ~~public~~ nuisance.

K. Any substance promoting or causing the promotion of toxic gases.

L. Any wastes that will increase the temperature of the treatment plant influent to greater than 104°F (40°C).

M. Any wastes requiring the introduction of an excessive quantity of chlorine or any other compound for ~~sewage~~ wastewater treatment purposes.

N. Any ~~significant amounts~~volume of deionized water, distilled water, ~~steam~~ condensate, cooling water, or discharges from heat pumps, unless there is no effective and practical alternative as determined and approved ~~otherwise approved~~ by HRSD.

O. Any waste producing significant discoloration of wastewater or treatment plant influent.

P. Any waste containing substances that may precipitate, solidify, or become viscous.

Q. Any significant quantities of solid waste material that is not ground sufficiently to pass through a 3/8 inch screen.

R. Any ~~significant quantity~~excessive volume of blow-down or bleed water from cooling towers or other evaporative coolers, unless otherwise approved by HRSD.

S. Any quantities of radioactive material wastes which are in violation of applicable local, State, and Federal regulations.

T. Any significant quantities of inorganic material.

U. Any discharge of any pollutant released at a flow rate and/or pollutant concentration that would result in interference, cause adverse effects or pass through at the treatment plant.

V. Any discharge not in compliance with all standards as referenced in 9 VAC 25-31-30 and as set forth in 40 CFR Chapter I, Subchapter N, Parts 401-471 (NPDES ~~National c~~Categorical Pretreatment Standards).

W. Any quantity of wastewater in which the Toxic Organics (TO) concentration exceeds 2.13 mg/l, or in which any one toxic organic compound exceeds 1.0 mg/l, or in which the BTEX (b~~B~~enzene, ~~T~~toluene, e~~E~~thylbenzene and x~~X~~ylenes) concentration exceeds 1.0 mg/l. The pollutants that comprise the TO are shown on HRSD's list entitled "Toxic Organics" as amended periodically and available from the offices of HRSD or at www.hrsd.com.~~:~~

X. Concentrations of any parameter listed in Appendix A which exceed the particular limitations set forth therein shall not be discharged directly or indirectly, into the sewerage system. Dischargers with flows in excess of 400,000 gallons per day, or as otherwise required, shall be given limitations for parameters on a case-by-case basis, taking into consideration, but not limited to, the following:

1. Quantity, rate, and method of discharge.

2. Proximity to the HRSD treatment plant receiving the waste.

3. Size and type of the treatment plant which receives the

waste.

4. Method of biosolids use or disposal employed by the treatment plant receiving the wastes.

5. Other discharges to the same treatment plant which may, in combination with the aforementioned discharge, form toxic substances or any parameter having adverse effects on treatment structures and processes or which cause a nuisance or pass through or impacts on human health and/or the environment.

Y. HRSD shall enforce a "zero discharge" policy for certain pollutants for which zero discharge is necessary or useful for the purposes of these Regulations. ~~that are known or suspected to be persistent bioaccumulative (or acutely toxic) and which are known or suspected to be harmful to the environment.~~ These pollutants are shown on HRSD's list entitled *"Zero Discharge Pollutants"* as amended periodically and available from the offices of HRSD or at www.hrsd.com.

Z. Any wastes with BOD, TSS, t~~T~~otal n~~N~~itrogen (or any n~~N~~itrogen species) or t~~T~~otal p~~P~~hosphorus concentration or loading in excess of discharge-specific or other values established by HRSD, and representing the reasonable capabilities of the Industrial User's processes and installed pretreatment processes.

AA. Any wastes with concentration or loading [other than BOD, TSS, t~~T~~otal n~~N~~itrogen (or any n~~N~~itrogen species) or t~~T~~otal p~~P~~hosphorus] in excess of discharge-specific or other values established by HRSD, and representing the reasonable capabilities of the Industrial User's processes and installed pretreatment processes.

BB. Any unauthorized discharge of saltwater or reverse osmosis wastewater.

CC. Any unused, unwanted, or expired pharmaceuticals (both over the counter and prescription-only medications) except in accordance with Federal and state regulations, or in the absence of such regulations, using Best Management Practices.

DD. Any fire-fighting foam (e.g. aqueous film forming foam [AFFF]) or water that has come into contact with firefighting foam discharged directly or indirectly into the sewerage system.

302 Notification of Violation

Dischargers shall notify the HRSD Pretreatment & Pollution Prevention Division within twenty-four (24) hours of becoming aware of discharging wastes in violation of these Regulations accidentally or otherwise. Dischargers are required to take all reasonable countermeasures to stop the discharge and to neutralize its effect, if possible. Such reasonable countermeasures shall not alter any Discharger's obligations of compliance or establish a defense to any enforcement action. HRSD may require the Discharger~~s~~ to provide protection from accidental discharge of prohibited materials or other wastes controlled by these Regulations.

303 Notification of Hazardous Waste Discharge

All Industrial Users shall notify the HRSD Pretreatment & Pollution Prevention Division, the EPA Regional Waste Management Division Director, and State hazardous wastes authorities, in writing, of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under ~~the Code of Virginia~~9 VAC 25-60 ~~and~~ or 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in the Code of Virginia and 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other).

If the Industrial User discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall contain the following information to the extent such information is known and readily available to the Industrial User: an identification of the hazardous constituents contained in the wastes; an estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month; and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve (12) months.

Industrial Users who commenced discharging after August 23, 1990 shall provide the notification no later than 180 days after the discharge of the hazardous waste. These notifications need be submitted only once for each hazardous waste discharged, unless required more frequently by HRSD. However, notifications of changed discharges must be submitted under paragraph 503D of these Regulations. The notification requirement does not apply to pollutants already reported under the self-monitoring requirements of 9 VAC 25-31-840 and 40 CFR Section 403.12(b), (d) and (e).

Industrial Users are exempt from the above requirements during a calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes, unless the wastes are acute hazardous

wastes as specified in 40 CFR Sections 261.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR Sections 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the Industrial User discharges additional quantities of such hazardous waste do not require additional notification.

In the case of new regulations under Section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the Industrial User must notify the POTW, the EPA Regional Waste Management Division Director and State hazardous waste authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.

In the case of any notification made under this section, the Industrial User shall certify that it has a program in place to reduce the volume or toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

304 Pretreatment of Industrial Wastewaters

All Industrial Users and/or other Dischargers shall make wastewater acceptable under the limitations established herein and/or in their individual Permits ~~or~~, BMPs or other control mechanisms before discharging directly or indirectly into the sewerage system. ~~All~~ Dischargers shall be issued a compliance schedule as ~~deemed~~ determined appropriate by HRSD. Schedules for compliance with permit limitations past their compliance dates will be included in an Administrative Order.

Any facilities/ ~~-~~equipment needed~~required~~ for pretreatment or equalization of wastewater prior to discharge into the sewerage system shall be provided and maintained at the Discharger's expense. Where pretreatment or equalization of wastewater flows is required by HRSD, plans, specifications and other pertinent data or information relating to such pretreatment or flow-control facilities shall be filed with HRSD prior to the construction or installation thereof. Neither filing of the plans nor the issuance of a Permit or compliance schedule shall be construed to indicate that HRSD in any way vouches for or warrants the capabilities of any such plans, specifications, facilities, or data in any manner. Subsequent additions, alterations or ~~additions~~ removal to such pretreatment or flow control facilities shall not be made without at least thirty (30) days prior written notice to HRSD and authorization given by HRSD.

The ~~Discharger~~ Industrial User shall provide adequate operating staff

qualified to carry out the proper operation, maintenance and testing functions required to ensure compliance with these Regulations and the ~~Discharger's~~ Industrial User's Permit.

HRSD shall have the authority to require that any discharge of etiologic agents or infections agents or substances to the sewerage system be rendered inactive or noninfectious prior to discharge if the infectious waste is ~~deemed~~determined to pose a potential threat to public health and safety or can become an etiologic agent subsequent to discharge to the sewerage system or will result in any violation applicable to wastewater discharge requirements.

305 Discharge of Hauled Wastes

A. Any Person proposing to discharge any wastes into the sewerage system via truck or other means of hauling must secure ~~an Indirect Wastewater Discharge Permit~~the appropriate control mechanism ~~in accordance with Part II of these Regulations~~. Persons discharging or proposing to discharge in such a manner shall be deemed to be a single permittee or Permit applicant, and a single Permit application and Permit shall be required for entities that are (1) under Common Control, (2) discharging or proposing to discharge via truck or other means requiring an Indirect Wastewater Discharge Permit, and (3) operating from a single physical business location or contiguous or adjacent physical business locations (including those separated only by public rights of way). A separate and specific authorization within an Indirect Wastewater Discharge Permit must be secured for each separate discharge of wastewater unless it can be demonstrated that the wastewater is routinely produced and is of such quantity and quality as to be in compliance with the Indirect Wastewater Discharge Permit and these Regulations. It shall be the responsibility of the Discharger to secure the Indirect Wastewater Discharge Permit from HRSD. Discharges of hauled wastes ~~may~~ shall only be made ~~only~~ at locations designated by HRSD.

B. Indirect Wastewater Discharge Permits for the discharge of hauled wastes are issued for septage, grease control device wastes from food service establishments, collection holding and transfer (CHT) wastes from vessels, and other specific wastewaters authorized in Permits. Other wastewaters are prohibited from discharge at HRSD facilities by truck or other conveyance other than the HRSD sewerage system.

C. Indirect Wastewater Discharge Permits will be issued by HRSD in those cases where the Permit holder or applicant demonstrates the ability to comply with these Industrial Wastewater Discharge Regulations. Indirect Wastewater Discharge Permits or the

reissuance of Indirect Wastewater Discharge Permits will be denied where the Permit applicant or holder does not demonstrate the ability to comply with these Industrial Wastewater Discharge Regulations or has been adjudged by an administrative agency or a court of competent jurisdiction to have violated the environmental protection laws of the United States, the Commonwealth or another state, or the requirements of HRSD or another administrative agency, and HRSD determines that such violation is probative of the Permit applicant's or holder's inability or unwillingness to comply with these Industrial Wastewater Discharge Regulations or Indirect Wastewater Discharge Permit. In making such determination, HRSD shall consider:

1. The nature and details of the acts attributed to the ~~P~~ppermit applicant or holder or r~~R~~related p~~P~~arties;

2. The degree of culpability of the p~~P~~ermit applicant or holder;

3. Whether the p~~P~~ermit applicant or holder has substantially complied with all legal requirements applicable to the p~~P~~ermit applicant's or holder's activities pursuant to such Permit;

4. Whether the p~~P~~ermit applicant or holder has implemented formal management controls to minimize and prevent the occurrence of any violations of environmental legal requirements; and

5. Mitigation ~~based upon~~through demonstration of environmental compliance by the p~~P~~ermit applicant or holder including, without limitation, prompt payment of damages or charges, cooperation with investigations, termination of employment or other relationships with key personnel or other persons responsible for any violations of environmental legal requirements.

D. Owners and/or operators of trucks, or other means of hauling, utilized in the conveyance of wastes into the sewerage system, or their lessees, shall secure an Indirect Wastewater Discharge Permit in accordance with Part II of these Regulations. The terms and conditions of the Indirect Wastewater Discharge Permit may include, but not be limited to, the following:

1~~A~~. Maximum permissible concentration of wastewater parameters.

2~~B~~. ~~Limits and rate of time of discharge or requirements for flow regulation.~~Authorized discharge locations, volume discharged, rate of discharge, date/time of discharge and

waste type(s).

3C. Requirements for inspection and sampling.

4D. Requirements for recording, maintaining and reporting information concerning the origin of each hauled load and identification of contributor(s) to said load.

5E. Prohibition of discharge of certain wastewater parameters, including mixed loads containing grease.

6F. Requirements for permanent identification of the Indirect Wastewater Discharge Permit holder on trucks and other conveyances.

7G. Other conditions as ~~deemed~~ determined appropriate by HRSD to ensure compliance with these Regulations.

306 Acceptance of Domestic Wastes through Conveyance(s) Other than Pipeline

Note: This section applies to the waste generator and not the waste hauler, regardless of whether the waste hauler is operating under an Indirect Wastewater Discharge Permit. This section does not apply to septic tank wastes.

Where domestic wastes are generated within the service boundaries of HRSD and no facilities are available for direct connection to the HRSD system, HRSD may accept these wastes by tank truck or other means of conveyance, as approved in accordance with the following criteria:

A. Approval for discharge must be obtained by the generator from the political jurisdiction in which the generator is located. If the discharge location is at a facility owned by another jurisdiction, approval must also be obtained from that jurisdiction.

B. Wastes must be conveyed in a manner suitable for such conveyance as determined by HRSD.

C. Wastes must be discharged in a manner, and at a location approved by HRSD and the local jurisdiction owning the discharge location.

D. Costs of service shall be billed in accordance with the prevailing schedule of HRSD rates. Should HRSD incur any additional costs, administrative or otherwise, which are not covered by the existing rate schedule, these costs shall also be billed.

E. A letter of ~~D~~discharge a~~A~~uthorization shall be issued by HRSD to the generator, and shall set forth terms and conditions for acceptance.

F. Requirement for permanent identification of Indirect Wastewater Discharge Permit holder on trucks and other conveyances.

G. Other conditions as ~~deemed~~ determined appropriate by HRSD to ensure compliance with these Regulations.

HRSD reserves the right to modify these criteria or add additional criteria at any time, as appropriate by HRSD to ensure compliance with these Regulations.

307 Acceptance of Unusual Wastewater

A. ~~General -~~ HRSD, at its discretion, may accept for treatment, under ~~certain~~ specified conditions, unusual wastewater not otherwise described in these Regulations. Unusual wastewater accepted for treatment by HRSD in accordance with this section shall be subject to all terms and conditions of these Regulations. Since HRSD's plants are primarily designed to treat organic materials, any unusual wastewater considered in this section must primarily contain wastes which can be biologically degraded or organic wastes that can be removed by the treatment process within the limits otherwise prescribed in these Regulations. In no case will HRSD accept unusual wastewater that would violate ~~Federal~~ categorical P~~p~~retreatment S~~s~~tandards as referenced in 9 VAC 25-31-30 and as described in 40 CFR Chapter I, Subchapter N, or any other provision of Federal regulations.

B. ~~Unusual Wastewater Generated by Rainfall -~~ HRSD may accept unusual wastewater generated as a result of rainfall if HRSD determines, based on the written recommendation of the regulatory agency having jurisdiction in each case (i.e., the Virginia Department of Health or the Virginia Department of Environmental Quality) that the unusual wastewater contains pollutants which render the wastewater unsuitable for direct discharge to State waters.

All unusual wastewater generated by rainfall and accepted by HRSD shall be discharged in a manner and at a time and rate ~~acceptable to~~specified by HRSD. HRSD shall require that the quantity of such wastes be minimized to the extent practicable and feasible, as determined by HRSD.

C. ~~Other Unusual Wastewater -~~ HRSD may accept other unusual wastewater which is not generated as a result of rainfall and which is not otherwise described in these Regulations, if the wastes are discharged in accordance with these Regulations.

D. ~~Rates for Unusual Wastewater -~~ Insofar as practicable, HRSD charges for services equal the cost of providing that service. Unusual wastewater may require a special rate as ~~deemed~~ determined appropriate by the HRSD Commission and as provided for in the current Rate Schedule.

308 Control of All Discharges to the HRSD System

HRSD shall maintain the right to deny or condition any new, existing or increased discharges to the HRSD system ~~before they occur~~. This condition shall apply both to Permittees and other Dischargers.

309 Categorical Industrial Users

A. Where a categorical Pretreatment Standard is expressed only in terms of either the mass or the concentration of a pollutant, HRSD may impose equivalent concentration or mass limits in accordance with 9 VAC 25-31-780C and 40 CFR Section 403.6(c).

B. When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, HRSD may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating effluent limitations applicable to individual Industrial Users as referenced in 9 VAC 25-31-780C and 40 CFR Section 403.6(c)(2).

C. When a categorical Pretreatment Standard is expressed only in terms of pollutant concentrations, an Industrial User may request that HRSD convert the limits to equivalent mass limits. The determination to convert concentration limits to mass limits is within the discretion of HRSD. HRSD may establish equivalent mass limits only if the Industrial User meets all the conditions below.

1. To be eligible for equivalent mass limits, the Industrial User must:

a. Employ, or demonstrate that it will employ, water conservation methods and technologies that substantially reduce water use during the term of its individual wastewater discharge permit;

b. Currently use control and treatment technologies adequate to achieve compliance with the applicable categorical Pretreatment Standard, and not have used dilution as a substitute for treatment;

c. Provide sufficient information to establish the facility's actual average daily flow rate for all waste streams, based on data from a continuous effluent flow monitoring device, as well as the facility's long term average production rate. Both the actual average daily flow rate and the long-term average production rate must be representative of current operating condition;

d. Not have daily flow rates, production levels, or pollutant levels that vary so significantly that equivalent mass limits are not appropriate to control the discharge; and

e. Have consistently complied with all applicable categorical Pretreatment Standards during the period prior to the Industrial User's request for equivalent mass limits.

2. An Industrial User subject to equivalent mass limits must:

a. Maintain and effectively operate control and treatment technologies adequate to achieve compliance with equivalent mass limits;

b. Continue to record the facility's flow rates through the use of a continuous effluent flow monitoring device;

c. Continue to record the facility's production rates and notify HRSD whenever production rates are expected to vary by more than 20 percent from its baseline production rates determined in paragraph hereof 309C(1)(c). Upon notification of a revised production rate, HRSD will reassess the equivalent mass limit and revise the limit as necessary to reflect changed conditions at the facility; and

d. Continue to employ the same or comparable water conservation methods and technologies as those implemented pursuant to paragraph hereof 309C(1)(a) so long as it discharges under an equivalent mass limit.

3. When developing equivalent mass limits, HRSD:

a. Will calculate the equivalent mass limit by multiplying the actual average daily flow rate of the regulated process(es) of the Industrial User by the concentration-based dDaily mMaximum and mMonthly aAverage sStandard for the applicable categorical Pretreatment Standard and the appropriate unit conversion factor;

b. Upon notification of a revised production rate, will reassess the equivalent mass limit and recalculate the limit as necessary to reflect changed conditions at the facility; and

c. May retain the same equivalent mass limit in subsequent individual wastewater discharger permit terms if the Industrial User's actual average daily flow rate was reduced solely as a result of the implementation of water conservation methods and technologies, and the actual average daily flow rates used in the original calculation of the equivalent mass limit were not based on the use of dilution as a substitute for treatment pursuant to paragraph hereof 301 F. The Industrial User must also be in compliance with 9 VAC 25-31-890 and 40 CFR Section 403.17 regarding the prohibition of bypass.

D. HRSD may convert the mass limits of the categorical Pretreatment Standards to concentration limits for purposes of calculating limitations applicable to individual Industrial Users. The conversion is at the sole discretion of HRSD.

E. Once included in its Permit, the Industrial User must comply with the equivalent limitations developed in the Section in lieu of the promulgated categorical Pretreatment Standards from which the equivalent limitations were derived.

F. Many categorical Pretreatment Standards specify one limit for calculating maximum daily discharge limitations and a second limit for calculating maximum monthly average, or 4-day average, limitations. Where such Pretreatment Standards are being applied, the same production or flow figure shall be used in calculating both the average and the maximum equivalent limitation.

G. Any Industrial User operating under a Permit incorporating equivalent mass or concentration limits calculated from a production-based Pretreatment Standard shall notify HRSD within two (2) business days after the Industrial User has a reasonable basis to know that the production level will ~~significantly change~~vary by more than 20% within the next calendar month. Any Industrial User not notifying HRSD of such anticipated change will be required to meet the mass or concentration limits in its Permit that were based on the original estimate of the long term average production rate.

H. HRSD may authorize an Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard if the Industrial User has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the discharge, or is present only at background levels from intake water and without any increase in the pollutant due to activities of the Industrial User. This authorization is subject to the following conditions:

1. The waiver may be authorized where a pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical Pretreatment Standard and otherwise includes no process wastewater.

2. The monitoring waiver is valid only for the duration of the effective period of the individual wastewater discharge permit, but in no case longer than five (5) years. The Industrial User must submit a new request for the waiver before the waiver can be granted for each subsequent individual wastewater discharge permit.

    a. In making a demonstration that a pollutant is not present, the Industrial User must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes.

    b. The request for a monitoring waiver must be signed by a duly authorized representative and include the certification statement in 9 VAC 25-31-780 A 2 b and 40 CFR Section 403.6(a)(2)(ii).

c. Non-detectable sample results may be used only as a demonstration that a pollutant is not present if the EPA approved method from 40CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.

d. Any grant of the monitoring waiver by HRSD must be included as a condition in the Industrial User's ~~p~~Permit. The reasons supporting the waiver, ~~and~~ any information submitted by the User in its request for the waiver, and any other underlying information and data must be maintained by the Industrial User and HRSD for three (3) years after expiration of the waiver.

e. Upon approval of the monitoring waiver and revision of the Industrial User's P~~p~~ermit by HRSD, the Industrial User must certify on each report with the statement referenced in 9 VAC 25-31-840 E 2 e and 40 CFR Section 403.12(e)(2)(v), that there has been no increase in the pollutant in its waste stream due to activities of the Industrial User.

f. In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the Industrial User's operations, the Industrial User must immediately: c~~C~~omply with the monitoring requirements of at least twice a calendar year, or other more frequent monitoring requirements imposed by HRSD, and notify HRSD of the changed situation.

g. This provision does not supersede certification processes and requirements established in categorical Pretreatment Standards, except as otherwise specified in the categorical Pretreatment Standard.

3. HRSD may reduce the requirement for periodic compliance reports to a requirement to ~~report~~ submit no less frequently than once a year, unless required more frequently in the Pretreatment Standard or by EPA/DEQ, where the middle-tier Categorical Industrial User's total categorical wastewater flow does not exceed any of the following:

a. 0.01 percent of the applicable HRSD POTW's design dry-weather hydraulic capacity, or 5,000 gallons per day, whichever is smaller, as measured by a continuous effluent flow monitoring device unless the

Industrial User discharges in batches;

b. 0.01 percent of the applicable HRSD POTW's design dry-weather organic treatment capacity; and

c. 0.01 percent of the maximum allowable headworks loading for any pollutant regulated by the applicable categorical Pretreatment Standard for which approved Local Limits were developed.

Reduced reporting is not available to Industrial Users that have in the last two (2) years been in Significant Non-~~c~~Compliance, as defined in 9 VAC 25-31-800 F 2 h and 40 CFR Section 403.8(f)(2)(viii). In addition, reduced reporting is not available to an Industrial User with daily flow rates, production levels, or pollutant levels that vary so significantly that, in the ~~opinion~~ determination of HRSD, decreasing the reporting requirement for this Industrial User would result in data that are not representative of conditions occurring during the reporting period.

In addition, any Non-Significant Categorical Industrial User, as defined in paragraph hereof 103 BBBB~~MMM~~(1), must submit an annual certification in accordance with 9 VAC 25-31-10 and 40 CFR Section 403.12(q).

310 Control of Contaminants of Emerging Concern (CEC)

HRSD has determined that the discharge by Industrial Users, management within the POTW, discharge to receiving waters, and presence within biosolids, and air exhausted by HRSD systems of CECs may bring about unacceptable risks to the POTW, and human health or pass-through or other environmental impacts addressed by these Regulations and the pretreatment program. HRSD shall address CECs in the following manner when determined necessary for the purposes of these Regulations.

A. HRSD may require Industrial Users to provide specified information on their purchase, use, manufacture (intentional or incidental), discharge as a wastewater or other waste constituent, or other information or data on specified CECs; and specified information on the Industrial User's products and processes that may contribute to the creation or discharge or CECs.

B. HRSD may require Industrial Users to provide specified wastewater discharge or other data on any CECs identified by either HRSD or by the Industrial User within subsection A above or other determined by HRSD to be potentially discharged by the Industrial User as a wastewater or other waste ~~constituent~~pollutant. Such data shall include any existing data in the possession or control of the Industrial User and may include requirements for the Industrial User to sample and generate at its cost such data. HRSD may also itself sample and generate such data and HRSD's costs therefore may be billed to the Industrial User as an additional service associated with sewered wastes.

C. When HRSD determines it necessary for the purposes of these Regulations, HRSD may require by Pretreatment Permit (through either a new permit, reissuance or amendment), by General Permit issued to Industrial Users with common characteristics, by Administrative Order, or otherwise pursuant to the terms of these Regulations actions by an Industrial User to address CECs. Such actions may include:

1. Further or routine monitoring requirements;

2. Numeric effluent limits adopted as Local Limits or calculated as either generally-applicable or User-specific technology-based limits; and

3. Requirements for Best Management Practices.

Any such requirements may be based on HRSD's determination of CEC numeric criteria based on available toxicity or other data~~e~~, EPA or Commonwealth of Virginia standards or criteria, or generally-accepted criteria determinations by recognized scientific entities.

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PART IV

INFILTRATION/INFLOW (I/I) PROGRAM

401 I/I Orders and I/I General Orders

HRSD shall be authorized to develop and issue I/I Orders to Industrial Users, and I/I General Orders to classes of Industrial Users, but not including single-family residential ~~sewer users~~discharges. Such Orders shall require an Industrial User or affected members of a class of Industrial Users to investigate and identify the presence or absence of I/I that originates on the property of the Industrial User; to quantify any such I/I; to develop plans for the reduction or elimination of I/I, subject to HRSD's approval; and to reduce or eliminate I/I from the facility to standards that may be specified in the Order or specified by HRSD thereafter. Such Orders may be phased, at the sole discretion of HRSD, to facilitate the work.

For each Industrial User having multiple sewer connections at a facility the I/I Order shall apply to all such connections unless specified otherwise.

402 Classes of Industrial Users – I/I General Orders

Classes of Industrial Users shall consist of facilities grouped by industrial or commercial process or business, size, location within sewer sheds, and other factors necessary or convenient for HRSD to effectively implement its I/I program.

I/I Orders to Industrial Users and I/I General Orders to classes of Industrial Users shall be developed by HRSD, and may be issued and effective at different times, in a manner that HRSD determines will allow it to effectively implement its I/I program.

403 Compliance Required

All Industrial Users subject to an I/I Order or an I/I General Order shall investigate and reduce or eliminate I/I from its facility in accordance with the terms of the Order.

404 Processing and Issuance of Individual I/I Orders

HRSD shall draft an individual I/I Order and forward the draft to the affected Industrial User for its review and comment. The Industrial User shall have thirty (30) days from receipt to provide comments to HRSD. Comments shall be submitted in accordance with Section 512 of these Regulations. Upon the expiration of the comment period, or written waiver of comment, HRSD shall issue the I/I Order with appropriate requirements consistent with these Regulations.

405 Processing and Issuance of I/I General Orders

When HRSD determines that an I/I General Order would be an effective approach, it shall draft a General Order and provide notice to potentially affected Industrial Users either in local newspapers of general circulation or by direct notice to the known potentially affected entities. The potentially affected Industrial Users shall have thirty (30) days from notice to provide comments to HRSD. Comments shall be submitted in accordance with Section 512 of these Regulations. Upon the expiration of the comment period, HRSD shall finalize the I/I General Order with appropriate requirements consistent with these Regulations.

406 Requirements of I/I Orders

Individual I/I Orders and I/I General Orders shall include provisions necessary and convenient to require the affected entities to evaluate I/I at their facilities; to determine whether existing I/I volumes are above I/I Criteria established by HRSD consistent with the Regional Technical Standards; and, if existing I/I volumes are above such Criteria, to reduce I/I volumes to a level equal to or below such Criteria.

The requirements of I/I Orders may include, but shall not be limited to, the following.

A. Specifications for I/I monitoring programs, including measurement or other assessment of I/I volumes and the manner in which such volumes vary over time.

B. Installation and construction of facilities for monitoring and measuring I/I volumes.

C. Protocols for analysis of rainfall and flow monitoring data.

D. Reporting of data to HRSD.

E. Comparison of I/I volumes to HRSD I/I Criteria.

F. Development of corrective programs to reduce I/I volumes.

G. Submission of monitoring and correction program plans to HRSD for review and approval.

H. Schedules and timeframes for the Industrial User's accomplishment of the I/I Order requirements.

I. Provisions for HRSD review and approval of elements of the I/I Order requirements.

J. Continued monitoring of the effectiveness of I/I correction programs.

407 HRSD Development of I/I Criteria

HRSD shall develop I/I Criteria which shall be numeric or other standards, against which HRSD shall compare the volume of I/I which enters a facility's lateral sewer or lateral sewer system. Such Criteria shall be developed to reflect and implement the Standards developed by HRSD and the contributing political jurisdictions to the HRSD wastewater system to reduce the frequency and volumes of sanitary sewer overflows and to further optimize the operations of the wastewater collection and treatment systems.

A. I/I Criteria may be different for different classes and sizes of Industrial Users.

B. The Criteria shall be based on volume per unit facility surface area, a multiplier of a dry weather lateral sewer flow statistic, a multiplier of a water consumption statistic, or some other measure designed to accomplish the goals of the Criteria stated immediately above in this section.

C. The Criteria shall specify (1) the I/I threshold at which a facility shall be required to develop corrective programs to reduce I/I volumes, and (2) the threshold at which such corrective programs shall be accepted as complete. The thresholds pursuant to (1) and (2) immediately above may be either the same measure or different measures.

D. The I/I Criteria shall be the presumptive criteria applied through individual I/I Orders and I/I General Orders, and the parties affected by draft Orders may, during their comment period, comment on the appropriateness of such Criteria to the affected facilities. Such comments may address any distinctions between the potentially affected facilities and the facilities on which the presumptive Criteria were based, but may not address cost of implementation as compared to cost of implementation for other facilities.

408 Duration of I/I Orders

I/I Orders shall continue in effect as to the Industrial User until the requirements of the Orders are completed and HRSD determines that the facility is in compliance with the I/I Criteria and notifies the Industrial User of the termination of the Order. The Industrial User may at any time submit a written request to HRSD for Order termination.

On termination of an I/I Order or the applicability of an I/I General Order to an Industrial User, HRSD may impose follow up or routine I/I monitoring, assessment and confirmation requirements by either modification of the Industrial User's existing Wastewater Discharge Permit or the issuance of a Wastewater Discharge Permit or other mechanisms to apply such requirements.

409 Modification of I/I Orders

An Industrial User subject to an I/I Order may submit a written request to HRSD for modification for good cause, which HRSD shall either grant or deny within sixty (60) days.

The application for an amended I/I Order shall not stay the requirements of an existing Order. Any Industrial User subject to an I/I Order shall notify HRSD in writing of any changed conditions that may warrant a change of Order requirements.

410 I/I Orders Not Transferrable

I/I Orders are not transferrable to any person without written approval from HRSD. HRSD may require modification or revocation and reissuance of an I/I Order to change the name of the affected Industrial User or to incorporate such other requirements as may be necessary.

PART V

ADMINISTRATION

501 Administration

Except as otherwise provided herein, the General Manager of HRSD shall administer, implement and enforce the provisions of these Regulations. Any power granted or duties imposed upon the General Manager may be delegated by the General Manager to persons in the employ of HRSD.

502 Monitoring Requirements

A. The dDischarger of wWastewater shall make measurements, including but not limited to, flow rates, flow volumes, and concentrations of any other particular parameters of their industrial wastewater discharges, at their own expense, in accordance with Appendix B and, in the judgment determination of HRSD, necessary to comply with these Regulations or the terms and conditions of any Permit or BMP issued herein under.

All wastewater samples must be representative of the Industrial User's discharge.

B. All wastewater analyses shall be conducted in accordance with appropriate procedures contained in 40 CFR Part 136 and amendments thereto. If no appropriate procedure is contained therein, a procedure or method one may be authorized by HRSD and shall be used to measure the wastewater parameter concentrations. All sampling, method, accreditation and quality control requirements shall be met. A quantitation limit equal to or lower than ½ the appropriate monthly average limitation must be used, unless otherwise approved by HRSD. HRSD may require a more sensitive quantitation limit for certainspecified parameters.

C. HRSD may require a Discharger to construct and/or maintain main offitain a wastewater and/or I/I monitoring facility of a design or configuration acceptable to HRSD, and sufficient to accomplish monitoring requirements, including, but not limited to representative sampling, as set forth in these Regulations or in any Permit, BMP or I/IAdministativeAdministrative Order, or other control mechanism. The failure of an Industrial User to keep its monitoring facility in good working order shall not be grounds for the Industrial User to claim that sample results are unrepresentative of its

discharge.

D. The sampling, analysis and flow measurement procedures, equipment, data and test results shall be subject at any reasonable time to inspection by HRSD. Flow measurement systems and all appropriate equipment shall be regularly ~~calibrated~~ certified as accurate in accordance with manufacturer's specifications, documented SOPs, or other procedures acceptable to HRSD.

E. The Permittee is responsible for resampling and analysis of any violated parameter based on self-monitoring within thirty (30) days of becoming aware of the violation.

503 Reporting Requirements

A. The Discharger shall provide that all compliance schedules contain milestone dates for implementing necessary pretreatment required to meet either c~~C~~ategorical Pretreatment Standards or HRSD requirements, and for implementing the requirements of an ~~I/I~~Administrative Order. A written progress report must be received by HRSD within fourteen (14) days following a milestone in the compliance schedule and within fourteen (14) days following the final date for compliance, indicating whether or not the milestone or final compliance date was met and if not, when such compliance with that increment of progress is expected. For good cause shown, as approved by HRSD, each milestone date of any compliance schedule may be extended up to a maximum of nine (9) months.

B. Dischargers subject to c~~C~~ategorical Pretreatment Standards must submit a report within ninety (90) days after the final date for compliance (or if a n~~N~~ew s~~S~~ource, following the commencement of the discharge) which contains flow and pollutant measurement data, and a certification of whether P~~p~~retreatment S~~s~~tandards are being met consistently and, if not, what additional operation, maintenance, or pretreatment is needed. Also, a Discharger subject to ~~C~~categorical Pretreatment Standards must submit a report to HRSD as specified in their Permit, indicating the nature and concentration of the discharge to HRSD limited by a c~~C~~ategorical Pretreatment Standard and a record of measured or estimated average and maximum daily flows.

Any facility determined to be a Non-Significant Categorical Industrial User by HRSD must annually submit the signed certification statement as referenced in paragraph hereof 309H(3).

C. All Dischargers must notify HRSD immediately of any slug discharge. Such notification shall be followed ~~, within five (5) days,~~ by a detailed written statement, to be received by HRSD within five (5) days of becoming aware of the circumstances, describing the cause(s) of the discharge and the measure(s) being taken to prevent future occurrences.

D. ~~All Dischargers must notify HRSD prior to any substantial change in the volume or characteristic of pollutants in the discharge to HRSD, including those which might result in a slug discharge.~~All Dischargers must notify HRSD prior to any substantial (20%) change in volume of wastewater discharged.
Additionally, any change in characteristic of pollutants discharged to HRSD shall be reported to HRSD prior to implementation. This includes those which may result in a slug discharge and/or cause noncompliance with these Regulations.

E. All Dischargers' permit applications, Baseline Monitoring Reports, 90-day compliance reports, periodic reports on continued compliance and any other designated HRSD report or certification must be signed by a ~~Duly Authorized Representative~~Responsible Official of the Discharger and be accompanied by the certification statement required in 9 VAC 25-31-780 A 2 b/840 Subpart D §3.2000, L, 40 CFR Part 3 ~~-~~and 40 CFR Section 403.6(a)(2)(ii). Any report which includes monitoring data shall include time, date and place of sampling, type of sample(s), name of person(s) performing the sampling, methods of analysis, and initials of the person(s) performing the analysis.

F. HRSD will meet reporting requirements as specified in 40 CFR Part 3 (Cross-Media Electronic Reporting [CROMERR]). Therefore, Industrial Users that submit electronic reports and data to HRSD through the HRSD Environmental Reporting System ("System"), to satisfy the requirements in this Section must register himself/herself as a Responsible Official (RO) and is required to provide a handwritten, wet-ink signature on a paper-based Electronic Signature Agreement (ESA) to HRSD for review and approval. Required updates must also be filed with HRSD.

After HRSD's approval, the RO can certify and submit reports and data through the System provided the RO reads and agrees to the Certification Statement, enters a ~~P~~personal ~~i~~Identification n~~N~~umber (PIN), and correctly answers security questions.

HRSD shall determine which specific Industrial User reports and data may be submitted through the System and may also determine that electronic submittal is required for specific reports

and data.
Electronic submittal of reports and data by any authorized RO under an electronic submittal program established pursuant to 40 CFR Part 3 is subject to the following requirements:

1. The Industrial User is subject to enforcement, for failure to comply with a reporting requirement, when electronically submitting reports and data required by these Regulations, and any applicable federal P~~p~~retreatment S~~s~~tandard and requirements, if the Industrial User does not comply with all requirements of the established electronic submittal program.

2. In the event that any submittal under the established electronic submittal program bears an electronic signature, the electronic signature has the same force and effect under these Regulations, and any permit issued under these Regulations, as if the submitting person had instead submitted a paper document with a ~~handwritten~~wet-ink signature.

3. Proof that a particular signature device was used to create an electronic signature including in reports or data submitted under the established electronic submittal program shall be sufficient ~~for HRSD to conclude~~ to establish that the person uniquely entitled to use the signature device did so with the intent to sign the electronic report or data and thereby certify and give effect to the electronic submittal.

4. Nothing in the established electronic submittal program limits the use of the electronically submitted reports or data, or any information contained therein, for enforcement remedies or actions under these Regulations or any permit issued under these Regulations.

G~~F~~. All Dischargers must maintain records of monitoring activities and results for the most current three (3) year period. These records and results shall be available on-site for inspection and copying by authorized HRSD personnel. This period shall be automatically extended for the duration of any HRSD enforcement proceeding or litigation concerning the Industrial User or HRSD, or where the Industrial User has been specifically notified of a longer retention

period by HRSD.

~~G.~~ H. All Dischargers must report results of any analysis as defined in paragraph 502B of these Regulations that are performed on wastewater discharged from permitted or designated sampling point(s), as referenced in the Permit, into the HRSD system. All laboratory reports, to include subcontract laboratory reports, shall be submitted to HRSD, in their entirety, unless otherwise specified by HRSD. In cases where the Pretreatment Standard requires compliance with a b~~B~~est m~~M~~anagement p~~P~~ractice (BMP) or pollution prevention alternative, the Industrial User must submit documentation required by HRSD or the Pretreatment Standard necessary to determine the compliance status of the Industrial User.

I~~H~~. All records of wastes which are collected, transported, stored or disposed of on or off-site, including but not limited to manifests, invoices, bills of lading, work orders, ledgers, logs and receipts, shall be available on-site for inspection and copying by authorized HRSD personnel. These records shall be maintained for the most current three (3) year period.

504 Duty to Mitigate

The Discharger shall take all reasonable steps to minimize, correct or prevent any discharge in violation of these Regulations which has a ~~reasonable~~ likelihood of adversely affecting human health or the environment.

505 Variations Between Actual and Reported Parameters

Should measurements or other investigations indicate that the ~~Discharger~~ Industrial User has discharged wastewater or I/I~~, the constituents of which are significantly different in~~ which vary in quantity and quality from those stated by the ~~Discharger~~Industrial User, ~~-~~HRSD shall notify the Industrial User~~Discharger~~ and require that they~~ Discharger~~ furnish all information in ~~his~~ their possession relevant to the apparent variance.

506 Access

Authorized HRSD personnel shall be provided reasonable access to all facilities which directly or indirectly discharge to HRSD's sewerage system at all times, including those occasioned by emergency conditions, and shall be allowed to perform inspections and take independent samples for compliance purposes at all times. Such inspections shall include all

records of wastes and I/I managed, whether disposed to the HRSD sewerage system or otherwise. HRSD shall have the right, without notice, to place on the Dischargers property or other locations as determined by HRSD, such devices as are necessary to conduct sampling, monitoring, or metering operations.

507 Rate Schedule for Industrial Wastewater Discharges

All Dischargers shall be billed in accordance with the prevailing Rate Schedule, to include any applicable permit fees.

508 Notices

Unless otherwise provided herein, any notice required to be given by HRSD under these Regulations shall be in writing ~~and served in person or by certified mail to the last address of the Discharger shown in the records of HRSD.~~which may include electronic communications.

509 Time Limits

Any time limit provided in any written notice, or in any provision of these Regulations, may be extended at the discretion of HRSD where applicable.

510 Partial Invalidity

If the provisions of any paragraph, section, article or portion of these Regulations are declared unconstitutional, unenforceable, or invalid by the final decision of any Court of competent jurisdiction, the provisions of the remaining paragraphs, sections or articles of these Regulations shall continue in full force and effect ~~t,~~ and shall not be affected thereby.

511 Disclosure Statements

Every p~~P~~ermit holder and p~~P~~ermit applicant shall file a Disclosure Statement with HRSD and shall update such Disclosure Statement on the reasonable request of HRSD. Such Disclosure Statement shall be a sworn statement, in such form as may be specified by HRSD, revealing for the p~~P~~ermit holder or p~~P~~ermit applicant, the corporate or other ownership of the permittee, the key personnel involved in the business activities that require a p~~P~~ermit and involved in p~~P~~ermit compliance, other permits and licenses held by the permittee, a listing and any explanation of any notices of possible violations, civil penalties, prosecutions, administrative orders

(whether by consent or otherwise) of other federal, state or local enforcement actions involving or pertaining to wastes transport or disposal or any other matters involving a felony, fraudulent practices or other illegality that may bring into question the permittee's ability to fully comply with Permit and other legal requirements. The Disclosure Statement shall address the pPermit holder, the pPermit applicant, the owners thereof, and key personnel.

512 Comment Submittal and Review

HRSD accepts comments by hand-delivery, email, fax or mail. Comments shall include the name, address, and telephone number of the commenter, what is being contested, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within the approved comment period will be considered.
Following the comment period, HRSD will make a determination regarding the proposed action.

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PART VI

VIOLATIONS AND ENFORCEMENT

601 Enforcement Response Plan

HRSD shall enforce an Enforcement Response Plan on all Dischargers who violate these Regulations as required in 9 VAC 25-21-800 and 40 CFR Section 403.8.

602 ~~-~~Suspension of Permits and/or Discharge Privileges

A. HRSD may suspend a Permit or a discharge privilege for a period not to exceed sixty (60) days when suspension is necessary in order to stop a discharge which, in the judgment of HRSD, presents an imminent hazard to the public, to the local environment, or to any portion of the ~~sewerage system~~POTW.

B. In addition, HRSD may suspend a Permit or discharge privilege for failure to pay any and all costs as outlined in Sections 507, 604, 609 and 610 of these Regulations.

C. Any Discharger notified of a suspension of ~~his~~ their Permit or discharge privilege shall immediately cease discharge of all wastewater into the sewerage system. In the event of a failure of a Discharger to comply voluntarily with the suspension order, HRSD shall take such steps as are reasonably necessary to ensure compliance.

HRSD may issue or reinstate the Permit or authorize the discharge privilege on determination that the facility or discharger is in compliance with terms and conditions of these Regulations.

D. Any suspended Discharger may file for reconsideration in accordance with Section 701 of these Regulations. The hearing provided therein shall be held within thirty (30) days of the request, and a decision rendered within ten (10) days after the conclusion of the hearing.

E. A request for a hearing shall not automatically stay the suspension notification by HRSD.

603 Revocation of Permits and/or Discharge Privileges

~~Violation of~~ Aany of the following conditions may result in the revocation of

a Direct or Indirect Wastewater Discharge Permit or discharge privilege:

A. Failure of the Discharger to accurately and fully report the wastewater volume, constituents, and characteristics of the discharge.

B. Failure of the Discharger to report ~~significant changes in wastewater volume, constituents, or characteristics~~changes as outlined in paragraph 503D of these Regulations.

C. The D~~d~~ischarger tampers with or knowingly renders inaccurate any monitoring device or sample collection method.

D~~C~~. Refusal of reasonable access to the Discharger's premises for the purpose of inspection or monitoring as outlined in Section 506 of these Regulations.

E~~D~~. Failure to pay any and all costs as outlined in Sections 507, 604, 609 and 610 of these Regulations.

~~E.~~F. Violation of any condition of the Permit, BMP or of any of these Regulations or any other applicable government regulations or discharge prohibitions.

~~F.~~G. Failure to achieve compliance within the suspension period, not to exceed sixty (60) days.

604 Consequences of Revocation

Before any discharge privilege or Permit ~~issuance~~reinstatement, the Discharger must apply for, and be granted, a new Permit or discharge approval. In addition, the discharger must pay all delinquent fees, penalties and costs occasioned by the violation(s). Costs shall include all expenses, including general and administrative expenses, incurred by HRSD in revoking the Permit or discharge privilege; ~~-~~disconnecting the Discharger from the sewerage system, and those incurred due to the violation(s) as provided in Sections 507, 604, 609 and 610 of these Regulations. When all costs cannot be readily determined, HRSD may require and accept a deposit which in its judgment is sufficient to cover the foregoing, and which will be subject to appropriate adjustment after all costs have been determined.

605 Termination of Service

In addition to the suspension and/or ~~termination of service~~revocation referenced in Section 602 and 603 of these Regulations, HRSD may

suspend or terminate water and/or wastewater service when:

A. Materials damaging to the sewerage system or treatment processes are released by the Discharger to the sewerage system.

B. It is determined that the ~~industrial~~ Discharger is delivering into the sewerage system wastes that cannot be sufficiently treated by existing treatment facilities serving the Discharger, or which require treatment that is not normally provided, or which are a contributing cause of HRSD's inability to meet any applicable VPDES effluent limitations.

C. The Discharger has repeatedly violated these Regulations, its Permit, BMP, Administrative Order or ~~I/I Order~~other control mechanism to such an extent that compliance with these Regulations, the Permit, BMP, ~~or I/I~~Administrative Order, or other control mechanism cannot, in the judgment of the General Manager, reasonably be expected.

606 Notice of Proposed Revocation of Discharge Permit or Termination of Service

HRSD shall not terminate service to a Discharger or revoke a Permit without first delivering to the Discharger written notice of the proposed action of termination or revocation, or both. The notice shall state the reason or reasons for said termination or revocation, and shall allow a reasonable time, as determined by HRSD, for the Discharger to take such action as is necessary for compliance with the Regulations and its discharge Permit, BMP, Administrative Order, or other control mechanism ~~or I/I Order~~. Lacking such compliance, HRSD may terminate service to such discharger and/or revoke its Permit or discharge privileges and shall notify the Discharger thereof. Dischargers so notified may petition for reconsideration in accordance with the provisions of Section 701 of these Regulations. Nothing contained herein is intended to deter, hinder or stop HRSD from taking immediate action to suspend or terminate service to a Discharger, without notice, when there is imminent hazard to the public, to the environment, or to any portion of the ~~sewerage system~~POTW.

607 Injunctive Relief

HRSD may seek injunctive relief for violations of these Regulations.

608 Dischargers in Significant Non-Compliance

HRSD shall publish at least annually in a local newspaper of general

circulation that provides meaningful public notice within the jurisdictions served by HRSD a list of Dischargers in Significant Non-Compliance in accordance with 9 VAC 25-31-800 and 40 CFR Section 403.8(f)(2)(viii).

609 Civil Liability

In addition to rates as described in Section 507 of these Regulations, any Person or Discharger who violates any provision of these Regulations or any condition or limitation of a Permit, BMP, Administrative Order or ~~plan approval~~other control mechanism ~~related thereto, or I/I Order,~~ shall also be financially responsible and liable to HRSD, for all costs incurred by HRSD associated with the violation(s), including, but not limited to, the following:

A. Cost of mileage and labor incurred in detecting, investigating and correcting the violation.

B. Laboratory analysis costs associated with detecting, investigating and correcting the violation.

C. Additional treatment costs caused by the violation or associated with detecting, investigating and correcting the violation.

D. Costs of any additional equipment acquired or expended by HRSD for detecting, investigating or correcting the violation.

E. Repair and/or replacement of any part of the ~~sewerage system~~POTW damaged as a result of the violation.

F. Any liability, damages, fines or penalties incurred by HRSD as a result of the violation.

G. Any and all expenses of outside professionals to include, but not be limited to, engineers, scientists, and/or legal counsel.

H. Other costs as are associated with the detecting, investigating and correcting of the violations.

610 Civil Penalty

In addition to rates as described in Section 507 of these Regulations, any Discharger who violates any provision of these Regulations or any condition or limitation of a Permit, BMP, Administrative Order or ~~plan approval~~other control mechanism ~~related thereto, or I/I Order~~, may be assessed a Civil Penalty and any Civil Liability pursuant to Section 609 by Enforcement Order after an opportunity for a hearing as provided in Va.

Code § 15.2-2122 (10.a). No such Civil Penalty shall exceed $32,500 per violation, or $100,000 per Enforcement Order, except with the consent of the Discharger. The actual amount of any Penalty assessed shall be based on the severity of the violations, the extent of any potential or actual environmental harm or facility damage, the compliance history of Discharger, any economic benefit realized from the noncompliance, and the ability of the Discharger to pay the Penalty.

If a hearing is held pursuant to this section, the provisions of paragraphs 701 A and B hereof shall not apply to such action.

These provisions shall not preclude HRSD from proceeding directly in Virginia Circuit Court to compel compliance with the Regulations, any Permit, BMP, or other control mechanism, Administrative Order or Enforcement Order, or seek civil penalties as provided under Virginia law for violation of the same nor be interpreted as limiting any otherwise applicable legal remedies or sanctions. Each day during which a violation is found to have existed shall constitute a separate violation, and any judicial civil penalties imposed shall be applied to the purpose of abating, preventing or mitigating environmental pollution. Not be way of limitation, HRSD shall consider such civil penalties in the event of any of the following:~~Any of the following may be punishable by Civil Penalty imposed by the Circuit Court of the Commonwealth having jurisdiction. Any such Civil Penalty shall not be more than $32,500, per violation.~~

A. ~~(a) V~~violation ~~by a~~by a Discharger within a three year period of the assessment of a Civil Penalty against such Discharger, or such Discharger's consent thereto, for the same or a similar violation~~,~~.

B. ~~(b) A~~any intentional violation~~,~~.

C. ~~(c) a~~Any falsification of records or reports~~, or~~

~~(d)~~

D. ~~a~~Any violation resulting in environmental harm or facility damage. ~~shall be punishable by Civil Penalty imposed by the Circuit Court of the Commonwealth having jurisdiction. Any such Civil Penalty shall not be more than $32,500, per violation.~~

~~If a hearing is held pursuant to this section, the provisions of paragraphs 701 A and B hereof shall not apply to such action.~~

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PART VII

REVIEW AND APPEAL

701 Review and Appeal Procedures

The following procedures control the course of reconsideration, rehearing, and appeal to HRSD with respect to the construction, application, or enforcement of these Regulations, and may be used if informal methods do not achieve satisfaction.

A. Any Permit applicant, Permittee, or authorized Discharger adversely affected by any decision, act, or determination made by or on behalf of HRSD by the General Manager, or ~~his~~ their authorized representative, in interpreting or implementing the provisions of the Regulations, ~~or any~~ Permit, ~~or~~ BMP ~~issued thereunder~~, ~~or any I/I~~Administrative Order, or other control mechanism issued thereunder, may file with HRSD a written Request for Reconsideration. Such Request shall be received at HRSD's ~~main~~ P3 office within thirty (30) days of the date of the receipt of HRSD's action. All Requests shall set forth the Requestor's name, address, specific action(s) for reconsideration, along with a brief statement of the reasons it is requesting and the factual basis for the request. Requests ~~shall be sent by certified mail to the main office of HRSD.~~will be addressed once received at the HRSD P3 office located at 1460 Air Rail Avenue, Virginia Beach, VA 23455.

B. HRSD shall notify the Requestor of the time and place for a hearing within fifteen (15) days after receipt of any Request for Reconsideration. The hearing shall be conducted by a Hearing Officer appointed by HRSD's General Manager not less than ten (10) days or more than thirty (30) days after receipt of such notice. The hearing may be continued for a reasonable time for good cause shown, in the discretion of the Hearing Officer. The hearing shall be held as an informal consultation and conference at which the Requestor, in person or by counsel, shall present his argument, evidence, data and proof in connection with the issue submitted. The Hearing Officer shall not be bound by legal rules of evidence and shall submit to the General Manager a written report of the hearing and make recommendations for disposition, sending a copy to the Requestor and/or their counsel, if any. The hearing shall be recorded and the Requestor shall be provided with a ~~transcript~~copy of the recording ~~thereof~~ upon request. The General Manager shall review the Hearing Officer's report and issue his decision to the Requestor by certified mail within thirty (30) days after the hearing.

C. The Requestor may appeal the ruling of the General Manager or an issued Enforcement Order by filing a request for an appearance before the Commission. Such request shall be received at HRSD's ~~main~~P3 o~~O~~ffice within thirty (30) days of the date of the General Manager's decision. HRSD shall notify the requestor of the date and time for their appearance before the HRSD Commission. The HRSD Commission will consider the report of the Hearing Officer and the decision of General Manager, and will hear arguments of the Requestor or counsel, and will make its decision thereof and notify the Requestor.

D. The filing of a Request for Reconsideration, rehearing, appeal or for appearance before the HRSD Commission shall not stay any action by HRSD. If a termination of discharge is required by HRSD, permission to discharge may be reinstated on a temporary basis during the hearing process, for good cause shown, at the discretion of the General Manager.

PART VIII

~~TRADE SECRETS~~CONFIDENTIAL INFORMATION

801 ~~Trade Secrets~~Confidential Information

Upon written request by any Discharger furnishing a report, permit application or questionnaire, those portions of any document, which might disclose ~~trade secrets or secret processes~~confidential information, shall not be made available to the public. The physical/chemical characteristics of a discharger's wastewater will not be recognized as confidential information ~~or as a trade secret~~.

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APPENDIX A

MONTHLY AVERAGE DISCHARGE LIMITATIONS

CALENDAR MONTH AVERAGE*

All parameters in mg/L except pH
Flow in thousand gallons per day (K)

PARAMETER	0-<10K	10-<20K	20-<30K	30-<40K	40-<200K	200-<400K
Arsenic (As)	0.5	0.4	0.3	0.2	0.1	0.05
Cadmium (Cd)	0.5	0.4	0.3	0.2	0.1	0.05
Chromium (Cr)	10.0	8.0	6.0	4.0	2.0	1.0
Copper (Cu)	10.0	8.0	6.0	4.0	2.0	1.0
Cyanide (CN^-)	2.5	2.0	1.5	1.0	0.5	0.3
Lead (Pb)	5.0	4.0	3.0	2.0	1.0	0.5
Mercury (Hg)	0.05	0.04	0.03	0.02	0.01	0.005
Nickel (Ni)	5.0	4.0	3.0	2.0	1.0	0.5
Phenolic Compounds	5.0	4.0	3.0	2.0	1.0	0.5
Silver (Ag)	**	1.0~~0~~	0.75	0.50	0.25	0.13
Zinc (Zn)	10.0	8.0	6.0	4.0	2.0	1.0
O&G (SGT-HEM)	500	400	300	200	100	50
pH (SU)	≥5.0	≥5.0	≥5.0	≥5.0	≥5.0	≥5.0

*Average of any number of daily values obtained during a calendar month.

	GPD	GPD	GPD
**Silver (Ag)	0-<1000	1000-<5000	5000-<10000
	6.25	3.13	1.25

Batch grab limitations are assigned on a case-by-case basis (either calendar day maximum or calendar monthly average).

DAILY MAXIMUM DISCHARGE LIMITATIONS

CALENDAR DAY MAXIMUM*

All parameters in mg/L except pH
Flow in thousand gallons per day (K)

PARAMETER	0-<10K	10-<20K	20-<30K	30-<40K	40-<200K	200-<400K
Arsenic (As)	0.5	0.4	0.3	0.2	0.1	0.05
Cadmium (Cd)	0.5	0.4	0.3	0.2	0.1	0.05
Chromium (Cr)	25.0	20.0	15.0	10.0	5.0	2.5
Copper (Cu)	25.0	20.0	15.0	10.0	5.0	2.5
Cyanide (CN^-)	5.0	4.0	3.0	2.0	1.0	0.5
Lead (Pb)	10.0	8.0	6.0	4.0	2.0	1.0
Mercury (Hg)	0.10	0.08	0.06	0.04	0.02	0.01
Nickel (Ni)	10.0	8.0	6.0	4.0	2.0	1.0
Phenolic Compounds	10.0	8.0	6.0	4.0	2.0	1.0
Silver (Ag)	**	2.0	1.5	1.0	0.5	0.3
Zinc (Zn)	25.0	20.0	15.0	10.0	5.0	2.5
O&G (SGT-HEM)	500	400	300	200	100	50
pH (SU)	≥5.0	≥5.0	≥5.0	≥5.0	≥5.0	≥5.0

*Maximum for any sample obtained during any calendar day.

	GPD	GPD	GPD
**Silver (Ag)	0-<1000	1000-<5000	5000-<10000
	12.5	6.3	2.5

Batch grab limitations are assigned on a case-by-case basis (either calendar day maximum or calendar monthly average). Facilities with flows greater than 400,000 gallons per day shall be assigned limitations on a case-by-case basis in accordance with paragraph hereof 301X.

APPENDIX B

~~INDUSTRIAL~~DIRECT WASTEWATER DISCHARGE PERMIT
GUIDANCE FOR SELF-MONITORING REQUIREMENTS ~~GUIDANCE~~

I. Self-Monitoring Sampling ~~Type and~~ Frequency Based on Average Daily Flow (GPD) after completion of IWC

Average Daily Flow (GPD)	~~Sample Type~~	Frequency	Parameters
400,000 or greater	~~Composite~~	Daily	For those necessary, or those determined as necessary, based on facility's proximity to treatment plant, flow, or potential for receiving treatment plant upset due to a permit level being exceeded.
100,000 - 399,999	~~Composite~~	Weekly	Those ~~deemed~~ determined necessary.
50,000 - 99,999	~~Composite~~	Monthly	Those ~~deemed~~ determined necessary.
<50,000	~~Grab~~	Monthly	Those ~~deemed~~ determined necessary.

Sample type (i.e. grab/composite) to be determined by HRSD and is dependent on any applicable regulation or potential for variation throughout the discharge day.

II. Self-Monitoring Frequency Reduction Based on Permit Limit Compliance

Industrial User	Permit Limit Compliance	Frequency Reduction (As ~~deemed~~ determined appropriate by HRSD)
Significant	Limit compliance for one (1) year	Weekly, Monthly or Bi-monthly
	Limit compliance for two (2) years	Monthly, Bi-monthly or Quarterly
Non-significant	Limit compliance for one (1) year	Monthly or Quarterly
	Limit compliance for two (2) years	Quarterly or Semi-annually

III. Parameter Selection for Self-Monitoring Requirements

Parameter selection may be based on the industry's Permit Application information, self-monitoring, or HRSD survey and grab sampling data.

If a parameter concentration is consistently less than or equal to (≤) one half (½) of the applicable calendar day average limit, no self-monitoring requirement is necessary for that parameter.

If a parameter concentration is consistently greater than (>) one half (½) of the applicable calendar day average limit, a self-monitoring requirement will be required.

HRSD

Cleaning wastewater every day for a better Bay.

Pretreatment & Pollution Prevention

ENFORCEMENT RESPONSE PLAN

Effective July 1, 1992

Revised ~~July 1, 2012~~July 1, 2022

PREAMBLE

This Enforcement Response Plan (ERP) was developed in accordance with Section 601 of HRSD's Industrial Wastewater Discharge Regulations, requirements of HRSD's VPDES Permits (9 VAC 25-31-800 F 5), and with requirements of the Clean Water Act (40 CFR Part 403.8)(f)(5). The Plan outlines enforcement mechanisms for violations of HRSD's Industrial Wastewater Discharge Regulations. It is based on the Virginia Water Control Board's Compliance Auditing System (CAS) which is used for enforcement of Virginia Water Control law and the VPDES Permit system. This ERP is guidance. Although the ERP will be followed and used in making all enforcement decisions, it does not abrogate HRSD's enforcement discretion.

Violations of HRSD's Regulations will be assessed points in accordance with their severity and number as described in the Enforcement Response Guide (pages X4-X7). Enforcement Point assessments will be managed in accordance with the Enforcement Point Assessment Criteria (page X3). The Enforcement Response Timetable (page X2) is an indication of maximum time frames for initiation of enforcement actions by HRSD. The Civil Penalty Schedule outlines the assessment of penalties based on various types of administrative and technical violations (page X8).

INVESTIGATION OF NONCOMPLIANCE

The Pretreatment & Pollution Prevention Division staff will generally investigate Industrial User (IU) compliance with permits, best management practices (BMPs), or equivalent control mechanisms or the provisions of HRSD's Industrial Wastewater Discharge Regulations in several ways including:

- On-site inspections of the Industrial User to include scheduled and unscheduled visits;
- Scheduled and unscheduled sampling of the Industrial User's effluent;
- Review of self-monitoring data from the Industrial User.

Reference

U.S. Environmental Protection Agency (USEPA). 1989. "Guidance for Developing Control Authority Enforcement Response Plans."

ENFORCEMENT RESPONSE TIMETABLE

The table lists the maximum amount of time that HRSD shall take to initiate enforcement action after confirmation of the deficiencies or violation(s). Violations or deficiencies, which endanger health, property or the environment, are considered emergencies and shall receive immediate attention.

Enforcement Response	Timetable
Problem Notification ~~Form~~ (PN ~~Form~~)	Issued on-site
Non-Compliance Notification (NCN)	Issued on-site
Notice of Deficiency (NOD)	30 days
Notice of Violation (NOV)	30 days
Compliance Letter	30 days
Show Cause Notice	30 days
Civil Penalty	60 days
Revoke Permit/Suspend Service	60 days

ENFORCEMENT POINT ASSESSMENT CRITERIA

For the purpose of managing point assessments, the following shall apply:

A. Points shall be accumulated on a running 180-day basis based on the violation date and sampling location as defined in the control mechanism.

B. When the total number of points equals or exceeds three (3) points during a 180-day period, the Industrial User may be required to attend a Show-Cause meeting to review the violations and identify actions to be taken to prevent recurrence.

C. When the total number of points equals or exceeds four (4) points during a 180-day period, the General Manager or assigned designee shall determine appropriate enforcement actions which may include civil penalties, revocation of the Permit, and/or termination of service. In the case of not-for-profit public agencies, ~~an additional~~ enforcement action may include the option of entering into an enforcement agreement.

D~~C~~. When a Permit is modified to reflect a change in ownership, all accumulated points do not transfer to the new owner; unless the modification only reflects a name change or an attempt to evade the Permit requirements or enforcement actions. Determination of the suitability of point voidance shall be at the sole discretion of HRSD.

~~D. All the above are in addition to those steps outlined in Appendix B of HRSD's Industrial Wastewater Discharge Regulations.~~

E. Non-conformance resulting in a Notice of Deficiency (NOD)~~ies or violations occurring as a result of circumstances beyond the Permittee's reasonable control as determined by HRSD~~ will not be assessed points.

F. A Notice of Violation (NOV) issued for ~~s occurring as a result of~~ circumstances beyond the Industrial User's reasonable control, as determined by HRSD, will not be assessed points.

G~~F~~. The term "harm caused" shall be defined as "Damage to public or private property; injury to any person(s); POTW process upset/inhibition/disruption of normal operation and/or adverse change in POTW effluent characteristics/concentrations; adverse change in POTW sludge (biosolids) characteristics/concentrations; and/or adverse impact on the environment."

H~~G~~. The terms "significant", "mitigate", "imminent risk", and "sufficient cause" are as determined by HRSD.

~~H. The term "days" or "day" shall be defined as the "due date" and shall be a calendar day. If the "due date" falls on a weekend~~

~~or legal holiday, the next business day becomes the legal "due date" (Virginia Code Section 1-13.3:1).~~

I~~I~~. The term "report" shall be defined as any submission required by HRSD.

J~~J~~. A single operational upset, occurring as a result of circumstances beyond the Permittee's reasonable control as determined by HRSD, which leads to simultaneous violations of more than one pollutant parameter, may be treated as a single violation for point assessment, provided there is no harm caused.~~A single operational upset, which leads to simultaneous violations of more than one pollutant parameter, may be treated as a single violation for point assessment, provided there is no harm caused.~~

K. If multiple technical violations occur within the same calendar month, points may only be assessed for the first occurrence per parameter for each sampling location.

L. Point assessments are at the sole discretion of HRSD.

ENFORCEMENT RESPONSE GUIDE

		Administrative Violations/Deficiencies	Enforcement Responses
1.		Report requiring authorized signature is improperly signed (including electronic)	
	RIS1	- First occurrence (unauthorized ~~agent~~signatory)	0.2 pt., NOV
	RIS2	- Repeated occurrence within 180 days	0.5 pt., NOV
2.	LSR24	Failure to provide 24-Hour notification of self-monitoring violation	0.5 pt., NOV
3.		Late submittal of required report(s)	
	LSR	- Less than or equal to 30 days with no technical violations within the report First occurrence within the calendar year	NOD
	LSR1	- Less than or equal to 30 days	0.5 pt., NOV
	LSR2	- ~~More~~ Greater than 30 days	1.0 pt., NOV
	LSR3	- Reports are repeatedly (third occurrence in 180 days) late or not received	2.0 pts., NOV~~, Compliance Letter~~
4.	FRS1	Failure to report slug discharge	1.0 pt., NOV and refer to technical violation 11
5.	LSR5	Failure to submit 5-~~D~~day ~~letter~~ written statement for unauthorized and/or slug discharge	0.5 pt., NOV
6.		Failure to report new/changed discharge	
	FRD	- Late notification (in excess of 30-day requirement)	NOD
	FRD1	- Discovered by HRSD inspector	1.0 pt., NOV and refer to technical violation 11
7.	FAL1	Falsification of required report(s)	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
8.		Failure to report results of all wastewater analyses from the permitted or designated sampling point(s) within required timeframes in accordance with paragraph 503(G) of the HRSD Industrial Wastewater Discharge Regulations.	
	FRR1	- First occurrence	1.0 pt., NOV
	FRR2	- Repeated occurrence within 180 days	3.0 pts., NOV, Show Cause Meeting
9.		Failure to properly maintain records to include logs, inspections or other reports as required ~~(BMP and non-permitted facilities)~~	
	~~FM~~	~~- First occurrence~~	~~NOD~~
	FM1	- ~~After NOD~~First occurrence	1.0 pt., NOV
	FM2	- Repeated ~~occurrence within 180 days after NOV~~of same failure within 360 days	2.0 pts., NOV~~, Compliance Letter~~
~~10.~~	~~IR1~~	~~Failure to maintain records for 3 years~~	~~1.0 pt., NOV~~
11.	RPR1	Refusal to provide records	3.0 pts., NOV, Show Cause Meeting

ENFORCEMENT RESPONSE GUIDE (Cont'd)

	Administrative Violations/Deficiencies	Enforcement Responses
12.	Compliance schedule milestone actions	
CSM1	- Less than or equal to 30 days delayed without ~~sufficient cause~~prior approval	1.0 pt., NOV
CSM2	- More than 30 days delayed without ~~sufficient cause~~prior approval	3.0 pts., NOV, Show Cause Meeting
CSM3	- Final milestone delayed without ~~sufficient cause~~prior approval	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
13.	Late or no response to NOV, NOD, Administrative Order milestone update or other official notification(s)	
FTR1	- Less than or equal to 30 days	1.0 pt., NOV
FTR2	- Greater than 30 days	2.0 pt., NOV
14.	~~Inadequate Permitting Requirement Submittal~~	
PAR1	- Permit application, reapplication or request for ~~addendum~~ amendment not received within required timeframe	1.0 pt., ~~-~~NOV
PAR2	- Permit application, reapplication or request for amendment~~Addendum~~ not submitted within required timeline after receiving NOV	3.0 pts., NOV, Show Cause Meeting
15. FPB1	Failure to pay any and all costs as determined by HRSD	1.0 pt., NOV plus Possible Suspension of Discharge Privileges
16. ESA	Failure of Responsible Official (RO) to follow Terms & Conditions of Electronic Signature Agreement (ESA)	1.0 pt., NOV

	Technical Violations/Deficiencies	Enforcement Responses
1.	Failure to correct deficiency/violation ~~(NOD) within timeframe required by HRSD~~	
FC~~D~~1	- First occurrence	1.0 pt., NOV
FC~~D~~2	- Repeated (same deficiency/violation) within two (2) years	2.0 pts., NOV~~, Compliance Letter~~
2.	Failure to meet all sampling, method, accreditation, and quality control requirements.~~Improper sampling techniques (per sample type); and/or improper analytical techniques (per test method)~~	
IST1	- First occurrence	0.5~~2~~ pt., NOV
IST2	- ~~Repeated~~ Repeat of same ~~occurrence~~ failure within 180 days	1.0 pt., NOV
3.	Failure to sample/resample or analyze/reanalyze any required parameters	
FAP1	- First occurrence	1.0 pt., NOV
FAP2	- Repeated occurrence within ~~180 days~~360 days (per parameter)	2.0 pts., NOV~~, Compliance Letter~~
4. FIS1	Failure to install or properly maintain required sampling point(s), monitoring and/or metering equipment	3.0 pts., NOV, Show Cause Meeting

ENFORCEMENT RESPONSE GUIDE (Cont'd)

		Technical Violations/Deficiencies	Enforcement Responses
5.		Access denial	
	ELR1	- First occurrence	3.0 pts., NOV, Show Cause Meeting
	ELR2	- Repeated occurrence within two (2) years	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
6.		Access Delay	
	RA1	- First occurrence	1.0 pts., NOV
	RA2	- Repeated occurrence within two (2) years	3.0 pts., NOV, Show Cause Meeting
7.	FCM1	Failure to calibrate required ~~flow measuring~~monitoring and/or metering equipment	1.0 pt., NOV
8.		Diluting waste streams in lieu of pretreatment	
	DOW1	- No evidence of intent	1.0 pt., NOV
	DOW2	- Evidence of intent	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
9.	FMH1	Failure to mitigate discharge(s) in accordance with paragraph 504 of HRSD's Industrial Wastewater Discharge Regulations	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
10.		Failure to properly operate and maintain pretreatment equipment	
	FPM1	- First occurrence	1.0 pts., NOV
	FPM2	- Repeated occurrence of same failure within two (2) years	3.0 pts., NOV, Show Cause Meeting
11.		Unauthorized and/or slug discharge ~~(Permitted & Non-Permitted Facilities)~~	
	UD	- No harm caused, no evidence of intent, and ~~self-reported~~self-reported	NOD
	UD1	- No harm caused, no evidence of intent	1.0 pt., NOV
	UD2	- No harm caused and evidence of intent	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
	UD3	- Harm caused	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
12.		Failure to follow requirements or conditions of Permit~~Failure to follow special conditions section of Permit~~	
	FSC1	- First occurrence	~~0.5~~1.0 pts., NOV
	FSC2	- Repeat~~ed~~ occurrence of same failure within two (2) years	2.0 pts., NOV~~, Compliance letter~~
13.		HRSD permit limitation exceeded (per calendar month) or violation of the HRSD Industrial Wastewater Discharge Regulations	
	EPL1	- Isolated, no harm caused	1.0 pt., NOV
	EPL2	- Isolated, harm caused	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
	EPL3	- Chronic violation (3 occurrences within 180 days, excluding BMR monitoring), no harm caused	3.0 pts., NOV, Show Cause Meeting
	EPL4	- Chronic violation, harm caused	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B

ENFORCEMENT RESPONSE GUIDE (Cont'd)

	Technical Violations/Deficiencies	Enforcement Responses
14.	Removing non-potable water (NPW) from HRSD facilities	
NPW1	- First occurrence	3.0 pts., NOV Show Cause meeting
NPW2	- Repeated occurrence within two (2) years	4.0 pts., NOV, refer to Enforcement Point Assessment Criteria, Item B
15.	Failure to follow requirements of the BMP	
~~BMP~~	~~- First occurrence~~	~~PN Form~~
FFB	- ~~After PN Form~~First occurence	NOD
FFB1	- After NOD	1.0 pts., NOV
FFB2	- ~~After NOV~~Repeat of same failure within two (2) years	2.0 pts., NOV, Compliance Schedule
16.	General deficiency – Action required	NOD

HRSD PRETREATMENT & POLLUTION PREVENTION DIVISION

PERSONNEL RESPONSIBLE FOR ENFORCEMENT RESPONSES

Administrative Assistant
Chief ~~of Pretreatment & Pollution Prevention~~
~~Pretreatment & Pollution Prevention~~ Manager~~s~~
Specialist
~~Administrative Technician~~
~~Pretreatment & Pollution Prevention Coordinator~~
~~Administrative Assistants~~
~~Pretreatment & Pollution Prevention~~ Supervising Specialist~~s~~
~~Water Quality Specialists~~
~~Water Quality~~ Technician~~s~~

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PRETREATMENT & POLLUTION PREVENTION CIVIL PENALTY SCHEDULE

The following is a Civil Penalty Schedule for facilities which accumulate four or more points within a 180-day timeframe under HRSD's Pretreatment & Pollution Prevention Enforcement Response Plan. This schedule assesses penalties based on various types of administrative and technical violations in accordance with the Enforcement Response Plan.

Civil Penalties will be assessed within the listed ranges and the following factors may be considered:

- **The severity of the violation(s)**
- **The extent of any potential or actual environmental harm or facility damage**
- **The compliance history of the user**
- **Any economic benefit realized from the noncompliance**
- **The ability of the user to pay the penalty.**

A Civil Penalty shall not be issued within thirty (30) days from receipt of Notice of Violation unless written consent from the discharger is given to HRSD. Should a discharger consent to an assessed Civil Penalty, written consent must be provided to HRSD. If no written response is received after thirty (30) days from receipt of the Notice of Violation, consent is understood, and an Enforcement Order will be issued.

No Enforcement Order assessing a Civil Penalty shall be issued until after the Discharger has been provided an opportunity for a hearing, except with the consent of the Discharger. Notice of the hearing shall be served either personally or by registered or certified mail, return receipt requested, on any ~~duly authorized representative~~ Responsible Official of the Discharger at least 30 days prior to the hearing. The notice shall specify the time and place of the hearing, facts and legal requirements related to the alleged violation, and the amount of any proposed penalty. The hearing shall be before a Hearing Officer. At the hearing the Discharger may present evidence including witnesses regarding the occurrence of the alleged violation and the amount of the penalty, and the Discharger may examine any witnesses for HRSD. A verbatim record of the hearing shall be made. Within 30 days after the conclusion of the hearing, HRSD shall make findings of fact and issue the Enforcement Order on such terms as may be appropriate or withdraw the Enforcement Order.

If the discharger does not consent to the proposed penalty, an Enforcement Order shall inform the Discharger of his right to review before the Commission as provided in section 701 of the Industrial Wastewater Discharge Regulations, and ~~his~~ their right to judicial review as provided in Va. Code section 15.2-2122 (10.c).

Where the civil penalty amount exceeds the minimum of the appropriate range, additional justification will be provided. Civil penalty amounts are based on whether or not an Industrial User is considered "significant" as required by Federal Law (see definition below).

Point Value	Civil Penalty Ranges	
	~~Non-Significant~~ Industrial User	Significant Industrial User*
0.2	$100 – 200	$200 - 400
0.5	$250 – 500	$500 - 1,000
1.0	$500 - 1,000	$1,000 - 2,000
2.0	$1,000 - 2,000	$2,000 - 4,000
3.0	$1,500 - 3,000	$3,000 - 6,000
4.0	$2,500 - 5,000	$5,000 - 10,000

A civil penalty not to exceed $32,500 per violation may be assessed by HRSD if issued through a court in accordance with the Code of Virginia 1950, § 62.1-44.32 et seq.

~~*Significant Industrial User - An Industrial User which: (1) is subject to categorical pretreatment standards; (2) discharges an average of 25,000 [1] gallons per day~~

~~or more of process wastewater to a POTW; (3) contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW; or (4) is designated by HRSD on the basis that the industrial user has a reasonable chance for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.~~

~~[1]HRSD may categorize industries in this flow range (except Categorical industries~~Industrial Users~~) as a "Non~~ ~~Significant Industrial User" if it is determined that the industrial user has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.~~

Resource: Bruce Husselbee

AGENDA ITEM 6. – February 22, 2022

Subject: James River Treatment Plant Shoreline Stabilization
Cost Sharing Agreement

Recommended Action: Approve the terms and conditions of the Cost Share Agreement with the City of Newport News for the reimbursement of design and construction costs associated with the James River Treatment Plant Shoreline Stabilization project and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

CIP Project: JR013800

Project Description: This project includes stabilization of approximately 900 linear feet of eroding shoreline along the James River. The project area is located along HRSD's property at the James River Treatment Plant (300 linear feet) and along the adjacent City of Newport News's property at the City Farm section of Riverview Farm Park (600 linear feet). The project will incorporate living and hardened shoreline design elements to stabilize the eroding shoreline.

This project was initiated to evaluate, design, and construct stabilization measures for a portion of shoreline within HRSD's James River Treatment Plant property boundary. The stabilization measures are being coordinated with the trail designs required by the existing property acquisition agreement with the City of Newport News. While coordinating elements of the trail design, the City of Newport News requested assistance from HRSD to address problem areas along the adjacent James River shoreline owned by the City of Newport News. The City of Newport News will reimburse HRSD for engineering fees associated with design of and construction costs for the additional shoreline stabilization efforts.

Funding Description: No additional project funding is requested at this time. A request for additional appropriation may be required at the time of contractor award due to the expanded scope of this project to include the City of Newport News's shoreline.

Agreement Description: The attached Cost Sharing Agreement between HRSD and City of Newport News has been reviewed by HRSD legal counsel.

AGREEMENT FOR COST SHARING
OF THE

HAMPTON ROADS SANITATION DISTRICT
JAMES RIVER TREATMENT PLANT SHORELINE STABILIZATION (JR013800)

AND

CITY OF NEWPORT NEWS
CITY FARM SHORELINE STABILIZATION

THIS COST SHARING AGREEMENT ("Agreement"), between the CITY OF NEWPORT NEWS, VIRGINIA, a political subdivision of the Commonwealth of Virginia ("CITY") and the HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia ("HRSD") is entered into this _____ day of_____, 2022 ("Effective Date").

RECITALS

R:1. HRSD is constructing its **James River Treatment Plant Shoreline Stabilization** project as shown on **Exhibit 1** (the "HRSD Facilities") under the James River Treatment Plant Shoreline Stabilization CIP JR013800; and

R:2. The CITY is constructing its own **City Farm Shoreline Stabilization** as shown on **Exhibit 1** (the "CITY Facilities") as part of the City of Newport News Capital Improvement Program; and

R:3. The design and construction of the HRSD Facilities and the CITY Facilities (collectively referred to as the "Improvements") will involve the design, construction, and inspection of shoreline stabilization; and

R:4. HRSD and the CITY agree that it is in the best interest of the parties to have the Improvements designed and constructed as one project (the "Project").

R:5. HRSD agrees to include the design and construction of CITY Facilities with the design and construction of the HRSD Facilities, in accordance with the approved plans and specifications; and

R:6. CITY agrees to reimburse HRSD for that portion of the costs of the design and construction of the Improvements attributable to CITY Facilities under the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, in consideration of the above provisions and agreements set forth herein, and other good and valuable consideration, the receipt and sufficiency of which

is hereby acknowledged, the parties agree as follows:

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

1. HRSD will employ Vanasse Hangen Brustlin Inc. ("ENGINEER"), to prepare plans and specifications for the design of the HRSD Facilities and the CITY Facilities. A location map of the Improvements is shown on Exhibit 1.

2. HRSD and the CITY, in coordination with the ENGINEER, will meet to coordinate, review, and approve a set of final plans and specifications for the Improvements (the "Final Plans and Specifications").

B. Payment of the Design Costs

1. HRSD will compensate the ENGINEER for all engineering design costs, including but not limited to the cost of preparing the Final Plans and Specifications and any amendments thereto (the "Design Costs") for both the HRSD Facilities and, on the CITY's behalf, the CITY Facilities.

2. The CITY shall reimburse HRSD for the Design Costs attributable to the CITY Facilities in one lump sum payment due once HRSD notifies the CITY that the design of the Improvements is complete and the Project is bid-ready. HRSD shall provide the CITY with an invoice detailing the CITY's share of the Design Costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the Design Costs as detailed in the invoice.

3. Pursuant to HRSD's agreement with ENGINEER, the current estimated Design Cost for the CITY Facilities is $56,547.42.

C. Compliance

All design work shall comply with HRSD's Design and Construction Standards, latest edition, and the Hampton Roads Planning District Commission Regional Construction Standards, latest edition. Any changes to the Final Plans and Specifications shall be approved by HRSD and the CITY.

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Improvements (the "Improvement Costs"), as more particularly defined by the Final Plans and Specifications and Project Documents (as hereinafter defined) shall include:

   a. Cost of construction of the Improvements;

   b. Cost of advertising for bids;

   c. Cost of approvals and permits required for the construction of the Improvements;

   d. Costs for construction contract administration and inspection;

   e. Costs of services rendered by ENGINEER other than Design Costs;

   f. Costs for all temporary or permanent easements and fee simple land acquisitions; and

   g. Any related miscellaneous essential expenses.

2. The current estimated Improvement Costs of the construction of the HRSD Facilities is $600,000 and the estimated Improvement Costs of the construction of the CITY Facilities is $1,450,000.

B. Approval of Construction Contract Documents; Contractors; Change Orders

1. Except as otherwise provided in this Agreement, HRSD shall be responsible for preparing, finalizing, and executing any and all front end documents, construction contracts, architectural contracts, engineering contracts, drawings, surveys, bidding documents, bonds, insurance documents, and all amendments, revisions and modifications thereto, relating to the construction of the project (collectively, the "Project Documents").

2. HRSD and the CITY agree that before any construction work is to begin under this Agreement on the Improvements, HRSD and the CITY will jointly review and approve the proposed construction contract and its associated agreements (the "Construction Contract"). This approval shall be in writing. If the CITY does not approve the Construction Contract, the CITY Facilities will not be included in the Project and this Agreement shall terminate.

3. HRSD and the CITY shall review and agree upon the necessary qualifications for the contractors and any subcontractors prior to HRSD bidding the project and confirm that the Construction Contract is awarded to a firm that meets the stated requirements.

4. The contractors and any subcontractors awarded the project by HRSD (the "Contractors") shall be responsible for all necessary permits and approvals necessary for the Improvements.

5. HRSD shall acquire all necessary plan approvals and property acquisitions related to HRSD Facilities prior to the award of the Construction Contract.

6. The CITY shall acquire all necessary plan approvals and property acquisitions related to CITY Facilities prior to the award of the Construction Contract.

7. ENGINEER, in coordination with HRSD and CITY, will review and approve shop drawings related to the Improvements.

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

9. HRSD will review and approve change orders related to the HRSD Facilities. CITY will review and approve change orders related to the CITY Facilities.

C. Payment of Cost of Improvements

1. The Improvement Costs shall be apportioned among the parties as follows:

   a. HRSD will administer and be responsible for bearing one hundred percent (100%) of the cost of the HRSD Facilities.

   b. The CITY will be responsible for bearing one hundred percent (100%) of the cost of the CITY Facilities.

   c. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:

      (1) HRSD shall be solely responsible for costs due to a Change Order requested by HRSD; and

(2) The CITY shall be solely responsible for costs due to a Change Order requested by the CITY.

(3) Change Orders related to design errors, omissions or changed field conditions shall be the responsibility of the entity impacted by the change. If the Change Order impacts the work of both HRSD and the CITY, the responsibility shall be equally shared.

2. During the course of construction, HRSD shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Improvements for all Improvement Costs, including those for which the CITY is responsible. The CITY shall reimburse HRSD for all such payments made on its behalf. The CITY shall pay its share of the Improvement Costs to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). HRSD shall provide the CITY with an invoice detailing the CITY's share of the Improvement Costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the Improvement Costs as detailed in the invoice.

3. In conjunction with the above, and for additional clarity, it is agreed that HRSD shall pay for the CITY's share of the construction administration and construction inspection costs (the "CA and CI Costs"). Should the CITY request inspections beyond those recommended by the ENGINEER for the Project, it is agreed the CITY shall pay for any such additional inspection. HRSD shall provide the CITY with an invoice detailing the CITY's share of the CA and CI Costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the CA and CI Costs as detailed in the invoice.

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

1. HRSD shall be responsible for operation and maintenance of the HRSD Facilities during and after construction.

2. CITY shall be responsible for operation and maintenance of the CITY Facilities during and after construction.

III. SCHEDULE

The construction is anticipated to begin by June 2022 and be complete by June 2023. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Hearings or Meetings

HRSD and the CITY will each be responsible for noticing and holding any public hearings or other open meetings required under applicable law. The parties agree to reasonably cooperate and assist each other in the conduct of such meetings.

B. Bidding of the Improvements

1. HRSD will issue bidding documents for construction of the Improvements. The CITY agrees to provide administrative support during the bidding phase. In particular the CITY shall:

    a. Attend the preconstruction meeting.

    b. Provide timely responses to the ENGINEER for any questions, requests for clarification, or addenda during the biding phase.

    c. Provide miscellaneous support to HRSD as required during the bidding phase.

2. HRSD will receive bids for construction of the Improvements. All bids received will be reviewed and approved by the CITY and HRSD prior to award of the Construction Contract. The CITY and HRSD shall negotiate in good faith to resolve financial matters with regards to bidding the Improvements. The bidding procedure shall be conducted in accordance with the Virginia Public Procurement Act and the HRSD Procurement Policy.

C. Administration

HRSD shall provide contract administration of the Improvements.

D. Inspection

1. HRSD shall provide inspection for the Improvements. The CITY shall reimburse HRSD for the CA and CI Costs over and above standard and customary inspection of the CITY Facilities, as determined by the Engineer. The inspector shall have the authority to assure the Improvements are constructed in accordance with the Project Documents.

E. Progress Meetings

1. ENGINEER shall arrange and conduct monthly progress meetings. HRSD and CITY shall attend and participate in these meetings.

F. Correction of Construction Defects in the Improvements

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

G. Construction Record Drawings

ENGINEER shall provide HRSD and the CITY approved construction record drawings in accordance with HRSD's Design and Construction Standards, latest edition, and Hampton Roads Planning District Commission Regional Construction Standards, latest edition, and CITY's Utility Policy and Design and Construction Standards, latest edition.

V. GOVERNING LAW

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

VI. TERMINATION

This Agreement may be terminated by the CITY or HRSD in the event that the other party materially breaches this Agreement and such breach is not cured within sixty (60) days of the defaulting party's receipt of written notice of such breach from the non-defaulting party; or by mutual agreement of the CITY and HRSD. Anything herein or elsewhere to the contrary notwithstanding, any such termination of this Agreement shall not relieve the parties of their obligation to pay all of the Improvement Costs incurred prior to termination, whether or not those amounts are due and payable as of the termination date.

VII. NOTICE

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

TO HRSD

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

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

With Copy to:
Robyn H. Hansen, Esquire
Sands Anderson PC
263 McLaws Circle, Suite 205
Williamsburg, VA 23185

For: City of Newport News
Cynthia D. Rohlf, City Manager
City of Newport News, Virginia
2400 Washington Avenue
Newport News, VA 23607

With Copy to:
City Attorney
2400 Washington Avenue
Newport News, VA 23607

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. SEVERABILITY

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

XI. INSURANCE

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

XII. TERM OF AGREEMENT

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

XIII. FORCE MAJEURE

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

XIV. INDEPENDENT CONTRACTOR

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

XV. SUBCONTRACTOR

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

XVI. WAIVER

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

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

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

XVII. INTEGRATION

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

Signature pages follow

IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on February 22, 2022.

HAMPTON ROADS SANITATION DISTRICT

By_____
Jay A. Bernas, General Manager

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

The foregoing Agreement was acknowledged before me this_____ day of

_____, 2022, by Jay A. Bernas, HRSD General Manager.

_____
Notary Public

My commission expires:

Registration No.:

IN WITNESS WHEREOF, the City of Newport News, Virginia has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution Number _____ adopted by the City Council on _____, 2022.

CITY OF NEWPORT NEWS, VIRGINIA

By_____
Cynthia D. Rohlf, City Manager

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney

STATE OF VIRGINIA
CITY OF NEWPORT NEWS, to-wit:

The foregoing Agreement was acknowledged before me this_____ day of

_____, 2022 by Cynthia D. Rohlf, City Manager, City of Newport News, Virginia.

_____
Notary Public

My commission expires:

Registration No.:

Approved as to Form and Correctness:

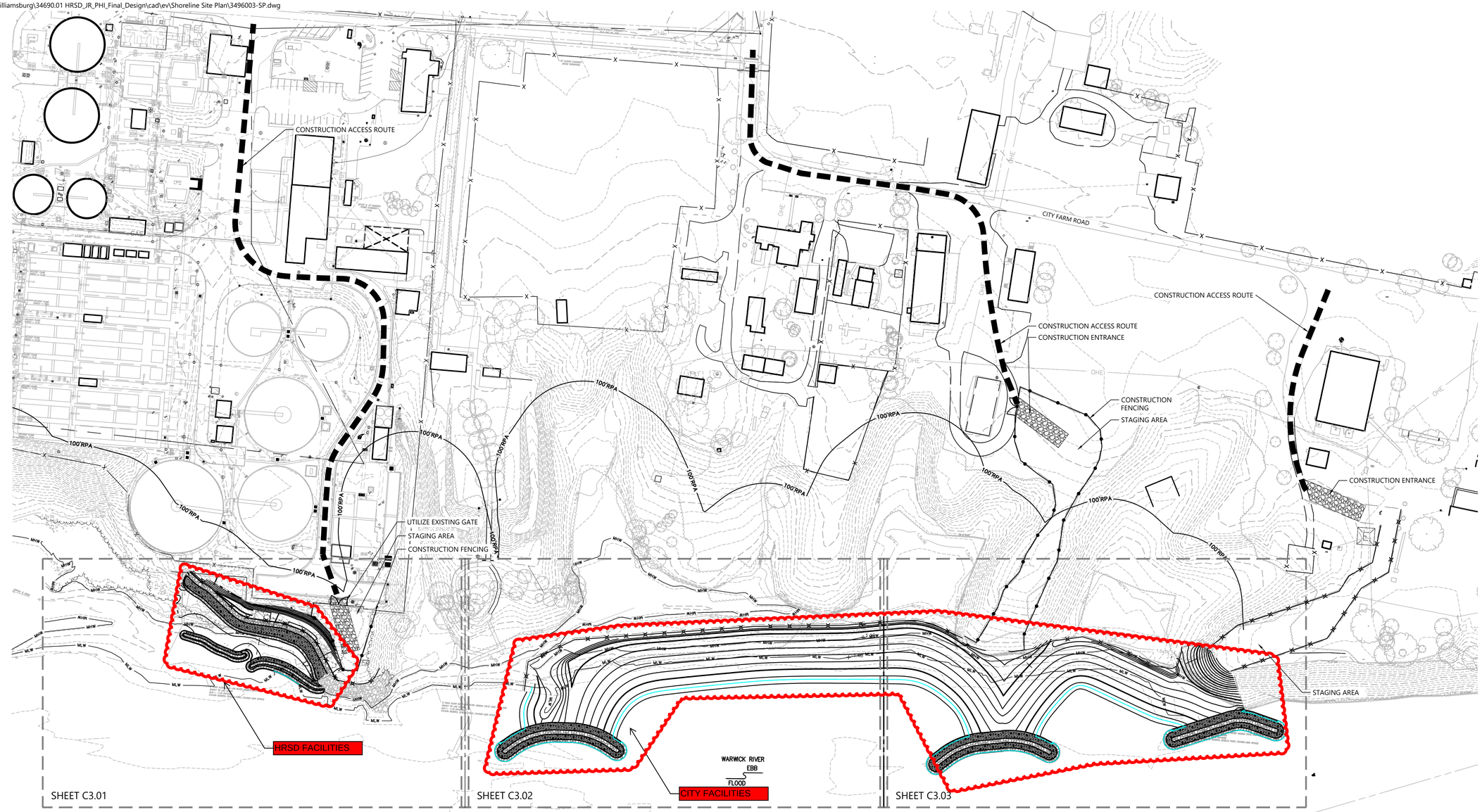
_____
Deputy City Attorney

Approved as to Content:

_____
Director of Parks, Recreation & Tourism

Exhibit 1 - HRSD and CITY Facilities

[Attached]



0 37.5 75 150 Feet

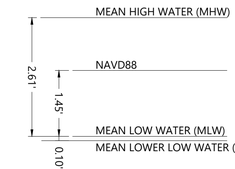
General Notes

General

1. ALL DISTURBED SLOPES 3:1 AND STEEPER SHALL RECEIVE EROSION AND SEDIMENT CONTROL BLANKET MATTING. BLANKET MATTING TO BE COIR EROSION MATT TYPE 900 MINIMUM OR APPROVED EQUAL.
2. CONTRACTOR SHALL COORDINATE REVEGATION OF THE RPA WITH THE VIRGINIA DEPARTMENT OF FORESTRY. DISTURBED AREAS WITHIN THE RPA AND ALONG STEEP SLOPES, ASIDE FROM AREAS THAT WILL RECEIVE SAND FILL, ARE TO BE REVEGETATED WITH THREE TROPIC LAYERS (CANOPY, UNDERSTORY, AND SHRUB).
3. SUBGRADE STABILIZATION AND COMPACTION, PLACEMENT, AND COMPACTION OF INFILL MATERIAL SHALL BE OBSERVED BY VIRGINIA REGISTERED GEOTECHNICAL ENGINEER.
4. ALL STOCKPILES WILL BE IN ACCORDANCE WITH SECTION 24-46 OF JCC CODE.

vhb.com
vhb
351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500

Diagram Of Datum Plane



Legend

- CE CONSTRUCTION ENTRANCE
- SF SILT FENCE
- LIMITS OF DISTURBANCE
- CONSTRUCTION FENCING
- PS PERMANENT SEEDING
- TS TEMPORARY SEEDING
- BM BLANKET MATTING

James River Land Shoreline Stabilization

101 City Farm Road
Newport News, VA

No.	Revision	Date	Appvd.

Designed by | Checked by

Issued for | Date

Progress Review — December 6, 2021

Not Approved for Construction

Drawing Title
Overall Site Plan

Drawing Number
C3.00

Sheet of

Project Number
34690.03

Resource: Bruce Husselbee

AGENDA ITEM 7. – February 22, 2022

Subject: Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II Additional Appropriation, Comprehensive Agreement, and Proposal Compensation

Recommended Actions:

a. Appropriate additional funding in the amount of $29,891,859.

b. Approve a comprehensive Agreement with Garney Companies, Inc. including a Contract Cost Limit (CCL) of $262,102,000

c. Approve a payment to Crowder Construction Company in the amount of $295,000.

d. Approve a payment to Kiewit Infrastructure South Co. in the amount of $295,000.

CIP Project: NP013820

Budget	$263,024,806
Previous Expenditures and Encumbrances	($3,524,665)
Available Balance	$259,500,141
Proposed Contract Award to Contractor	($262,102,000)
Proposed Contingency	($26,700,000)
Proposal Compensation Payment	($590,000)
Project Shortage/Requested Additional Funding	($29,891,859)
Revised Total Project Authorized Funding	$292,916,665

Type of Procurement: Competitive Negotiation – Design-Build

The use of the Design-Build project delivery method was approved by Commission at the August 25, 2020, meeting. A Public Notice for the Request for Qualifications was issued on June 13, 2021. Four teams submitted Statements of Qualifications on July 14, 2021, and all teams were considered to be responsive and deemed fully qualified, responsible, and suitable to the requirements in the Request for Qualifications. Three Design-Build teams were short-listed. A Request for Proposals was issued on August 6, 2021, to the short-listed teams. All three short-listed teams submitted Technical Proposals on November 10, 2021, and interviews were held on December 6, 2021. Price Proposals were submitted on January 19, 2022. The points received and the final ranking for each of the short-listed teams is listed below:

Proposers	SOQ	Technical Proposal	Price Proposal	Total Ranking	Recommended Selection Ranking
Garney Companies, Inc.	24.12	29.23	33.94	87.29	1
Kiewit Infrastructure South Co.	24.68	26.48	35.00	86.16	2
Crowder Construction Company	22.40	24.17	34.78	81.35	3

The Selection Committee recommends the top ranked team, comprised of Garney Companies, Inc. with Tetra Tech, Inc. as the design engineering consultants. The teams not selected were Kiewit Infrastructure South Co. and Crowder Construction Company. They completed the selection process and were fully responsive to the procurement process. As approved at the June 22, 2021, Commission Meeting, a proposal compensation in the amount of $295,000 is recommended for each team.

Contract Description: The comprehensive Agreement is for design-build services to design, build and start up the necessary infrastructure as described in the project description below. The Agreement includes the requirement to reach substantial completion no later than September 16, 2025, so the Nansemond Treatment Plant (NTP) can accept wastewater from the Boat Harbor service area in accordance with regulatory requirements and nutrient discharge reduction targets.

Project Description: The project will include the design, construction, and commissioning of improvements to the primary and secondary treatment process at the NTP. As part of a regional solution, the NTP will expand capacity, treating up to 50 million gallons of wastewater per day (MGD), and will increase effluent quality. The treatment process improvements include new primary and secondary clarifiers, new primary gravity thickeners, new aeration and equalization tanks, additional sludge dewatering infrastructure, new switchgear and cabling, and upgrades to the effluent pump station. A connection between the Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land Portion) termination to the influent distribution box is also included. These improvements are required to provide stable source water quality that meets the influent requirements of the future NTP SWIFT facility.

Funding Description and Analysis of Cost: The proposed CCL of $262,102,000 reflects a complete project based on the scope within the basis of design plus approximately $2.1 million of accepted alternates proposed as improvements by the design-builder. The relative design costs included in the CCL are within a reasonable range when considered as a percent of construction cost.

The project was appropriated in October 2020, based on a Class 5 cost estimate. At the completion of conceptual documents development in June 2021, a Class 3 cost estimate was prepared by the Program Manager, AECOM Technical Services, Inc (AECOM). At that time, the engineer's opinion of probable construction cost was $293,850,000. The Class 3 cost estimate was updated in early January 2022 to $311,750,000, which reflected a more current snapshot of the market, including supply chain issues, material and labor costs increases, and the impact of HRSD's vaccine policy requirements. All three Price Proposals received were within 20 percent of, and were less than, the Class 3 estimates.

The request for additional appropriation includes a ten percent Owner's contingency to accommodate potential cost impacts to the project such as further material cost increases, potential scope improvements, and other unknowns. The SWIFT Program Management Team, AECOM with Hazen and Sawyer PC, will provide Owner's Consultant services under the SWIFT Program Management project (GN016320) during the execution of the Comprehensive Agreement. The task order for these services has been submitted as a separate agenda item.

Schedule:	Design-Build	March 2022
	Project Completion	September 2025

Staff will provide a briefing to review this recommendation and impacts to the overall SWIFT Program.

AGENDA ITEM 8. – February 22, 2022

Subject: Sanitary Sewer Project 1950 – Part 1 30-Inch Gravity Sewer
New CIP, Initial Appropriation, Contract Award (>$200,000) and Task Order (>$200,000)

Recommended Actions:

a. Approve a new CIP project (**VP014021**) for Sanitary Sewer Project 1950 – Part 1 30-Inch Gravity Sewer.

b. Appropriate total project funding in the amount of $4,232,935.

c. Award a contract to Bridgeman Civil, Inc. in the amount of $3,554,000.

d. Approve a task order with Gannett Fleming, Inc. in the amount of $323,536.

CIP Project: VP014021

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Bridgeman Civil, Inc.	$3,554,000
Gaston Brothers Utilities, LLC	$3,737,922
Tidewater Utility Construction, Inc.	$5,473,100

Engineer Estimate: $1,524,000

Contract Status:	Amount
Original Contract with Gannett Fleming (VP014020)	$143,869
Total Value of Previous Task Orders	$884,835
Requested Task Order	$323,536
Total Value of All Task Orders	$1,208,371
Revised Contract Value	$1,352,240
Engineering Services as % of Construction	5.8%

Project Description: This project will construct a 30-inch gravity sewer along Park Avenue from the new Park Avenue Pump Station to Bainbridge Boulevard. This new gravity sewer piping is required to handle the additional flows from the new Ferebee Avenue Pump Station and additional flow from the Park Avenue service area.

The CIP project was originally presented and approved by the Commission in May 2017 as the Sanitary Sewer Project 1950 12-Inch Force Main and 24 and 18-Inch Gravity Replacement (VP014020). Due to constraints on the project, it was decided to separate this construction contract from the rest of the work and bid it in advance.

This project is included in Phase 2 of the U.S. EPA Consent Decree Rehabilitation Action Plan and must be complete by May 5, 2025.

Funding Description: The total cost for this project is estimated at $4,232,935 based on a Class 1 cost estimate and includes a $355,400 contingency, which is 10% of the construction bid.

Contract Description: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids from potential bidders. The project was advertised on January 10, 2022, and three bids were received on February 2, 2022. The two lowest bids were within 5% of each other. The engineer's estimate was developed by Gannett Fleming at $1,524,000 which was significantly lower than the construction bids. The gravity sewer is located in front of an elementary school and the sewer has to be installed during the summer while the school is on summer break. The average depth of the sewer is 18 feet deep. The tight construction schedule and deep gravity sewer were reflected in the bids developed by the contractors, These two factors should have had a higher weighting in the construction estimate created by Gannett Fleming. The design engineer, Gannett Fleming, Inc., evaluated the bids and recommends award to the lowest responsive and responsible bidder, Bridgeman Civil, Inc. in the amount of $3,554,000.

Task Order Description and Analysis of Cost: This task order will provide contract administration and field engineering and inspection services during construction. A meeting was held to discuss the project and scope of services. A fee of $323,526 was negotiated to provide the required oversight for the project. The cost of the task order is based upon an estimation of hours and rates to complete the work.

Schedule:

Design	January 2022
Construction	March 2022
Substantial Completion	August 2022
Project Completion	September 2022

Resource: Bruce Husselbee

AGENDA ITEM 9. – February 22, 2022

Subject: South Shore Gravity Sewer Improvements Phase 1
Initial Appropriation

Recommended Action: Appropriate total project funding in the amount of $942,804.

CIP Project: GN015000

Project Description: This project will rehabilitate and/or replace gravity sewer segments at various locations in the South Shore Interceptor System. Condition assessment activities indicate that these assets present a material risk of failure due to inflow and infiltration and physical defects. This project is included in Phase 2 of the U.S. EPA Consent Decree Rehabilitation Action Plan and must be complete by May 5, 2025.

Funding Description: The total project cost estimate of $942,804 includes approximately $45,000 in PER phase services, $69,732 in design phase services, $662,457 in construction phase costs, and $165,615 of project contingency and is based on a Class 5 CIP-prioritization level cost estimate prepared by HRSD. Engineering services will be completed by Gannett Fleming, Inc. under the General Engineering Services annual services contract and the cost for design is below the $200,000 Commission approval threshold.

Schedule:

PER	February 2022
Design	August 2022
Bid	February 2023
Construction	June 2023
Project Completion	June 2024

Resource: Bruce Husselbee

AGENDA ITEM 10. – February 22, 2022

Subject: SWIFT Research Center Full-Scale Managed Aquifer Recharge (MAR) Well Integration Additional Appropriation and Contract Change Order (>25%)

Recommended Actions:

a. Appropriate additional funding in the amount of $737,811.

b. Approve a change order to the contract with MEB General Contractors, Inc. in the amount of $597,400.

CIP Project: GN016220

Budget	$1,588,111
Previous Expenditures and Encumbrances	($1,419,022)
Available Balance	$169,089
Proposed Change Order No. 2 to MEB General Contractors, Inc.	($597,400)
Proposed Task Order to and Hazen and Sawyer, PC	($128,120)
Proposed Contingency	($181,380)
Project Shortage/Requested Additional Funding	($737,811)
Revised Total Project Authorized Funding	$2,325,922

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for MEB General Contractors, Inc	$1,040,000	
Total Value of Previous Change Orders	$0	0%
Requested Change Order	$597,400	
Total Value of All Change Orders	$597,400	57%
Revised Contract Value	$1,637,400	

Time (Additional Calendar Days)		178

Project Description: This project includes the integration of a full-scale MAR well (NP_RW_01) into the SWIFT Research Center. The site work, process piping, mechanical equipment, backflush pump, instrumentation, and electrical work required to convey SWIFT Water from the Research Center to the new well will be included.

Funding Description: The original CIP project estimate did not anticipate inclusion of design and construction of oxygen injection equipment. The project will require additional funding of $737,811 to issue a change order to the construction contract for MEB General Contractors, Inc. and issue a task order to Hazen and Sawyer, PC for engineering services. This funding request includes a contingency of approximately eight percent of the revised total project value to accommodate any additional unforeseen conditions.

Change Order Description and Analysis of Cost: This change order includes purchase of equipment and construction services to install an oxygen injection system at the SWIFT Research Center. A fee of $597,000 was negotiated which will provide the required construction services to complete this change order. The cost of the equipment and installation is unique and cannot be compared to other similar efforts from other projects. However, there is no mobilization fee associated with this change order since the contractor is currently onsite.

This change order provides for the purchase and installation of a pure oxygen injection system to boost the dissolved oxygen (DO) upstream of the SWIFT Research Center granular activated carbon contactors. The purpose of increasing the DO is to independently evaluate the impact of elevated total organic carbon (TOC) and low DO concentrations in SWIFT Water on arsenic release in the immediate vicinity of the recharge well. Currently, it is not possible to produce water with TOC approaching 4 mg/L at the same time as high SWIFT Water DO.

Schedule:	Construction	March 2022
	Project Completion	December 2022

Resource: Bruce Husselbee

AGENDA ITEM 11. – February 22, 2022

Subject: Jefferson Avenue Interceptor Force Main Replacement Phase III
Easement Acquisition

Recommended Action: Approve the purchase of 30,537 square foot permanent easement in accordance with the terms and conditions of the Agreement and forthcoming Deed of Easement between Kiln Creek Apartments Associates, L.L.C., (Landowner) and HRSD for $204,000 (Tax Map: 132-00-05-01).

CIP Project: JR011730

Project Description: This project will replace approximately 9,000 linear feet (LF) of 12-inch, 14-inch, and 16-inch HRSD force main (FM) (NF-020 and NF-021) from the intersection of Route 171 (Oyster Point Road) and Jefferson Avenue to the proposed Patrick Henry jumper. A preliminary hydraulic and capacity analysis revealed that pressures in the HRSD force main are hindering the City of Newport News' pump stations from entering the HRSD system during high flow conditions. Future development is planned for the service area, which will exacerbate the current problem. Construction of this project will also provide additional capacity and system flexibility when combined with other proposed improvements.

As part of the project, HRSD will require 15 temporary and permanent easements. The subject easement acquisition cost is above the $25,000 threshold as defined in HRSD's Policy Guidelines and requires Comission approval.

Agreement Description: The attached Agreement was reviewed by HRSD staff and legal counsel. The Deed of Easement is forthcoming and will be reviewed by HRSD staff and legal counsel as well. An Acquisition Plat and Facilities Orientation Map are also provided for clarification purposes.

Analysis of Cost: The cost for the easement is based upon an appraisal by Dove Valuations, Inc. as well as a negotiated settlement with the property owner, which includes estimated impact to Landowner and costs for lender releases on the property.

AGREEMENT

THIS AGREEMENT, made this 28th day of January 2022, by and between **KILN CREEK APARTMENT ASSOCIATES, L.L.C.**, a Virginia limited liability company, formerly known as **KILN CREEK APARTMENT ASSOCIATES, L.P.**, a Virginia limited partnership, whose mailing address is 560 Lynnhaven Parkway, Virginia Beach, Virginia 23452-7312 ("Landowner"), and **HAMPTON ROADS SANITATION DISTRICT** ("HRSD"), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455. Landowner and HRSD shall be referred to herein collectively as the "Parties."

WITNESSETH: That for and in consideration of one dollar and other valuable consideration as set forth in this Agreement, at Settlement (as hereinafter defined), Landowner agrees to convey to HRSD a Permanent Utility Easement over, across and through the following described property of the Landowner, by Deed of Easement, in the form attached hereto as Exhibit A, properly executed, acknowledged, and delivered.

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

> All that certain Permanent Utility Easement shown and designated as "PROP. 30' HRSD UTILITY EASEMENT" and the shaded area labeled as "DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT - 30,537 S.F. (TOTAL)", on the plat attached hereto as Exhibit B that was prepared by Paul W. Michael, Jr., Surveyor, Michael Surveying & Mapping, P.C., 41 Old Oyster Point Road, Suite B, Newport News, Virginia 23602 entitled, "EASEMENT PLAT FROM: KILN CREEK APARTMENT ASSOCIATES, LP TO: HAMPTON ROADS SANITATION DISTRICT PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III", and dated March 20, 2020; and being part of the same property designated as APT/CONDO-6, 13.10 Ac., as shown on that certain plat entitled "Subdivision of the Property of Kiln Creek Associates, a Virginia General Partnership Showing Apt/Condo-6, Located in The Villages of Kiln Creek, Newport News, Virginia", which said plat is recorded in the Clerk's Office of the Circuit Court of the City of Newport News, Virginia, in Deed Book 1195, Page 1460.

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

CONSIDERATION: TWO-HUNDRED AND FOUR THOUSAND DOLLARS AND 00/100 CENTS ($204,000.00) (the "Consideration") in full for the Easement described herein

before and for all damages, if any, other than with respect to the restoration work to be performed by HRSD as outlined in this Agreement.

It is understood and agreed that the consideration paid to the Landowner in connection herewith constitutes payment in full for the Easement hereby conveyed. Damages, if any, to the residue or other property of the Landowner resulting from HRSD's project (the "Project") and use made of the Easement conveyed for the installation of the facilities therein shall be covered by HRSD.

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

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

HRSD or its contractor will restore all of Landowner's land and improvements affected as a result of construction of the Project as closely as is reasonably possible to its pre-construction condition (or better) during the course and upon the completion of each stage of the Project, including, without limitation, replacing with acceptable landscaping. Any disturbance of Landowner's premises and improvements therein during the construction of the Project by HRSD or its contractor will be restored by HRSD as nearly as practicable to its pre-construction condition. This restoration includes, without limitation, paving (asphalt, concrete, sidewalks, curb and gutter, and the striping thereof), signage, fences, dumpster enclosures, backfilling of trenches, grass, reseeding, replacing or replanting landscaping, addressing ground sink issues, and removal of trash or debris. Landscaping will be replaced with immature trees, shrubs, and ground cover to replace the trees, shrubs, and ground cover, as applicable, affected by the Project. All portions of asphalt within Landowner's drive aisles and parking areas shall be replaced entirely (not partially) between the concrete curb line and the concrete swale located within Bellows Way so that no existing asphalt shall remain within the parking spaces along Bellows Way that are impacted by the Project. HRSD shall notify Landowner, in advance, prior to the commencement of any restoration work so that Landowner may be on-site to monitor, inspect, and approve the restoration work as it is completed. Notwithstanding anything to the contrary in this Agreement, HRSD shall maintain full and unimpeded access through the drive aisles of Landowner's property between Bellows Way and Brick Kiln Boulevard and appropriate personnel for HRSD or its contractor shall manage traffic coming to and from Brick Kiln Boulevard to and from Bellows Way during the completion of any portion of the Project affecting the entrance from/exit to Brick Kiln Boulevard.

HRSD or its contractor hereby agrees that it will perform all such measures in a manner causing as little inconvenience and disruption to the Landowner, and Landowner's invitees, licensees, tenants, and occupants as is reasonably possible, and in recognition thereof, once the Project is commenced, HRSD shall use commercially reasonable efforts to diligently pursue the completion of the Project so that the time that the Project impacts Landowner's property is minimized to the extent reasonably practicable.

RIGHT TO ENTER: The HRSD, or its agents, may exercise the right to enter upon so much of the parcel or Land needed for such purposes as may be necessary for the construction of this Project with at least 48-hour notice to the Landowner, unless in cases of emergency repair of HRSD facilities.

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

Landowner acknowledges that HRSD has relied upon these covenants, representations and warranties in purchasing the above Easement. To the extent any terms contained in this Agreement conflict with any terms contained in the Deed of Easement, the terms contained in this Agreement shall govern.

Settlement, at which the Landowner shall deliver the Deed of Easement and HRSD shall deliver the Consideration (the "Settlement"), shall be held within ninety (90) days after the full execution of this Agreement, or as soon thereafter as reasonably practicable, allowing a reasonable time to correct any title defects reported by the title examiner and preparation and signing of the necessary documents to enable the HRSD to take proper title. Settlement shall also not occur until Landowner has been notified by Landowner's lender that HRSD, at its sole expense, has obtained all necessary consents from Landowner's lender to permit Landowner to convey the Easement to HRSD.

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

Miscellaneous. Time is of the essence for this Agreement and all obligations contained herein. This Agreement and the Deed of Easement contain the entire agreement of the parties regarding the Easement and supersede any contrary or inconsistent agreements pertaining to the subject matter hereof. This Agreement may be modified only by a written instrument signed by the parties. Any party substantially prevailing in a legal action to enforce this Agreement shall be awarded reasonable attorneys' fees and court costs actually incurred. The invalidity or unenforceability of any provision of this Agreement does not affect the remainder of this Agreement. This Agreement is governed by the laws of the Commonwealth of Virginia.

Nothing contained in this Agreement shall be deemed or construed, either by the parties hereto or by any third party, to create the relationship of principal and agent or create any partnership, joint venture or other association between Landowner and HRSD.

This Agreement may be executed in one or more counterparts and each such counterpart shall be deemed to be an original; all counterparts so executed shall constitute one instrument and shall be binding on all of the parties to this Agreement notwithstanding that all of the parties are not signatories to the same counterpart.

[Remainder of page intentionally left blank. Counterpart signature pages follow.]

WITNESS the following signatures and seals:

LANDOWNER:
Kiln Creek Apartment Associates, L.L.C.
a Virginia limited liability company

By: BDC Manager, LLC, its Manager

By: T. M. Marshall, V.P. (SEAL)
Name: Terry M. Marshall, V.P.
Title: V.P. - BDC Manager, LLC - Manager

COMMONWEALTH OF VIRGINIA
City/County of Virginia Beach. to-wit:

The foregoing instrument was acknowledged before me this 28 day of January, 2022, by Terry Marshall as Vice President of BDC Manager, LLC, as Manager of Kiln Creek Apartment Associates, L.L.C., a Virginia limited liability company.

Dorothy Nobles
Notary Public

DOROTHY NOBLES
NOTARY PUBLIC
REGISTRATION # 211688
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES
APRIL 30, 2022

Notary Public Registration No. 211688
My commission expires: 4/30/22

HRSD:
HAMPTON ROADS SANITATION DISTRICT

By: _____ (SEAL)
Name: Jay A. Bernas, P.E.
Title: General Manager

COMMONWEALTH OF VIRGINIA
City/County of _____. to-wit:

The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by _____ as _____ of Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia.

_____
Notary Public

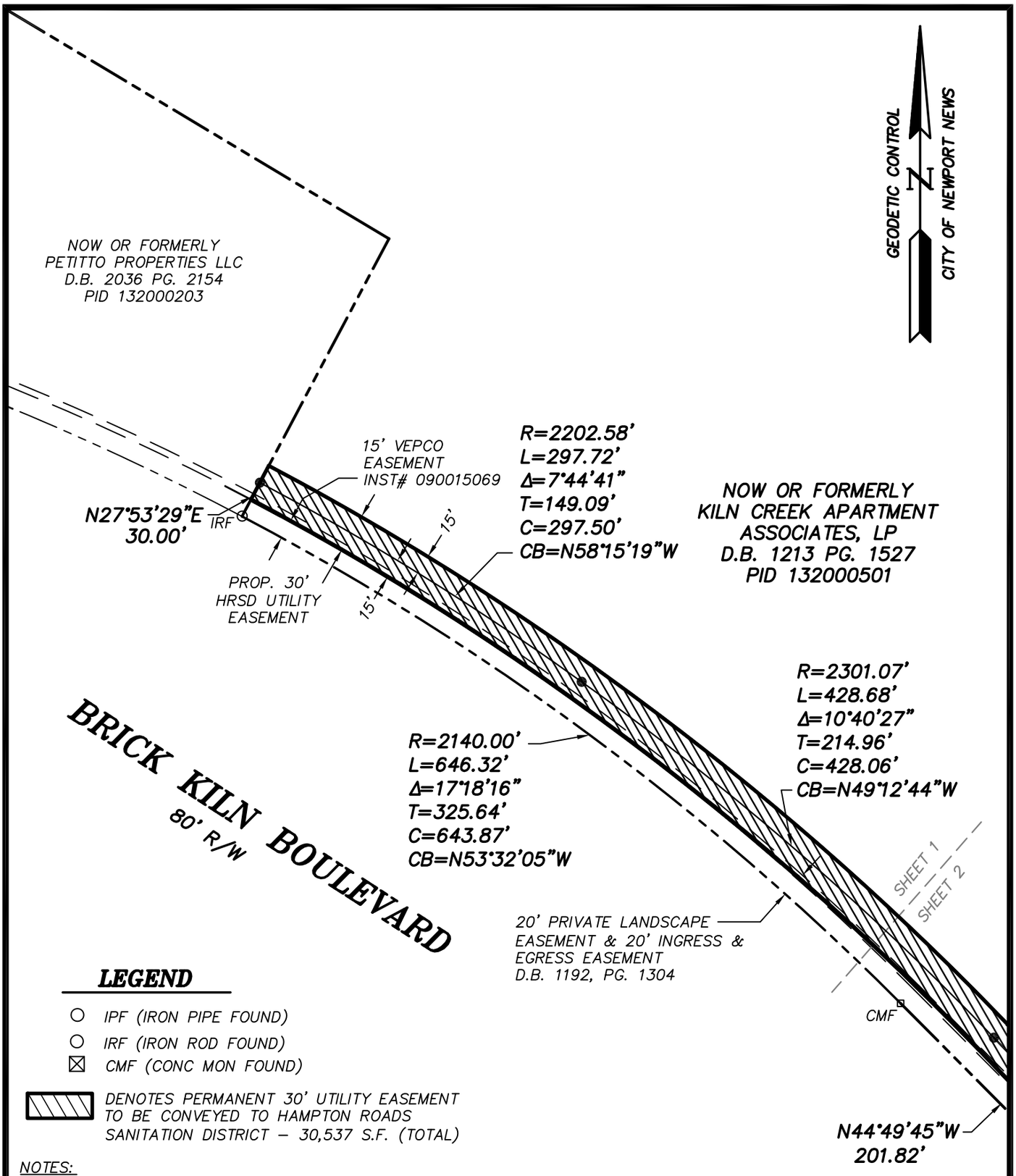
Notary Public Registration No._____
My commission expires: _____

EXHIBIT A

DEED OF EASEMENT FORM

EXHIBIT B

DEED OF EASEMENT PLAT



LEGEND

- ○ IPF (IRON PIPE FOUND)
- ○ IRF (IRON ROD FOUND)
- ☒ CMF (CONC MON FOUND)

DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT – 30,537 S.F. (TOTAL)

NOTES:

1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.

2. PROPERTY LINES SHOWN ARE BASED ON COMPILED RECORD INFORMATION, TAX MAP INFORMATION AND MADE TO FIT FIELD FOUND MONUMENTATION. THIS PLAT IS FOR EASEMENT PURPOSES ONLY AND DOES NOT CONSTITUTE A PHYSICAL OR BOUNDARY SURVEY.

3. A TITLE REPORT WAS NOT PROVIDED FOR THIS PROJECT, THEREFORE THERE MAYBE OTHER EASEMENTS THAT AFFECT THE PROPERTY THAT ARE NOT SHOWN.

COMMONWEALTH OF VIRGINIA
3/20/20
PAUL W. MICHAEL, JR.
Lic No. 002438
LAND SURVEYOR

References:
D.B. 1213,
PG. 1587

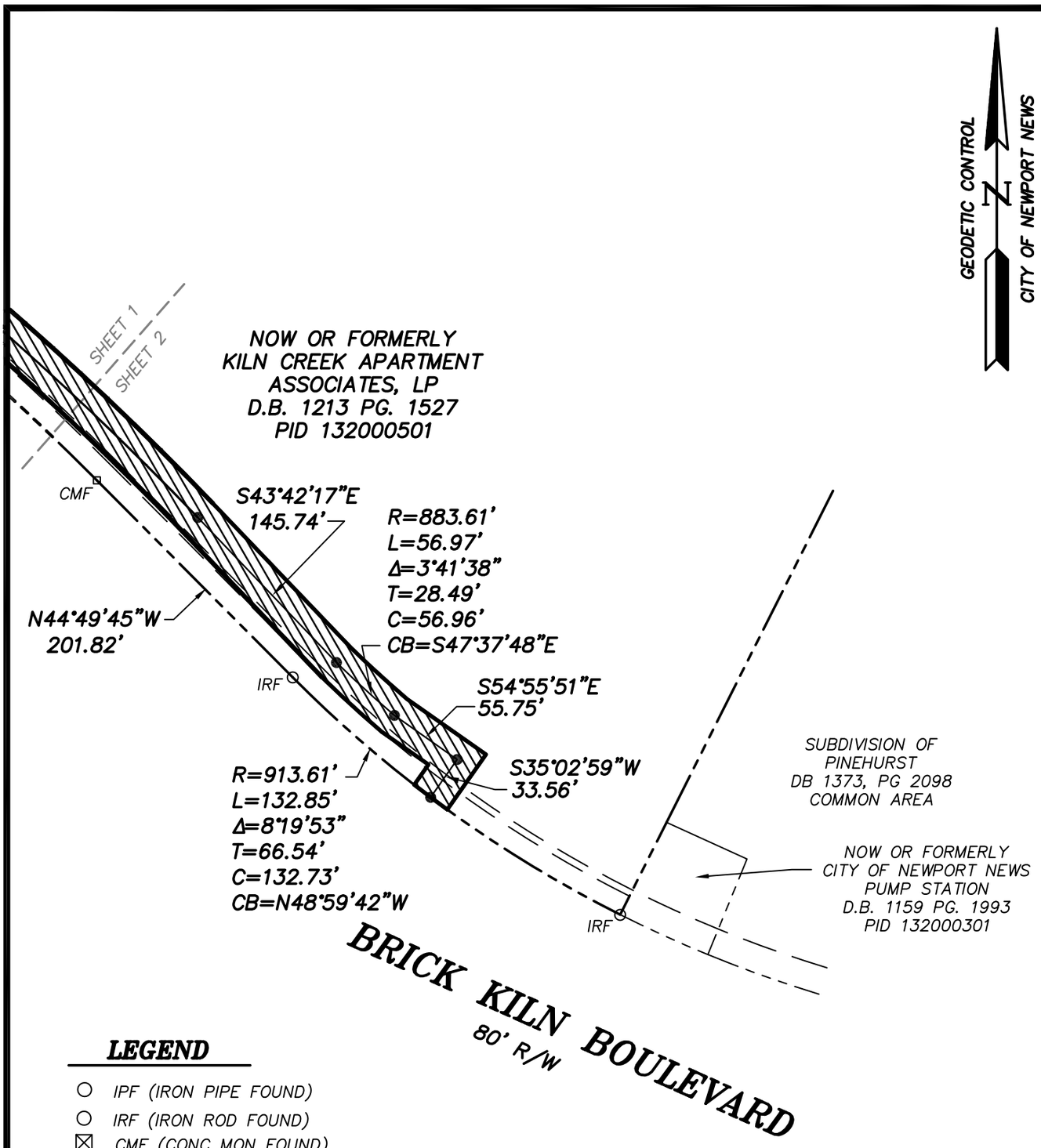
Notes:
PAGE 1 OF 2

EASEMENT PLAT
FROM: KILN CREEK APARTMENT ASSOCIATES, LP
TO: HAMPTON ROADS SANITATION DISTRICT

PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III

Date: 3/20/20	Scale: 1"=100'	Job No.: 19-012

MICHAEL SURVEYING & MAPPING, P.C.
41 OLD OYSTER POINT RD. - SUITE B
NEWPORT NEWS, VIRGINIA 23602
TEL 757.873.1762 FAX 757.873.1772



LEGEND

- ○ IPF (IRON PIPE FOUND)
- ○ IRF (IRON ROD FOUND)
- ⊠ CMF (CONC MON FOUND)

DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT – 30,537 S.F. (TOTAL)

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COMMONWEALTH OF VIRGINIA
3/20/20
PAUL W. MICHAEL, JR.
Lic No. 002438
LAND SURVEYOR

References:
D.B. 1213,
PG. 1587

Notes:
PAGE 2 OF 2

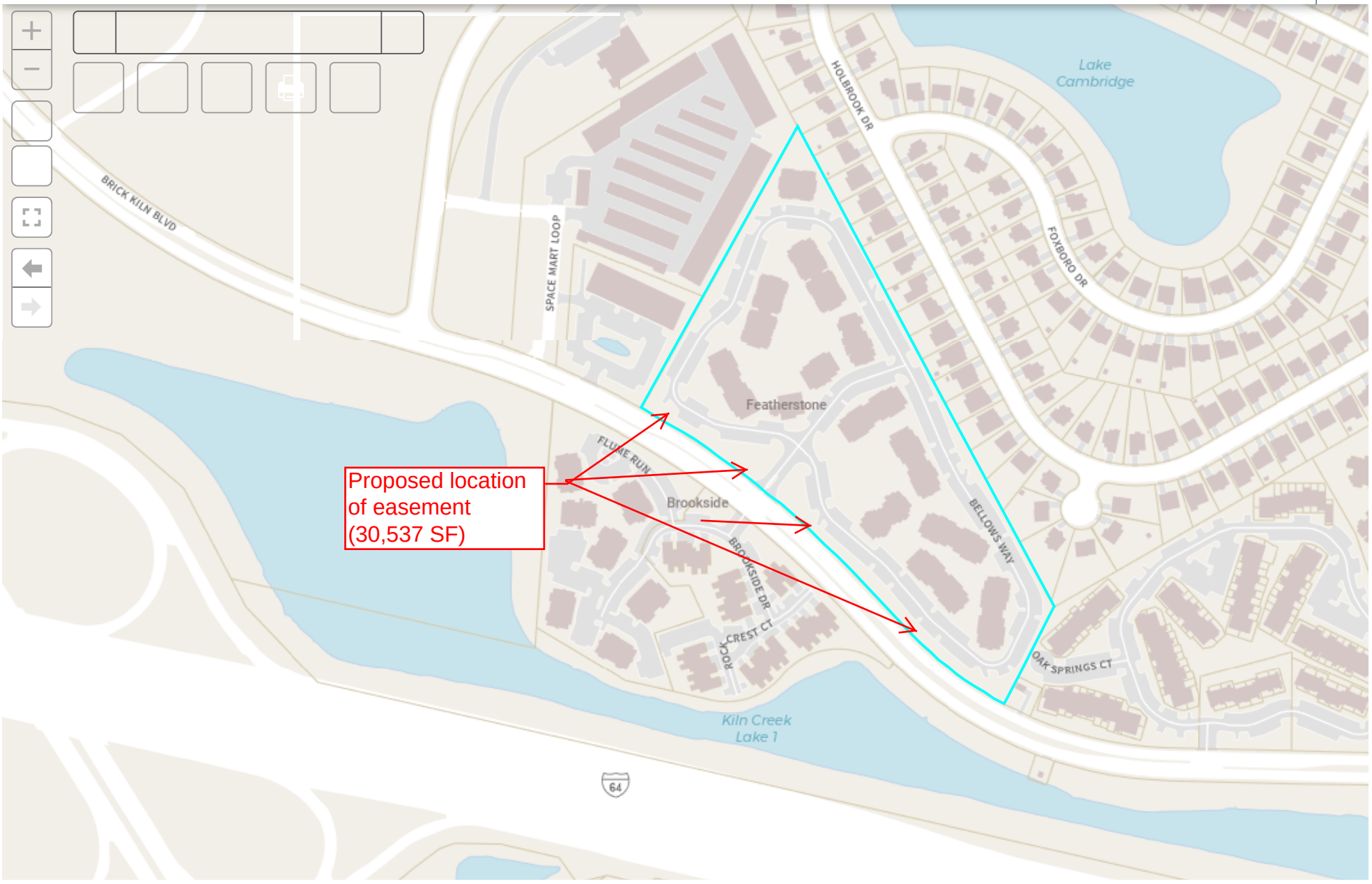
EASEMENT PLAT
FROM: KILN CREEK APARTMENT ASSOCIATES, LP
TO: HAMPTON ROADS SANITATION DISTRICT

PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III

Date: 3/20/20	Scale: 1"=100'	Job No.: 19-012

MICHAEL SURVEYING & MAPPING, P.C.
41 OLD OYSTER POINT RD. - SUITE B
NEWPORT NEWS, VIRGINIA 23602
TEL 757.873.1762 FAX 757.873.1772

Kiln Creek Apartments (702 Bellows Way), NN



Resource: Ted Henifin

AGENDA ITEM 12. – February 22, 2022

Subject: Southeastern Public Service Authority (SPSA) Leachate Evaporation System Cost Sharing Agreement

Recommended Actions:

a. Approve the terms and conditions of the Cost Sharing Agreement for Costs Associated with the Acquisition and Installation of a Leachate Evaporation System to Serve the SPSA Regional Landfill (AGREEMENT) and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

b. Approve a change in scope for existing CIP Project AT014100 deleting construction of the originally proposed transmission force main and adding acquisition and construction of a leachate evaporation system in accordance with the SPSA cost share agreement.

CIP Project: AT014100

Budget	$7,000,000
Previous Expenditures and Encumbrances	($1,600,000)
Available Balance	$5,400,000

Project Description: This project was originally scoped for HRSD's preferred alternative for addressing leachate from the regional landfill. SPSA has a permit that allows discharge of leachate to the Nansemond Treatment Plant. As HRSD has learned more about advanced water treatment to support SWIFT, leachate creates treatment challenges. Removing leachate from HRSD SWIFT facilities is the preferred solution.

The Commission approved a cost sharing agreement with SPSA in March 2018 to share costs with SPSA for construction of a transmission force main that would move the leachate into the Atlantic Treatment Plant Service area. During conceptual design of that force main, costs increased well beyond the initial estimates, exceeding $17 million. The project was re-evaluated by staff as a result of the cost increase and an updated life cycle financial analysis determined hauling the leachate to the Atlantic Treatment Plant Service area was the lowest lifecycle cost solution.

HRSD approached SPSA with this new information in 2021. SPSA, independently of HRSD's efforts, conducted an evaluation of leachate treatment options and determined new evaporation technologies were available and potentially more cost effective to dispose of leachate. This week SPSA received a quote for acquisition and construction of an evaporation system that does result in a new lower cost alternative. As a result, staff recommends approval of a new cost sharing agreement and payment of $4 million to SPSA for the evaporation system in exchange for permanent elimination of leachate from HRSD's system by the end of 2023.

Funding Description: Adequate funding remains in CIP AT014100 to support this change in scope.

COST SHARING AGREEMENT FOR COSTS ASSOCIATED WITH THE ACQUISITION AND INSTALLATION OF A LEACHATE EVAPORATION SYSTEM TO SERVE THE SPSA REGIONAL LANDFILL

THIS AGREEMENT ("Agreement"), between the SOUTHEASTERN PUBLIC SERVICE AUTHORITY OF VIRGINIA ("SPSA"), a public body politic and corporate of the Commonwealth of Virginia, and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), a political subdivision of the Commonwealth of Virginia, is entered into this ___ day _____, 2022.

WHEREAS, SPSA's regional landfill at 1 Bob Foeller Drive, Suffolk, Virginia ("Regional Landfill") supports its member communities, which include approximately two-thirds of HRSD's customers, with safe and effective disposal of solid waste; and

WHEREAS, the Regional Landfill generates leachate that requires treatment prior to being released into the environment; and

WHEREAS, HRSD was created for the welfare of the Commonwealth and its inhabitants and has been granted authority to compel industrial dischargers to the sewerage system (including SPSA) to treat such sewage in a manner as shall be specified by HRSD or prohibit discharge altogether; and

WHEREAS, SPSA currently delivers its leachate to HRSD's Nansemond Treatment Plant ("Nansemond Treatment Plant") through a combination of (1) an existing force main (the "Existing Force Main"); and (2) hauling leachate in tanker trailers; and

WHEREAS, HRSD and SPSA have determined that the leachate from the Regional Landfill cannot continue to be effectively and reliably treated at the Nansemond Treatment Plant as that plant is proposed to be operated in the future and that continued hauling of leachate is not in the best interests of their respective members and customers; and

WHEREAS, as an alternative to continued use of the Existing Force Main and hauling, SPSA and HRSD proposed the construction of a new force main to transport leachate to HRSD's Atlantic Treatment Plant and entered into a Cost Sharing Agreement for Cost Associated with Design, Construction and Related Land Acquisition for a Sanitary Sewer Force Main To Serve the SPSA Regional Landfill, dated March 28, 2018 ("2018 Cost Sharing Agreement"), for the construction of the new force main and associated facilities; and,

WHEREAS, pursuant to the 2018 Cost Sharing Agreement, HRSD and SPSA agreed that (1) HRSD would design and install certain "FACILITIES," defined in the 2018 Cost Sharing Agreement as "the extension of the sewerage system from the Regional Landfill (expressly including the portion of the system constructed on SPSA's property) to the Atlantic Treatment Plant's service area and shall include all pumping stations, valves, air vents, piping, manholes, and other appurtenances reasonably necessary for conveying leachate in the quantities contemplated;" and (2) SPSA would reimburse HRSD for a portion of the costs associated with the FACILITIES in accordance with limits contained in the 2018 Cost Sharing Agreement up to a maximum amount of $3 million; and

WHEREAS, after the execution of the 2018 Cost Sharing Agreement and subsequent preliminary design work, HRSD determined that the actual costs associated with constructing the FACILITIES will substantially exceed its previous estimates and upon further life-cycle cost analysis determined pumping and hauling leachate to be a lower cost alternative to constructing the force main; and

WHEREAS, as an alternative to pumping and hauling, SPSA has proposed that it acquire, install, and operate a heat-assisted evaporation system to treat leachate at the Regional Landfill, thereby greatly reducing and potentially eliminating the need to pump or pump and haul leachate to HRSD's treatment facilities; and

WHEREAS, SPSA and HRSD have determined that it is in the best interest of their respective members and customers to terminate the 2018 Cost Sharing Agreement and enter into this Agreement to share the cost of acquiring and installing the proposed evaporation system;

NOW, THEREFORE, for and in consideration of the mutual promises set forth herein and other good and valuable consideration, the receipt of sufficiency of which are hereby acknowledged, SPSA and HRSD agree as follows:

1. TERMINATION OF THE 2018 COST SHARING AGREEMENT

SPSA and HRSD agree that, upon full execution and delivery of this Agreement by the parties, the 2018 Cost Sharing Agreement shall be deemed terminated and of no force and effect, with all rights, duties and/or obligations between the parties being extinguished.

2. DESCRIPTION OF THE SYSTEM

The "System" is defined as a heat-assisted leachate evaporation system with the capacity to treat up to 60,000 gallons of leachate per day to be acquired and installed at the Regional Landfill.

3. ACQUISITION, INSTALLATION AND OPERATION OF THE SYSTEM

SPSA shall acquire, install, and operate the SYSTEM in accordance with SPSA standards and local laws and regulations, and in a financially responsible manner. SPSA shall operate and maintain the SYSTEMat its expense.

4. OWNERSHIP OF THE SYSTEM

The System shall at all times remain the exclusive property of SPSA.

5. COST SHARING

A. SPSA shall pay all external costs associated with the acquisition, installation, and inspection of the System, including all permitting fees, as described herein ("Costs"), it being understood that SPSA's costs or allocations for review, coordination and overhead shall not be included in Costs. Upon completion,

defined herein as when the System begins daily treatment of leachate, SPSA shall invoice HRSD for its share of the Costs.

B. Within 60 days after receipt of the invoice therefor from SPSA and in accordance with payment instructions included with the invoice, HRSD shall reimburse SPSA actual costs incurred by SPSA to acquire and install the SYSTEM up to a maximum of $4,000,000.

6. SCHEDULE

SPSA shall commence the acquisition and installation of the System within 60 days of full execution and delivery of this Agreement and proceed as expeditiously as possible, in accordance with Virginia procurement laws and SPSA policies, to complete the acquisition and installation. SPSA estimates, which estimate is non-binding, that the System will be completed 9 months after commencement. SPSA is solely responsible for all costs associated with disposal of leachate should HRSD cease accepting SPSA leachate at the Nansemond Treatment Plant prior to completion of the System. HRSD acknowledges that SPSA can meet those responsibilities only by hauling leachate under SPSA's HRSD permit.

7. USE OF EXISTING FORCE MAIN AND HAULING PRIOR TO AND AFTER INSTALLATION

The parties agree that, prior to the installation and operation of the System, SPSA shall continue to transport leachate through use of the Existing Force Main and by hauling leachate to HRSD's treatment centers. After installation of the System, SPSA shall endeavor to treat as much leachate as is reasonably and safely possible using the System and (a) shall only haul leachate to HRSD's designated treatment centers if necessary due to operational issues temporarily affecting the System with the consent of HRSD; . The existing force main shall be abandoned and capped off and will no longer be capable of conveying leachate to HRSD. Any hauling of leachate to HRSD's treatment centers whether before or after installation of the System shall be subject to HRSD's standard rates and charges and accomplished at SPSA's sole expense.

8. LIMITATIONS

Nothing in this Agreement guarantees acceptance of leachate from the Regional Landfill to the sewerage system or at HRSD treatment plants should the characteristics of the leachate materially change from leachate as discharged to the sewerage system in December 2017. All Industrial Wastewater Discharge Permit requirements as issued by HRSD to SPSA must be met at all times.

9. NOTICES

All notices given between parties shall be in writing and shall be considered properly sent by postage prepaid United States Mail or Country of Origin Mail to the persons identified below, with delivery deemed to have occurred on the immediately succeeding business day after sending:

To HRSD:

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

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

To SPSA (by Overnight or U.S. Postal Service)

Executive Director
Southeastern Public Service Authority
723 Woodlake Drive
Chesapeake, VA 23320

10. GENERAL

A. Applicable Law and Venue

This Agreement is made in and shall be governed by the laws of the Commonwealth of Virginia. In the event of litigation, venue shall be in the Circuit Court of the City of Virginia Beach, Virginia.

B. Severability

If any provisions of this Agreement are held to be unenforceable, this Agreement shall be construed without such provisions.

C. Waiver

The failure by a party to exercise any right hereunder shall not operate as a waiver of such party's right to exercise such right or any other right in the future.

D. Changes

This Agreement may only be amended by a written document executed by a duly authorized representative of each of the parties. This Agreement may not be assigned.

IN WITNESS WHEREOF, the Hampton Roads Sanitation District has caused this Agreement to be signed in its behalf by its General Manager in accordance with authorization granted at its regular meeting held on February 22, 2022, and the Southeastern Public Service Authority of Virginia has caused this Agreement to be signed on its behalf by its Executive Director in accordance with authorization granted at its regular meeting held on _____, 2022.

HRSD

By_____
_____,
General Manager

SPSA

By_____
_____,
Executive Director

Resource: Kyle Curtis

AGENDA ITEM 13. – February 22, 2022

Subject: COVID-19 Wastewater Surveillance Study Update

Recommended Action: No action is required.

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

Resource: Ted Henifin

AGENDA ITEM 14. – February 22, 2022

Subject: Unfinished Business

Resource: Ted Henifin

AGENDA ITEM 15. – February 22, 2022

Subject: New Business

Resource: Ted Henifin

AGENDA ITEM 16. – February 22, 2022

Subject: Commissioner Comments

Resource: Ted Henifin

AGENDA ITEM 17. – February 22, 2022

Subject: Public Comments Not Related to Agenda

Resource: Ted Henifin

AGENDA ITEM 18. – February 22, 2022

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) Report of Internal Audit Activities

(10) Internal Audit Report – Emergency Repairs

b. Strategic Planning Metrics Summary

c. Emergency Declaration – James River Treatment Plant Advanced Nutrient Reduction Improvements (ANRI)

February 14, 2022

Re: General Manager's Report

Dear Commissioners:

The Onancock Treatment Plant transfer from the Town of Onancock to HRSD was completed on January 21, 2022. This was a fairly complex closing as it required coordination with USDA (they held one of the two outstanding notes and had provided grant funds that required a release), VRA (holder of the other note), and almost every department in HRSD: Finance worked the debt resolution, Engineering coordinated the plat preparation and real estate documents, Operations had already been working closely with the plant personnel and coordinated employment of the existing staff with Talent Management, and Water Quality managed the regulatory transfer of the permit. A lot of work for 100,000 gallons of capacity!

Work continues with the Town of Onancock to take ownership of the collection system. The real estate issues for pipelines and pump stations are complicated with nearly half of the pipes and utility access holes not in the public right of way or dedicated utility easements, and six pump stations on land that requires either subdivision (Town owned parcels) or dedicated easements (private property). The goal is to resolve the pump station land issues over the coming months and take ownership of the system at that time. Pipeline easement acquisition will continue, likely for years. In the interim, the Town will continue to own the collection system and reimburse HRSD for the time required by the Onancock plant staff to perform maintenance and repairs on the collection system.

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

A. **Treatment Compliance and System Operations:** Surry County experienced an intense rain event that overtaxed that system, and there was one system overflow in the South Shore system. The Nassawadox Treatment Plant experienced one weekly and one monthly exceedance for ammonia. Ammonia has been a challenge at that facility and the cold weather makes treatment even more difficult. The Water Technology and Research Division of the Operations Department designed and installed an IFAS (integrated fixed film activated sludge) system in three days in response to the ammonia issues. The new system is performing well and may have eliminated this challenge for the remainder of this facility's life (closing in 2023/2024 timeframe).

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

1. Two new employee orientations
2. A meeting to discuss a potential request by VIMS to relocate an HRSD force main in Gloucester Point

3. Multiple meetings with directors and Jay Bernas for knowledge transfer
4. A meeting of the SWIFT Community Commitment Plan Steering Committee
5. Six employee grievances related to vaccinations

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

1. A meeting with a sub-group of the Potomac Aquifer Recharge Oversight Committee to discuss funding options for the Potomac Aquifer Recharge Monitoring Lab (PARML) going forward
2. Discussions with Delegate Knight related to funding of the PARML
3. Two meetings with the Elizabeth River Project
4. Multiple meetings related to the new property for the Boat Harbor pumping station and storage facility
5. The weekly VAMWA legislative update calls
6. An Aspen Institute water roundtable discussion focused on water affordability and assistance
7. An introductory meeting with the new Virginia Director of Environmental Quality, Mike Rolband
8. A meeting with the leadership of the US EPA Environmental Finance Advisory Board
9. The annual public meeting for the Consent Decree

D. **Consent Decree Update:** The long awaited Fifth Amendment (approving the final schedule and plan) was signed off by the Judge and entered on February 8, 2022, just two weeks shy of a full 12 years after the Consent Decree was originally entered by this same judge. We now have an approved plan and path forward. To satisfy the requirements of the Consent Decree, HRSD will need to:

- Complete two sets of high-priority projects (HPP) designed to decrease the volume of modeled sewer overflows during a modeled rainfall event that has a probability of occurring 20 times in 100 years (a five-year event). These projects are estimated to cost approximately $400 million and must be complete by 2040.
- Continue our pathogen source tracking work, working with the region's local governments to identify the sources of chronic bacteriological impairments and assist localities in eliminating those sources.
- Complete SWIFT by 2032. SWIFT was prioritized in the HRSD response to the Consent Decree as it provides much greater environmental benefits than the narrowly focused efforts on sewer overflows. Should HRSD reduce investment in SWIFT or miss the 2032 deadline, US EPA and Virginia DEQ can require HRSD to accelerate the construction schedule of the HPPs.
- HRSD will be subject to stipulated penalties for sewer overflows beyond our control throughout the life of the Consent Decree in accordance with the penalties set out in the Decree.

- HRSD will have satisfied the requirements of the Consent Decree when the HPPs are complete and modeling of the five-year storm results in a minimum reduction of modeled overflow volume of 69 percent from the baseline established in the Regional Wet Weather Management Plan.

This, my 184th monthly report, is my last. I have been so lucky to have this opportunity to serve you over the past 15 years. A job is only as good as the people you get to work with, and I have had the great fortune to work with the best here at HRSD.

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you in person in Virginia Beach on Tuesday, February 22, 2022**.

Respectfully submitted,

Ted Henifin, P.E.
General Manager

TO: General Manager

FROM: Director of Communications

SUBJECT: Monthly Report for January 2022

DATE: February 9, 2022

A. Publicity and Promotion

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

1. HRSD testing for COVID-19 omicron variant in wastewater
2. HRSD expansion on the Eastern Shore
3. EPA Administrator visits HRSD site in Smithfield
4. HRSD engineers design contraption to get trash out of water

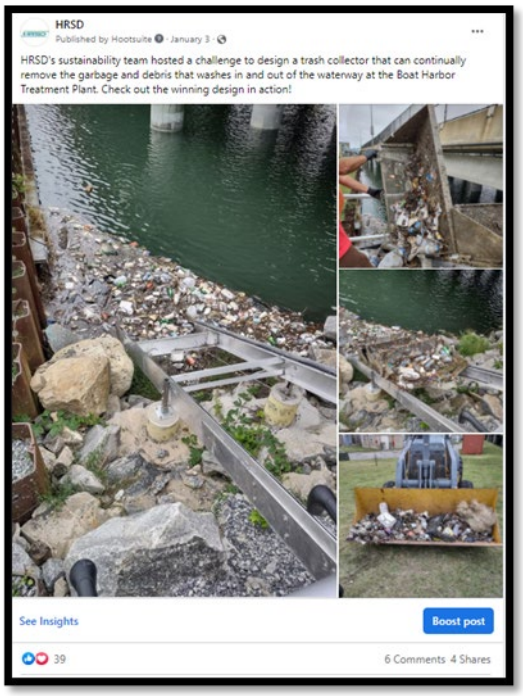
B. Social Media and Online Engagement

1. Metrics

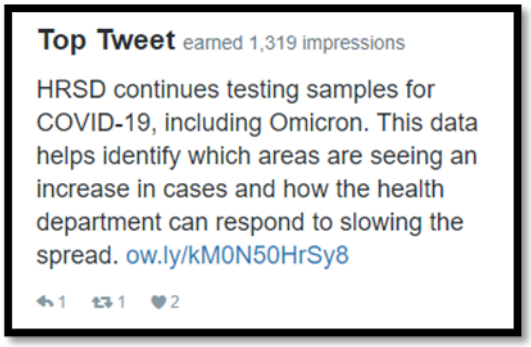
Social Media Metrics January 2022				
METRIC	**FACEBOOK**	**LINKEDIN**	**TWITTER**	**YOUTUBE**
Number of Posts *Number of published posts	15 -7	11 +0	18 -3	1:51 average view duration
Number of Followers/Likes *Total number of fans	1,635 +13	5,433 +51	602 +7	243 +2
Engagement *Sum of reactions comments and shares	243 -27	343 -39	26 -12	359 unique viewers +94
Traffic *Total clicks on links posted	70 +37	493 +79	166 +88	4.0% click through -.3%

2. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post



b. Top Tweet



c. Top YouTube Videos

(1) The Wastewater Treatment Process (229 views)

(2) What is Asset Management? HRSD Celebrates Infrastructure Week | United for Infrastructure (41 views)

(3) Virtual Tour of HRSD's Virginia Initiative Plant Nutrient Reduction Improvement Project (25 views)

(4) HRSD Atlantic Treatment Plant Cambi Tour (23 views)

(5) HRSD Employee Testimonials – Robert (17 views)

3. Impressions and Visits

   a. Facebook: 9,297 page impressions, 6,393 post impressions reaching 6,055 users and Facebook engagement of 243 (215 reactions, 15 shares and 13 comments)

   b. Twitter: 3,894 tweet impressions; 879 profile visits and 23 mentions

   c. HRSD.com/SWIFTVA.com: 972 page visits

   d. LinkedIn Impressions: 10,920 page impressions and 14,946 post impressions

   e. YouTube: 431 views

   f. Next Door unique impressions: 3,696 post views from five targeted neighborhood posting shared with 31,123 residents

   g. Blog Posts: (0)

   h. Construction Project Page Visits – 1,075 total visits (not including direct visits from home page, broken down as follows:

      (1) 684 visits to individual pages
      (2) 391 to the status page

C. <u>News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Web Postings</u>

1. News Releases: 5 (one news release)

2. Traffic Advisories: 0

3. Construction Notices and or notices to neighbors:1

4. Advertisements: 0

5. Project Notices: 3 (via door hangings and direct hand-outs reaching approximately 37 residents)

6. Project/Community Meetings: 0

7. New Project Web Pages: 0

8. New Project Videos: 0

D. Special Projects and Highlights

1. Director, together with Director of Finance and engineering staff hosted the EPA Administrator and several of his staff members, Congresswoman Elaine Luria and Congressman Bobby Scott for a tour of the Hardy Elementary School pump station worksite to in conjunction with the Administrator's visit to the region to see firsthand the infrastructure updates and improvements being made in the region.

2. Director and staff participated in this year's SWIFT Industry Outreach Day and hosted the Community Commitment Plan lounge to answer questions and provide information related to the plan for potential contractors, consultants and business partners.

E. Internal Communications

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

   a. DEI Council debrief meetings
   b. SWIFT Community Commitment Plan Steering Committee meetings and educational involvement and economic development needs assessment
   c. SWIFT 2022 Industry Outreach Event planning meetings
   d. Engineering Week planning meeting
   e. Meetings with IT to review reporting software options for SWIFT Community Commitment Plan participants
   f. Meeting to review PFAS content and layout options for HRSD.com subpage
   g. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings

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

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

F. Metrics

1. Educational and Outreach Activities (all virtual unless otherwise noted):1

   a. Self-guided SWIFT Virtual Tours – 40 views (analytics specify number of times the "Take a Tour" button was selected)
   b. 01/19/22 – Rain in a Glass Activity recorded for YouTube

2. Number of Community Partners: 0

3. Additional Activities Coordinated by Communications Department: 0

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	January 2022
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	6
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	41.75
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for January 2022

DATE: February 9, 2022

A. General

1. Capital Improvement Program (CIP) spending for the sixth month of Fiscal Year (FY) 2022 was slightly below the planned spending target. Discussions continue with the Finance Department to review this CIP spending shortfall, future projections and impacts to future short-term borrowing.

   CIP Spending ($ million):

	Current Period	FYTD
Actual	20.35	61.43
Plan	22.30	133.90

2. The update to the HRSD Capital Improvement Program (CIP) FY 2023 to FY 2032 is underway. Each existing CIP project is under review and will be updated if needed, and new CIP projects are under preliminary consideration. Last year we piloted a new project risk prioritization process. This year we will use the criteria to make important decisions on whether projects are accepted into the CIP and when they will be scheduled to be delivered. This new process involves a Project Review Team comprised of team members from the Engineering, Finance and Operations Departments. The team will evaluate each project for the following factors:

   - Project need
   - Scope development
   - Risk (likelihood and consequence) score
   - Preliminary cost and schedule estimates

B. Asset Management Division

1. Staff completed the procurement of a new inspection services contract for treatment plant outfall pipelines. This is primarily for subaqueous inspections which can only be done by a specialized and limited group of commercial divers. The contract will allow for the inspection of each treatment plant outfall and the completion of/ minor repairs as observed during the underwater inspections. A recommendation for award of a contract will be made at the February Commission Meeting.

2. Staff completed a plan for assessing and prioritizing the repair and/or replacement of treatment plant yard piping. This piping typically includes large-diameter buried assets that cannot be taken out of service. In the coming year, efforts will include the assessment of high priority pipe segments and a more detailed mapping using a Geographic Information System (GIS) of existing assets to facilitate future risk assessments.

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

1. Design of the Lucas Creek Pump Station Replacement in Newport News is nearing completion. The necessary property acquisition has been completed with the City and a final design review meeting was held in January. The bidding for construction will begin in February with a goal to award this contract in April. This project began in 2014 and has been very challenging with many changes as the project evolved. This replacement pump station will allow for hydraulic flexibility as flows can be sent in multiple directions from this location within the interceptor system.

2. Construction of the Elbow Road Pressure Reducing Station is nearing completion. Mechanical, electrical, and civil work within the pump station is almost complete and the exterior site-related work is also moving forward. The target date to activate this new pump station is March 31. This new pressure reducing station will improve the hydraulic capacity within the South Shore Interceptor System and facilitate the delivery of flow to the Atlantic Treatment Plant.

3. HRSD held its third annual SWIFT Industry Day on January 26. This was a well-attended virtual event with 250 participants and was facilitated by HRSD's SWIFT consultant, AECOM. The event included an Opening Session discussing the SWIFT Program and HRSD procurement procedures. Breakout areas were available to attendees in which specific SWIFT projects were reviewed. This was an interactive event and attendees could ask questions via a live virtual chat feature and further interaction was possible in each breakout area. This event was well received, and we continue to learn how to engage with attendees in a virtual format. We are considering whether to have a hybrid event next year that will allow for an in-person experience and a virtual feature for those that are not able to attend in person.

D. Planning & Analysis Division

1. Staff continues to support installation of the Interceptor System Smart Sewer Supervisory Control and Data Acquisition (SCADA) project. This is a combined effort involving many staff members from multiple departments including outside contracting support. Each HRSD pump station is being upgraded to the new EMERSON SCADA System to allow for more direct monitoring and control of the sewer system. This is a large and challenging effort and requires careful quality control to verify that the new SCADA System will function as needed. This work will continue through 2022.

2. The GIS Section began the annual support effort with the Water Quality Department for the Biosolids Land Application Program. Using HRSD's GIS, we can map the location of biosolids applications on the various farms and open areas throughout southern Virginia that receive our product generated at the Atlantic Treatment Plant. There are numerous regulatory requirements connected with this program and HRSD's GIS assistance assures compliance with these requirements.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1

   a. 01/26/2022 – Conducted the 2022 SWIFT Industry Day with a large group of interested consultants, contractors, suppliers, and vendors.

2. Number of Community Partners: 0

3. Number of Research Partners: 0

4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	January 2022
M-1.4a	Total Training Hours per Full Time Employee (45) - Current Month	Hours / #FTE	1.24
M-1.4b	Total Training Hours per Full Time Employee (45) - Cumulative Fiscal Year-to-Date	Hours / #FTE	16.44
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, PhD, P.E.

Bruce W. Husselbee, PhD, P.E.

TO: General Manager

FROM: Director of Finance

SUBJECT: Monthly Report for January 2022

DATE: February 10, 2022

A. General

1. Customer Care and Information Technology departments have completed testing and are ready to post approximately $9.5 Million of the $10.7 Million in Municipal Utility Relief Program (MURP) and American Rescue Plan Act (ARPA) relief funds to HRSD wastewater balances. Remaining ARPA relief funds will be available to assist locality-partner water/sewer balances. Relief payments are expected to be posted mid-February at the same time as locality-partner ARPA relief payments to minimize customer confusion on combined bills. Customers will be notified via bill message and website FAQs updated after ARPA funds have been posted. Once posting is complete, HRSD will resume normal collections activities, including late payment charges, warning tag fees, and service disconnections for unpaid past due charges.

2. Due to increased staffing and reduced field activities, Call Center response times improved during January to meet service levels. Continued training in February combined with new hires in the Call Center and Billing will provide Customer Care with the much-needed resources to resume business-as-usual in the coming months.

3. With water consumption trending down in January, wastewater service charges are running slightly below budget (see graph Wastewater Services Charges – Budget to Actual). Municipal Assistance is at 92 percent of projection, which is significantly higher than budget and the prior year due to COVID research projects. Facility Charges continue to be lower compared to last year, so labor and supply issues persist. Interest Income continues to be negative to reflect market value changes. As interest rates rise, income increases, but bond prices vary inversely which is causing a temporary unrealized market value decline. Personal Services, at 62 percent, is higher than budget and the prior year since both July and December included three payroll periods; expenses are expected to be within budget by year end. Fringe benefit expenses are generally on budget at 57 percent, consistent with the prior year.

4. Staff hosted EPA Administrator Michael S. Regan, Congresswoman Elaine Luria and Congressman Bobby Scott along with local officials at HRSD's Hardy Pump Station site in Smithfield, Virginia. This delegation toured the City of Chesapeake's lead water pipe replacement program and this rural site to promote infrastructure spending. Staff reiterated the importance of regionalization and requested that federal money be available to regional entities that are trying to help disadvantaged communities.

5. The Quarterly investment summary for HRSD's Operating Cash Strategies and Retiree Health Trust (OPEB) is attached. Note, the investment summary is as of December 31, 2021. Although the summary shows a 4.42 percent increase in market value for the quarter, early 2022 has been extremely volatile and the next quarter's returns are expected to potentially give back some of the gains from calendar year 2021.

B. Interim Financial Report

1. Operating Budget for the Period Ended January 31, 2022

	Amended Budget	Current YTD	Current YTD as % of Budget (58% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	$ 336,455,000	$ 206,392,455	61%	61%
Surcharge	1,600,000	966,100	60%	63%
Indirect Discharge	3,200,000	1,723,858	54%	60%
Fees	3,020,000	84,173	3%	-14%
Municipal Assistance	700,000	646,821	92%	51%
Miscellaneous	1,285,000	841,728	66%	51%
Total Operating Revenue	346,260,000	210,655,135	61%	60%
Non Operating Revenues				
Facility Charge	7,320,000	4,106,780	56%	71%
Interest Income	1,210,000	(621,433)	-51%	29%
Build America Bond Subsidy	2,095,000	1,064,842	51%	0%
Other	610,000	476,557	78%	57%
Total Non Operating Revenue	11,235,000	5,026,746	45%	49%
Total Revenues	357,495,000	215,681,881	60%	60%
Transfers from Reserves	17,346,624	10,118,864	58%	85%
Total Revenues and Transfers	$ 374,841,624	$ 225,800,745	60%	61%
Operating Expenses				
Personal Services	$ 62,776,055	$ 38,623,995	62%	60%
Fringe Benefits	25,173,707	14,329,559	57%	57%
Materials & Supplies	9,509,735	5,471,785	58%	51%
Transportation	1,555,282	781,550	50%	33%
Utilities	12,350,061	6,896,715	56%	51%
Chemical Purchases	9,249,441	5,153,856	56%	45%
Contractual Services	55,345,089	22,193,990	40%	41%
Major Repairs	16,056,857	5,017,267	31%	27%
Capital Assets	655,963	350,346	53%	27%
Miscellaneous Expense	3,137,304	1,660,427	53%	48%
Total Operating Expenses	195,809,494	100,479,490	51%	50%
Debt Service and Transfers				
Debt Service	64,308,209	39,628,041	62%	64%
Transfer to CIP	114,463,921	71,770,620	63%	64%
Transfer to Risk management	260,000	151,669	58%	58%
Total Debt Service and Transfers	179,032,130	111,550,330	62%	64%
Total Expenses and Transfers	$ 374,841,624	$ 212,029,820	57%	56%

2. Notes to Interim Financial Report

The Interim Financial Report summarizes the results of HRSD's operations on a basis of accounting that differs from generally accepted accounting principles. **Revenues are recorded on an accrual basis, whereby they are recognized when billed**, and expenses are generally recorded on a cash basis. No provision is made for non-cash items such as depreciation and bad debt expense.

This interim report does not reflect financial activity for capital projects contained in HRSD's Capital Improvement Program (CIP).

Transfers represent certain budgetary policy designations as follows:

a. Transfer to CIP: represents current period's cash and investments that are designated to partially fund HRSD's capital improvement program.

b. Transfers to Reserves: represents the current period's cash and investments that have been set aside to meet HRSD's cash and investments policy objectives.

3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended January 31, 2022

HRSD - RESERVE AND CAPITAL ACTIVITY January 31, 2022

	General Reserve					Capital		
	General	CARES - HRSD	CARES - JCSA	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
Beginning - July 1, 2021	**$ 182,380,923**	**$ 1,373,428**	**$ 168,124**	**$ -**	**$ 30,454,700**	**$ 4,019,543**	**$ 6,033,913**	**$ -**
Current Year Sources of Funds								
Current Receipts	210,299,599	51,790						
Line of Credit								18,422,172
VRA Draws							44,852,447	
CARES Transfer In	1,141,075			10,678,341				
Days Cash on Hand Transfer In								
Transfers In	-					151,669	71,770,620	
Sources of Funds	211,440,674	51,790	-	10,678,341	-	151,669	116,623,067	18,422,172
Total Funds Available	**$ 393,821,597**	**$ 1,425,218**	**$ 168,124**	**$ 10,678,341**	**$ 30,454,700**	**$ 4,171,212**	**$ 122,656,980**	**$ 18,422,172**
Current Year Uses of Funds								
Cash Disbursements	149,456,984						89,769,679	18,422,172
CARES Transfer Out		1,422,127	168,124					
Days Cash on Hand Transfer Out	-							
Transfers Out	71,922,289							
Uses of Funds	221,379,273	1,422,127	168,124	-	-	-	89,769,679	18,422,172
End of Period - January 31, 2022	**$ 172,442,324**	**$ 3,091**	**$ -**	**$ 10,678,341**	**$ 30,454,700**	**$ 4,171,212**	**$ 32,887,301**	**$ -**
Unrestricted Funds	**$ 209,500,837**							

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended January 31, 2022

HRSD - PROJECT ANALYSIS January 31, 2022

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2021	Expenditures Year to Date FY2022	Total Project Expenditures	Encumbrances	Available Funds
Administration	77,227,240	27,658,581	1,865,880	29,524,461	382,866	47,319,913
Army Base	163,448,800	123,537,916	682,628	124,220,544	1,212,167	38,016,089
Atlantic	143,194,633	82,877,498	4,131,228	87,008,726	2,828,196	53,357,711
Boat Harbor	292,607,594	52,827,281	5,911,305	58,738,586	6,691,866	227,177,142
Ches-Eliz	182,266,229	105,212,456	10,779,461	115,991,917	8,234,239	58,040,073
Eastern Shore	18,093,040	68,570	723,414	791,984	15,520,271	1,780,785
James River	315,605,591	49,601,157	10,879,818	60,480,975	206,430,079	48,694,537
Middle Peninsula	95,697,822	13,511,974	3,199,099	16,711,073	9,120,821	69,865,928
Nansemond	389,835,533	41,212,618	4,507,130	45,719,748	5,981,756	338,134,029
Surry	58,162,528	26,875,712	10,158,044	37,033,756	4,763,960	16,364,812
VIP	316,385,312	183,421,754	3,465,518	186,887,272	9,977,430	119,520,610
Williamsburg	39,061,010	27,900,712	1,184,499	29,085,211	6,102,525	3,873,274
York River	87,135,847	30,364,487	1,576,172	31,940,659	5,537,749	49,657,439
General	851,534,919	213,776,988	26,375,405	240,152,393	284,478,367	326,904,159
	$3,030,256,098.00	$ 978,847,704.00	$ 85,439,601.00	$ 1,064,287,305.00	$ 567,262,292.00	$ 1,398,706,501.00

5. Debt Management Overview

HRSD - Debt Outstanding ($000's) January 31, 2022

	Principal Dec 2021	Principal Payments	Principal Draws	Principal Jan 2022	Interest Payments
Fixed Rate					
Senior	185,172	-	-	185,172	(1,260)
Subordinate	592,525	(45)	7,209	599,689	(4)
Variable Rate					
Subordinate	50,000	-	-	50,000	(4)
Line of Credit	33,721	-	-	33,721	(12)
Total	$ 861,418	$ (45)	$ 7,209	$ 868,582	$ (1,280)

HRSD- Series 2016VR Bond Analysis January 28, 2022

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.33%	0.49%	0.16%
Minimum	0.01%	0.01%	0.00%
As of 1/28/22	0.06%	0.06%	0.00%

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

6. Financial Performance Metrics for the Period Ended January 31, 2022

HRSD - UNRESTRICTED CASH — January 31, 2022

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	**$ 209,500,837**		**391**
Risk Management Reserve	$ (4,171,212)	(8)	383
Capital (PAYGO only)	$ (32,887,301)	(62)	321
Adjusted Days Cash on Hand	**$ 172,442,324**		**321**

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 — January 31, 2022

Primary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value January 31, 2022	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	30,017,420	289,063,461	305,430,256	22,877	13,673,502	8.7%	N/A	0.55%
VIP Stable NAV Liquidity Pool	108,890,465	50,000,000	15,000,000	62,230	143,952,695	91.3%	AAAm	0.11%
Total Primary Source	**$ 138,907,885**	**$ 339,063,461**	**$ 320,430,256**	**$ 85,107**	**$ 157,626,197**	100.0%		

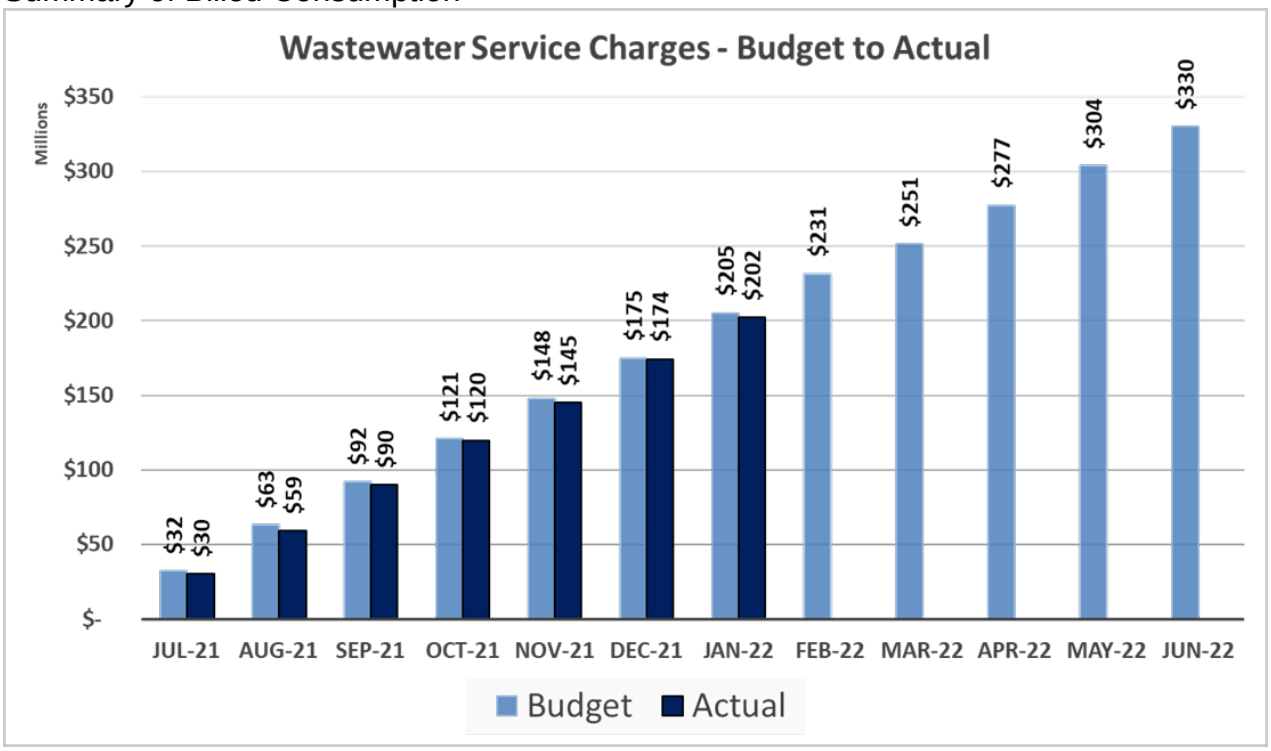
VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.01% in the month of January 2022.

Secondary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value January 31, 2022	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	65,054,203	-	7,625	174,480	64,319,807	63,566,398	753,409	1.11%
Total Secondary Source	**$ 65,054,203**	**$ -**	**$ 7,625**	**$ 174,480**	**$ 64,319,807**	**$ 63,566,398**	**$ 753,409**	

VIP 1-3 Year High Quality Bond Fund out performed the ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.01% in January 2022.

	Total	Fund Alloc
Total Primary Source	**$ 157,626,197**	**71.0%**
Total Secondary Source	**$ 64,319,807**	**29.0%**
TOTAL SOURCES	**$ 221,946,004**	**100.0%**

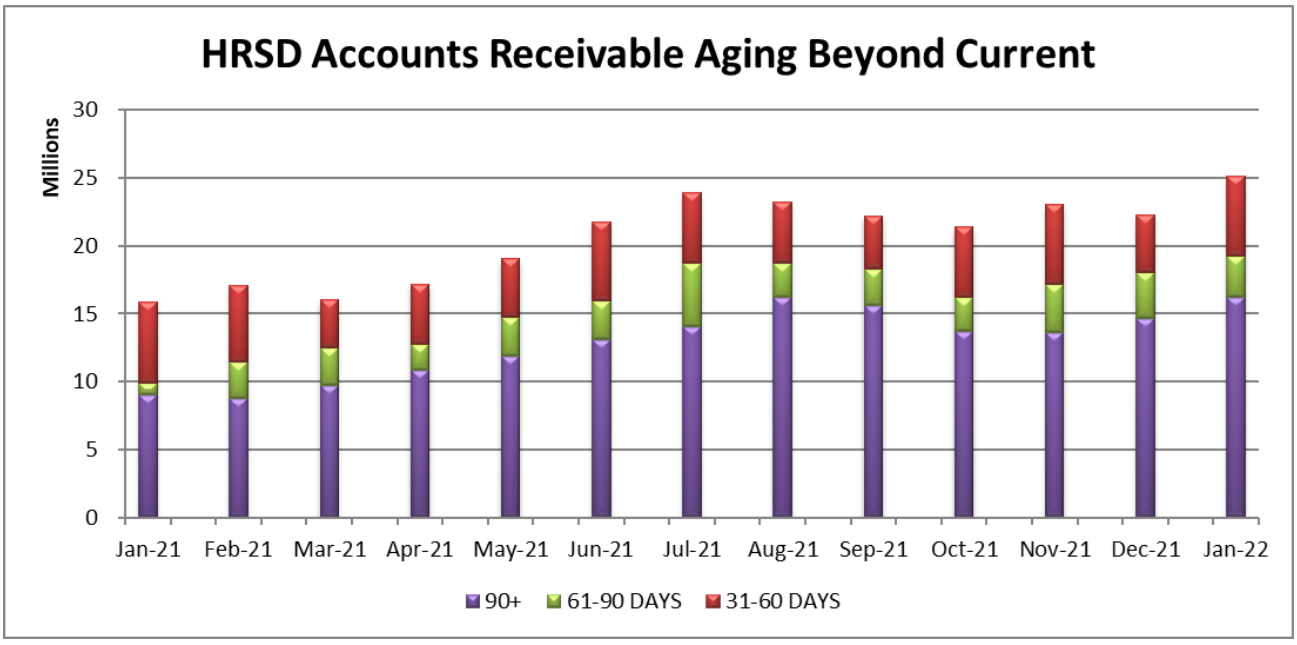
7. Summary of Billed Consumption

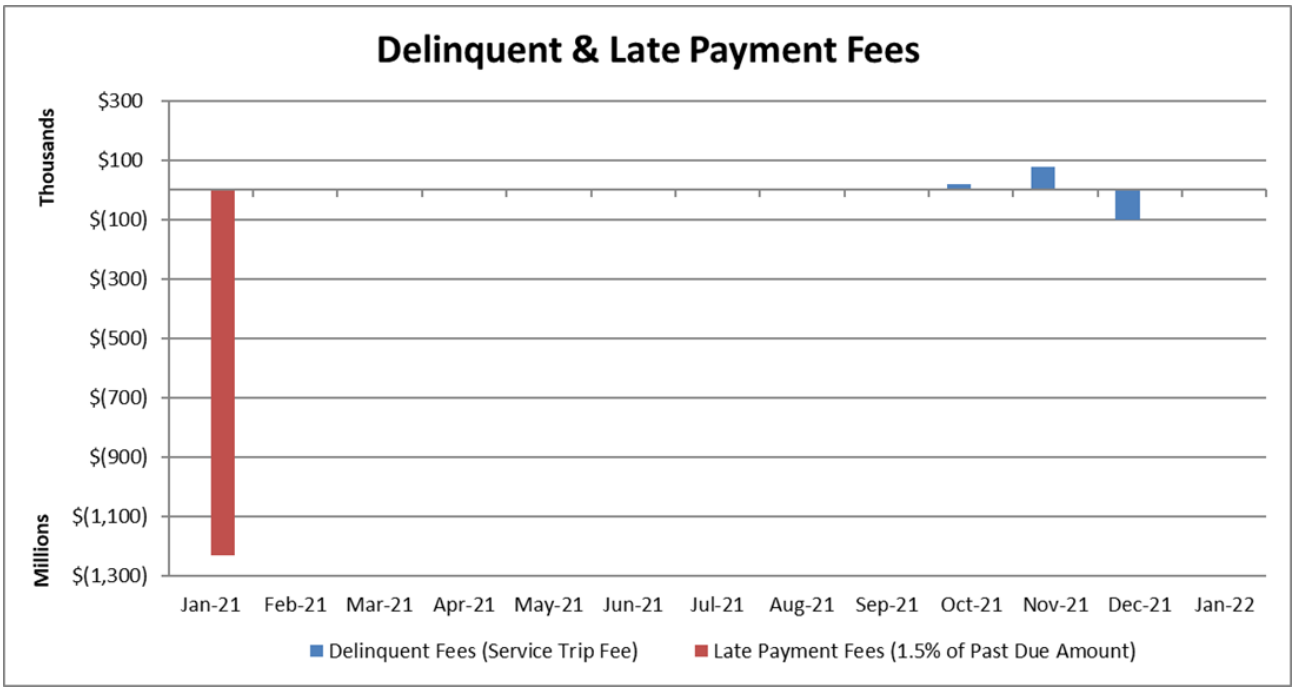


Summary of Billed Consumption (,000s ccf)							
			% Difference		% Difference		% Difference
Month	FY2022 Cumulative Budget Estimate	FY2022 Cumulative Actual	From Budget	Cumulative FY2021 Actual	From FY2021	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,976	-0.8%	4,751	4.7%	5,006	-0.6%
Aug	9,883	9,517	-3.7%	9,459	0.6%	9,866	-3.5%
Sept	14,413	14,346	-0.5%	14,335	0.1%	14,303	0.3%
Oct	18,892	19,048	0.8%	18,863	1.0%	18,931	0.6%
Nov	23,125	22,952	-0.7%	21,192	8.3%	22,474	2.1%
Dec	27,336	27,541	0.8%	27,614	-0.3%	27,458	0.3%
Jan	32,088	31,865	-0.7%	32,478	-1.9%	32,116	-0.8%
Feb	36,182	-	N/A	36,068	N/A	36,110	N/A
March	39,309	-	N/A	41,018	N/A	40,340	N/A
Apr	43,360	-	N/A	45,116	N/A	44,540	N/A
May	47,508	-	N/A	49,256	N/A	48,716	N/A
June	51,620	-	N/A	54,195	N/A	53,202	N/A

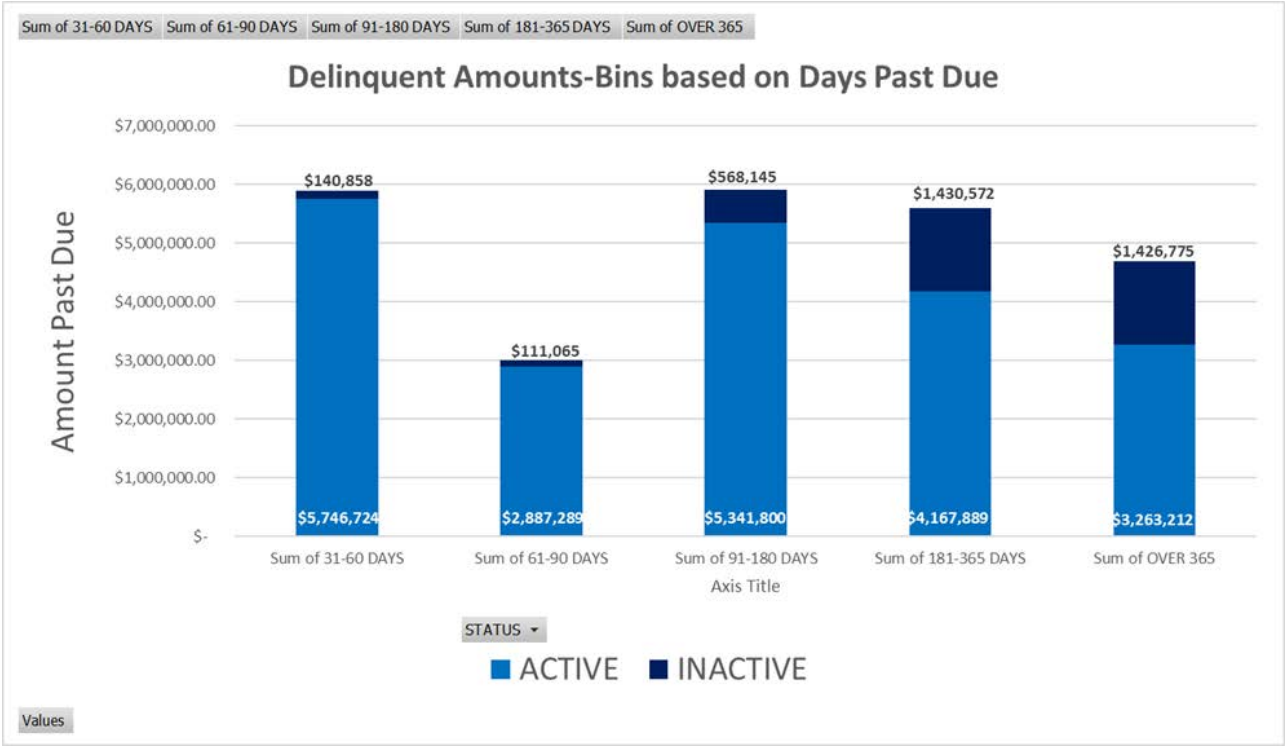
C. Customer Care Center

1. Accounts Receivable Overview

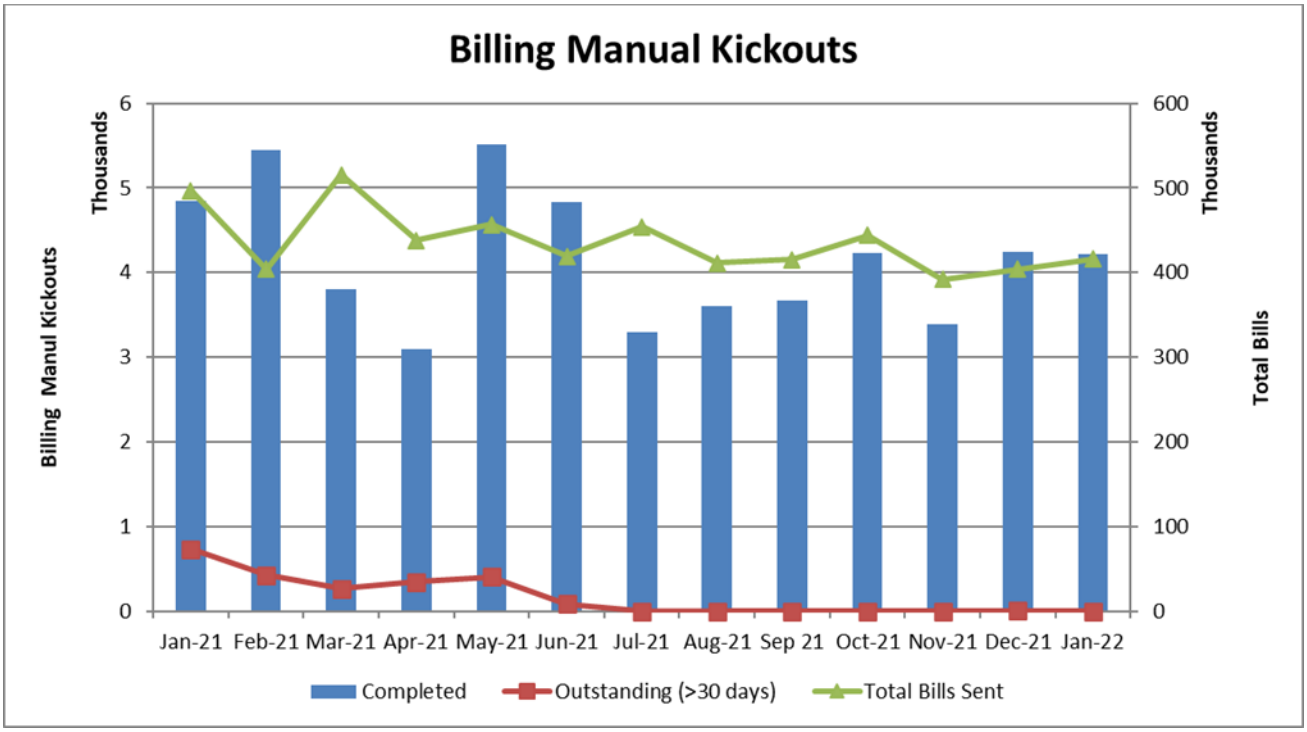


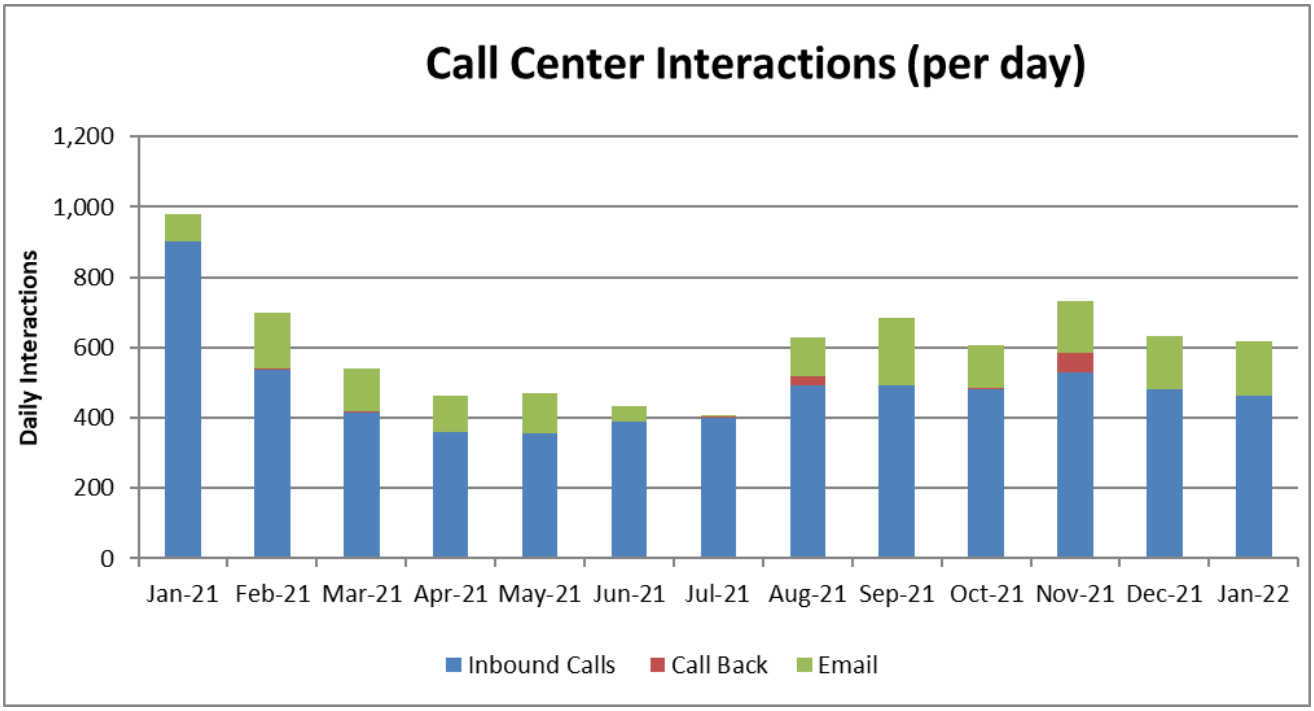


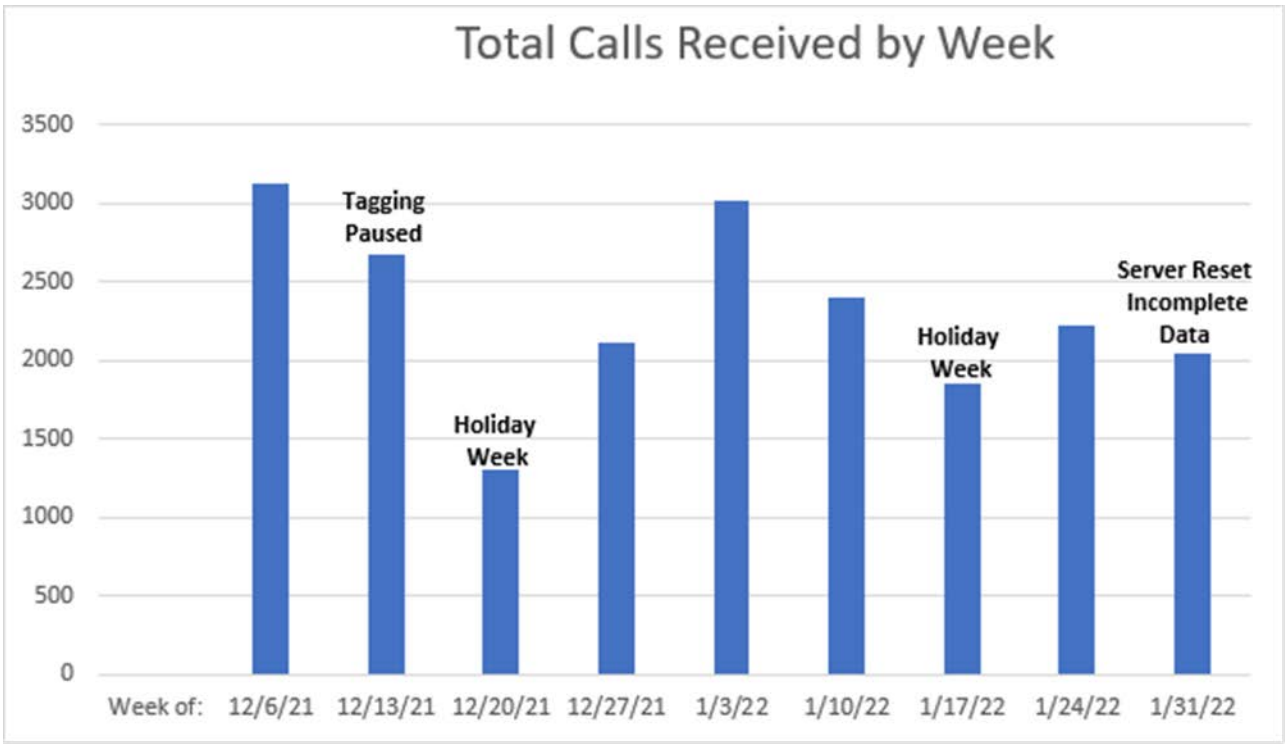
Apr 20-Jan 22 Field Activity was suspended late March 2020 in response to COVID-19.



2. Customer Care Center Statistics







Customer Interaction Statistics	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Calls Answered within 3 minutes	96%	65%	91%	93%	50%	67%	84%
Average Wait Time (seconds)	30	433	57	38	379	193	89
Calls Abandoned	4%	23%	6%	4%	22%	15%	9%

D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	0	
September	1	Caught by card holder
October	0	
November	1	
December	8	Caught by card holder
January	5	3 Caught by the bank, 2 caught by card holder
Total	**15**	

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2021
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	0.47
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	17.08
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	105%
	General Reserves	Percentage of Operating Budget less Depreciation	104%
	Liquidity	Days Cash on Hand	391 Days
	Accounts Receivable (HRSD)	Dollars	$44,943,904
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	36%

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

Attachments: HRSD's Operating Cash Strategies and Retiree Health Trust (OPEB)

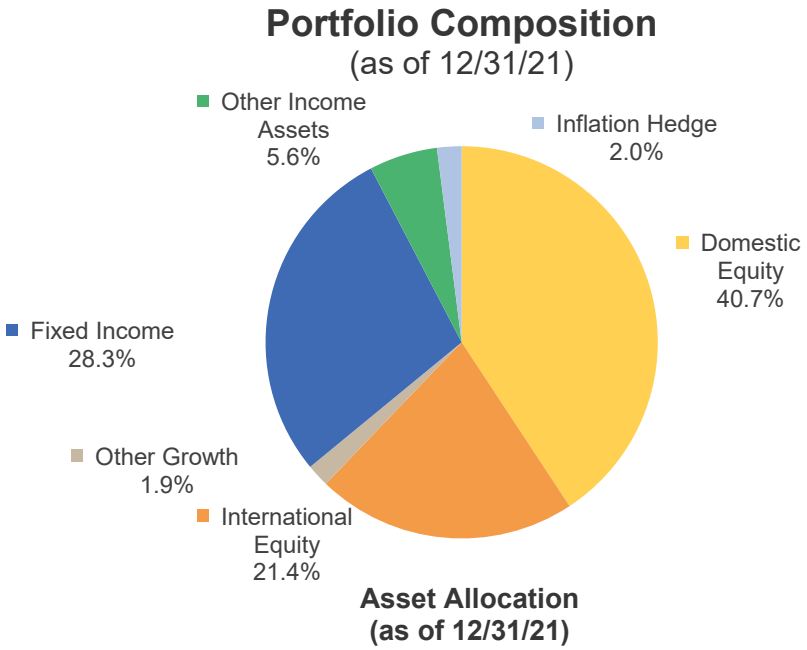
Total Portfolio Value		
	December 31, 2021	September 30, 2021
Investment Assets	**$ 74,609,535**	$ 71,256,032
Combined Assets	**$ 74,654,878**	$ 71,427,711

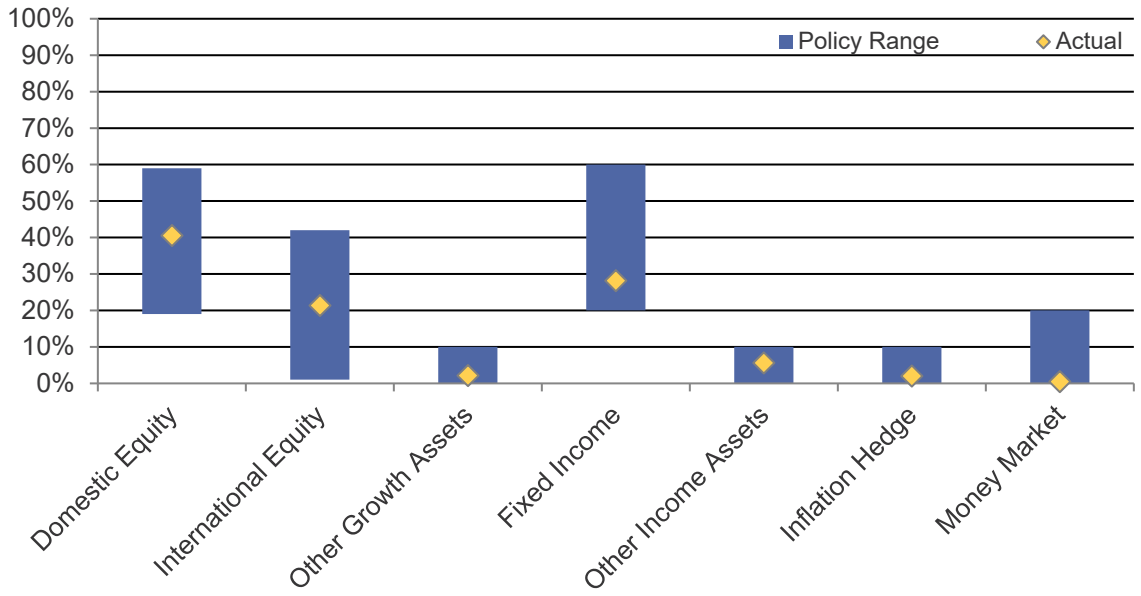
Portfolio Recap & Strategy

- The Retiree Health Plan Trust portfolio returned 4.47% (investment assets) for the quarter ended December 31, 2021, above the 4.00% return of the Blended Benchmark.* As of December 31, 2021, the weighted average credit quality of fixed income holdings for the Retiree Health Plan Trust portfolio was A. Over the quarter, the Multi-Asset Class Investment Committee ("the Committee") sought to add value to the portfolio by increasing allocations to Domestic Equity and International Equity, while decreasing allocations to Fixed Income and Other Income Assets. The Committee added the MFS Emerging Markets Debt R6 fund during the quarter.
- U.S. real GDP growth slowed sharply in Q3 to a modest 2.3%, well below the 6.5% growth rate in the first half of 2021. The lackluster growth reflected a slowdown in consumer spending as the Delta variant dampened confidence and behavior. Personal consumption grew at just 2% compared to the previous quarter's 12%. Nevertheless, economists predict a solid rebound for Q4, with the Atlanta Fed forecasting growth of over 6%. The unemployment rate dropped to 3.9% in December, compared to the record low pre-pandemic level of 3.5%. In the past 50 years, unemployment has only been lower during the 22 months prior to the pandemic and for one month in 2000. Although the U.S. economy added a record 6.4 million jobs in 2021, overall employment remains below its pre-pandemic figure largely due to people dropping out of the labor force This imbalance created a shortage of workers and kept pressure on wages as employers battle to attract and retain workers.
- Inflation was at the top of mind for everyone this quarter, including the Federal Reserve (Fed), as the cost of living kept climbing. Inflation rates hit a 39 year high in November at 6.8%, causing the Fed to change their tone and pivot to a more hawkish note, which they only reinforced at the end of the quarter. The Fed's December policy meeting ended with the policymakers signaling three rate increases in 2022, which could begin as early as March, as well as three in the following year. In addition to rate increases, the Fed discussed tightening policy by downsizing its $8 trillion balance sheet, possibly in the next several months.
- The S&P posted a return of 11.02% for the quarter, led by strong returns of 7.01% for October and 4.47% for December. For the quarter, earnings growth continued to lead returns higher, and based on calendar year earnings estimates margin growth should be a significant reason for earnings growth. Within S&P, 10 out of 11 sectors produced positive returns, with Real Estate (+17.50%), Information technology (+16.69%) and Materials (+15.20%) leading the way. Telecom (<-0.01%) was the worst-performing sector during the quarter. The MSCI ACWI ex-U.S. Index underperformed their U.S. counterparts, returning 1.82% for the quarter, with seven of the 11 sectors posting positive returns for the quarter.
- The U.S. bond market represented by the Bloomberg U.S. Aggregate Index (Aggregate) was flat in the fourth quarter with just a 0.01% gain, ending 2021 with a 1.54% loss. The fixed-rate mortgage market, as measured by the Bloomberg U.S. Mortgage-Backed Securities (MBS) Index, had another weak quarter, down 0.37%. Commercial mortgages sold off further as the Bloomberg U.S. Agency CMBS Index fell 0.60%. Corporate credit was positive as the Bloomberg U.S. Corporate Index gained 0.23% while high yield bonds, as represented by the Bloomberg U.S. Corporate High Yield (HY) Index, posted a return of 0.71%. Within HY, results were strongest in the single B-rated area. EM USD sovereign bonds, as represented by the JP Morgan EMBI Global Diversified Index, fell 44 bps despite a strong rally in December. By region, Africa and Europe had the biggest selloffs.
- Commodity futures, represented by the Bloomberg Commodity Total Return Index, fell 1.56% in the fourth quarter of 2021. REITs, as measured by the FTSE NAREIT Equity REITs Index, returned 16.31% in the fourth quarter of 2021, compared to a modest 0.98% return in the prior quarter.

Performance is unreconciled and does not include funds from Boyd Watterson. See page 3 for detailed information about the Blended Benchmark.

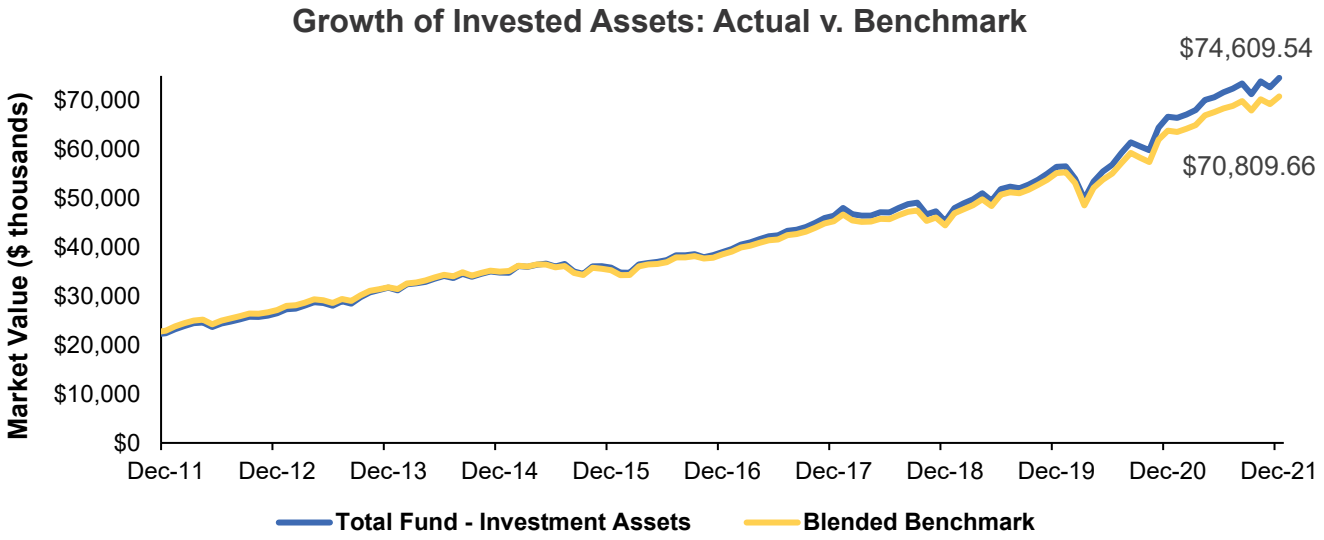
Security Type	December 31, 2021	% of Portfolio	September 30, 2021	% of Portfolio	Permitted by Policy
Domestic Equity	$ 30,262,173	40.5%	$ 27,571,083	38.6%	19% - 59%
International Equity	$ 15,935,379	21.3%	$ 14,700,525	20.6%	1% - 41%
Other Growth	$ 1,391,820	1.9%	$ 1,510,439	2.1%	0% - 10%
Fixed Income	$ 21,024,773	28.2%	$ 20,973,210	29.4%	20% - 60%
Other Income Assets	$ 4,186,759	5.6%	$ 4,812,938	6.7%	0% - 10%
Inflation Hedge	$ 1,500,782	2.0%	$ 1,504,839	2.1%	0% - 10%
Money Market Funds	$ 353,192	0.5%	$ 354,676	0.5%	0% - 20%
Totals	**$ 74,654,878**	**100.0%**	$ 71,427,711	100.0%	





Index	Market Values	%	1 Quarter	Year to Date	Trailing 1 Year	Trailing 3 Years	Trailing 5 Years	Apr-2013 To Sep-2021	Since Inception	Inception Date
Domestic Equity	**$ 27,571,083**	**38.69**								
Vanguard Total Stock Market ETF	$ 23,268,557	32.65	-0.06%	15.18%	32.09%	16.04%	16.87%	14.69%	45.82%	4/1/2020
Russell 3000 Index			*-0.10%*	*14.99%*	*31.88%*	*16.00%*	*16.85%*	*14.68%*	*45.63%*	*4/1/2020*
Jensen Quality Growth Fund	$ 2,932,721	4.12	2.17%	13.29%	26.24%	16.07%	17.36%	15.35%	18.18%	4/1/2019
S&P 500			*0.58%*	*15.92%*	*30.00%*	*15.99%*	*16.90%*	*14.86%*	*20.32%*	*4/1/2019*
iShares Core S&P Small-Cap ETF	$ 1,369,805	1.92	-1.79%	15.47%	43.59%	11.02%	12.90%	11.89%	-	10/1/2021
S&P SmallCap 600			*-1.76%*	*15.52%*	*43.68%*	*11.08%*	*12.97%*	*11.96%*	*-*	*10/1/2021*
International Equity	**$ 14,700,525**	**20.63**								
Vanguard Total International Stock ETF	$ 4,643,157	6.52	-2.97%	6.46%	24.48%	8.37%	9.05%	6.37%	34.82%	4/1/2020
MSCI AC World ex USA (Net)			*-2.99%*	*5.90%*	*23.92%*	*8.03%*	*8.94%*	*6.04%*	*32.71%*	*4/1/2020*
J. O. Hambro International Select	$ 3,407,029	4.78	-1.33%	2.71%	16.24%	11.49%	10.88%	10.51%	11.61%	1/1/2016
MSCI AC World ex USA (Net)			*-2.99%*	*5.90%*	*23.92%*	*8.03%*	*8.94%*	*6.04%*	*8.80%*	*1/1/2016*
Harding Loevner International Equity	$ 3,855,091	5.41	-2.38%	3.76%	20.50%	9.93%	10.78%	8.43%	24.04%	7/1/2020
MSCI AC World ex USA (Net)			*-2.99%*	*5.90%*	*23.92%*	*8.03%*	*8.94%*	*6.04%*	*24.62%*	*7/1/2020*
Artisan International Small-Mid	$ 787,790	1.11	-1.33%	4.53%	23.30%	15.92%	13.97%	-	4.53%	1/1/2021
MSCI AC World ex USA Smid Cap Index (Net)			*-0.94%*	*9.48%*	*28.94%*	*8.88%*	*9.40%*	*7.39%*	*9.48%*	*1/1/2021*
Virtus KAR International Small-Cap	$ 1,090,674	1.53	-1.19%	6.32%	30.82%	14.79%	15.82%	-	6.32%	1/1/2021
MSCI AC World ex USA Small Cap (Net)			*0.00%*	*12.23%*	*33.06%*	*10.33%*	*10.28%*	*8.13%*	*12.23%*	*1/1/2021*
Hartford Schroders Emerging Markets Equity	$ 916,783	1.29	-8.13%	-2.21%	18.69%	10.37%	10.76%	5.85%	5.45%	3/1/2018
MSCI EM (net)			*-8.09%*	*-1.25%*	*18.20%*	*8.58%*	*9.23%*	*4.77%*	*3.82%*	*3/1/2018*
Fixed Income	**$ 20,973,210**	**29.43**								
Baird Core Plus	$ 5,549,370	7.79	0.13%	-0.90%	0.53%	6.21%	3.83%	3.68%	4.01%	5/1/2014
Bloomberg Barclays U.S. Aggregate			*0.05%*	*-1.56%*	*-0.90%*	*5.35%*	*2.94%*	*2.93%*	*3.26%*	*5/1/2014*
DoubleLine Core Fixed Income	$ 2,568,545	3.60	0.14%	-0.11%	1.61%	4.65%	3.08%	3.25%	3.26%	9/1/2017
PGIM Total Return Bond Fund	$ 6,679,413	9.37	-0.01%	-1.45%	0.90%	6.27%	4.02%	3.98%	4.26%	9/1/2017
Bloomberg Barclays U.S. Aggregate			*0.05%*	*-1.56%*	*-0.90%*	*5.35%*	*2.94%*	*2.93%*	*3.47%*	*9/1/2017*
Voya Intermediate Bond	$ 3,615,327	5.07	0.18%	-0.90%	0.91%	6.09%	3.78%	-	4.08%	1/1/2020
Bloomberg Barclays U.S. Aggregate			*0.05%*	*-1.56%*	*-0.90%*	*5.35%*	*2.94%*	*2.93%*	*3.29%*	*1/1/2020*
iShares Intermediate-Term Corporate Bond ETF	$ 1,355,915	1.90	0.09%	-1.08%	1.33%	7.54%	4.60%	3.77%	4.81%	10/1/2019
ICE BofAML U.S. Corporate 5-10 Year Index			*-0.01%*	*-0.98%*	*1.51%*	*7.69%*	*4.64%*	*4.49%*	*5.01%*	*10/1/2019*
iShares JP Morgan USD Emerging Markets Bond ETF	$ 650,675	0.91	-0.95%	-2.15%	3.69%	5.45%	3.39%	3.92%	4.90%	7/1/2020
JPM EMBI Global Diversified			*-0.70%*	*-1.36%*	*4.36%*	*5.65%*	*3.89%*	*4.58%*	*5.38%*	*7/1/2020*
Mainstay Mackay Hight Yield Corp	$ 553,965	0.78	0.99%	5.04%	10.29%	6.45%	5.98%	-	2.16%	6/1/2021
ICE BofAML High Yield Master II			*0.94%*	*4.67%*	*11.46%*	*6.62%*	*6.35%*	*5.69%*	*2.32%*	*6/1/2021*
Other Growth	**$ 1,510,439**	**2.12**								
SPDR Blmbg Barclays Convert Secs ETF	$ 1,510,439	2.12	-1.46%	4.11%	26.66%	20.86%	17.40%	13.71%	-	10/1/2021
Bloomberg Liquid US Convertibles Index			*-1.33%*	*4.81%*	*27.78%*	*21.72%*	*18.13%*	*14.39%*	*-*	*10/1/2021*
Other Income	**$ 4,812,938**	**6.75**								
Boyd Watterson GSA Fund	$ 2,663,213	3.74	1.18%	6.64%	8.69%	-	-	-	7.39%	7/1/2019
NCREIF Property Income			*1.05%*	*3.18%*	*4.22%*	*4.35%*	*4.47%*	*4.76%*	*4.29%*	*7/1/2019*
iShares Preferred&Income Securities ETF	$ 2,149,725		0.03%	4.33%	12.20%	7.04%	5.25%	5.36%	-0.74%	9/1/2021
			-0.28%	*0.13%*	*5.08%*	*6.66%*	*5.14%*	*5.82%*	*-0.37%*	*9/1/2021*
Inflation Hedge	**$ 1,504,839**	**2.11**								
PIMCO Commodity Real Return Strategy	$ 1,504,839	2.11	7.26%	33.84%	50.62%	*10.07%*	*6.54%*	*-2.57%*	8.95%	6/1/2021
Bloomberg Commodity Index Total Return			*6.59%*	*29.13%*	*42.29%*	*6.86%*	*4.54%*	*-2.92%*	*8.56%*	*6/1/2021*
Cash Equivalent										
First American Government Obligation	$ 182,997	0.26	0.01%	0.02%	0.03%	0.99%	1.00%	0.61%	1.23%	1/1/2004
Retiree Health Plan Trust	**$ 71,256,032**	**100.00**	**-0.55%**	**6.75%**	**17.44%**	**11.08%**	**10.51%**	**8.81%**	**9.09%**	**9/1/2009**
Blended Benchmark*			***-0.62%***	***6.32%***	***16.43%***	***10.47%***	***9.63%***	***7.90%***	***8.65%***	***9/1/2009***

Data as of September 30, 2021.
"-" refers to performance that is not applicable.



**Active Strategy implemented April 1, 2013. Since inception to June 30, 2017 , the Blended Benchmark was 33% Russell 3000 / 21% MSCI ACWI ex USA net) / 3% FTSE NAREIT Equity REITs / 3% Bloomberg Commodity TR / 40% Bloomberg Barclays Aggregate. From July 1, 2017 to present, the Blended Benchmark was 39% Russell 3000 / 21% MSCI ACWI ex USA net) / 40% Bloomberg Barclays Aggregate.*

Hampton Roads Sanitation District
Quarterly Performance Report
For the Quarter Ending December 31, 2021

Total Portfolio Summary

Operating Strategies	December 31, 2021	September 30, 2021
Primary Source	$ 166,784,053	$ 154,907,231
Secondary Source	64,745,261	65,085,629
	$ 231,529,315	**$ 219,992,860**

Primary Source Summary

The Primary Source Portfolio consists of BAML Corp Disbursement Account $22.84m and VaCo/VML VIP Stable NAV Liquidity Pool $143.94m. BAML Corp Disbursement Account returned 0.55% for the quarter ending December 31, 2021. VIP LIQ Pool Fund 30 Day Avg Net Yield was 0.09% as of December 31, 2021. VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.01% in the month of December 2021. VaCo/VML VIP Stable NAV Liquidity Pool's weighted average credit rating was A-1 for the quarter.

Secondary Source Summary

The Secondary Source Portfolio consists of VaCo/VML VIP 1-3 Year High Quality Bond Fund. The VIP 1-3 Yield to Maturity at Market was 0.69% as of December 31, 2021, which performed at the same level as the benchmark, ICE BofA ML 1-3 Yr AAA-AA Corp/Gov Index. The weighted average credit rating for VaCo/VML VIP 1-3 Year High Quality Bond Fund's portfolio was AA for the quarter.

Retirement Health Plan Trust	December 31, 2021	September 30, 2021
Investment Assets	74,609,535	71,256,032
Liquidity Assets	45,343	171,679
Combined Assets	**$ 74,654,878**	**$ 71,427,711**

Retiree Health Plan Trust Summary

The Retiree Health Plan Trust portfolio returned 4.47% (investment assets) for the quarter ended December 31, 2021, above the 4.00% return of the Blended Benchmark.* As of December 31, 2021, the weighted average credit quality of fixed income holdings for the Retiree Health Plan Trust portfolio was A. Over the quarter, the Multi-Asset Class Investment Committee ("the Committee") sought to add value to the portfolio by increasing allocations to Domestic Equity and International Equity, while decreasing allocations to Fixed Income and Other Income Assets. The Committee added the MFS Emerging Markets Debt R6 fund during the quarter.

*Performance is unreconciled and does not include funds from Boyd Watterson.

TO: General Manager

FROM: Director of Information Technology

SUBJECT: Information Technology Department Report for January 2022

DATE: February 10, 2022

A. General

1. Staff worked on installation of all networking equipment for the Onancock Treatment Plant. Verizon is working to identify performance anomalies which are preventing the data circuits from functioning as intended. Staff are working with Verizon to further investigate the issue, and remedy the situation.

2. Staff continue compiling data and vendor quotes for the 2023 Fiscal Year budget year.

3. The IT Help Desk processed 449 work orders in January, ensuring availability of computing resources to those working locally and remotely.

4. IT is working with Customer Care to develop a comprehensive scope of work and specification for a cloud-based call center solution, as well an updated Interactive Voice Response/Call Attendant for the externally facing phone system.

5. The Enterprise Resource Planning (ERP) upgrade project is on schedule. Testing and validations are ongoing. The WebCenter upgrade began in early December.

6. Staff continue to work on implementing and integrating new functionality for Microsoft Office 365, Teams, and OneDrive.

7. Programming staff are working with Customer Care and Systems Engineers on reporting and automating and formalizing processes required to efficiently distribute and track funds from the American Rescue Plan Act (ARPA).

8. Staff worked on patching systems, applications, and databases while implementing enhanced security measures to optimize systems security and minimize cyber risk.

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	January 2022
M-1.4a	Training During Work Hours Per Full-Time Employee (51) – Current Month	Total Training Hours / # FTE	0.15
M-1.4b	Total Training During Work Hours Per Full-Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	7.06
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 January 2021

DATE: February 14, 2022

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

a. On January 3, the inspection port on the #5 volute at the Bridge Street Pump Station (PS) failed, damaging adjacent equipment, and flooding the drywell to a level above the pump volutes and suction valves. Staff de-energized the pump, closed the discharge valve, and climbed across the pump and down the suction leg to isolate the suction valve. These actions were taken while the station valves were submerged in several feet of water. Because of staff's swift actions, the pumps were not completely submerged, and very likely thwarted a major problem at Bridge Street PS.

b. The newly commissioned Smithfield Interim Pressure Reducing Station (PRS) ran twice during the month of January and performed very well. Suction side pressures during these wet weather events were reduced from 18 psi to 8 psi and flows increased by over 1,000 gallons per minute (gpm) while in operation. The Town of Smithfield reached out to staff to express their gratitude for building the station. The impact of this new facility reduces Smithfield's wet weather operational challenges.

2. South Shore (SS) Interceptor Systems

a. On January 5, a coupling on a 12-inch force main failed near the intersection of Robin Hood Road and Chesapeake Boulevard in Norfolk. Because of relatively low flows, only 150 gallons leaked into a nearby storm culvert that drains to Wayne's Creek, a tributary of the Lafayette River. Staff replaced a section of pipe and the failed coupling and restored the impacted roadway.

b. On January 30, a force main failed near the Jamestown Crescent PS in Norfolk near the intersection of Jamestown Crescent and Magnolia Avenue. Staff isolated the force main and temporarily turned off the station. Staff found a circumferential crack on the six-inch cast iron force main. Staff installed a full circle clamp and restored the impacted area. The failure leaked approximately 300 gallons into a nearby storm culvert that drains to Lafayette River.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

a. Staff installed a new ammonia sulfate line to the secondary clarifiers.

b. Staff completed excavating and establishing a new outdoor storage area for the plant.

2. Atlantic Treatment Plant (ATP)

a. On January 2, staff received an odor complaint. Staff investigated and determined that the odor was not coming from the plant. On January 13, staff received another odor complaint stating that there was a foul smell in the Redmill area of Virginia Beach. Staff investigated the odor complaint and determined that the most likely source was the annular space around digesters #1 and 3. The odor around the annular space has subsided; staff will continue to monitor the digesters for potential odors.

b. Staff discovered a leak at a joint on the primary effluent channel wall. The leak was going into a trough which runs to a sump, so all was recovered. A contractor injected fill into the joint to stop the leak.

c. The influent #3 screen was damaged during a high flow event on January 15 and 16 when multiple screenings and rocks overwhelmed the system. Staff replaced 12 damaged screening panels and repaired the damage to the access hatches.

d. Staff began preparations for the annual Thermal Hydrolysis Process (THP) inspection and maintenance turnaround effort tentatively planned for the week of February 14. During this week, the THP will be shut down and the steam boiler and associated components will be inspected and repaired as necessary. All pressure vessels for the THP will be flushed and inspected and all pressure relief valves will be replaced. While the system is shut down, solids will be hauled off the plant site to the other treatment plants with incinerators, or to an offsite composting facility. This hauling effort can produce off-site odors. Staff is working with the Communications Department to develop a proactive plan to notify the adjacent neighborhoods of the maintenance effort. During this time, the 10,000 gallons of Fats, Oil and Grease (FOG) received daily at the plant will be diverted to the Williamsburg Treatment Plant (WBTP) for processing.

3. Boat Harbor Treatment Plant (BHTP)

a. Contractors repaired the foundation of the emergency generator building after the surrounding area was found to be washing away during rain or tide events.

b. Staff removed fouled media from the #1 odor scrubber. Work will continue into February to clean scale, build up and debris from the scrubber sump, replace supports and refill both towers with new media.

c. Staff replaced two external drain valves on the aeration tanks, one on tank #6 and one on tank #1, leaving only one external valve remaining for replacement.

4. James River Treatment Plant (JRTP)

a. Staff made several repairs on non-potable water system pipes that broke due to cold weather.
b. Staff completed the fabrication and testing of rigging to remove a worn-out seal

on the secondary clarifier #5. The goal is to perform all maintenance and repairs on the secondary clarifier before secondary clarifiers #1 and #2 are demolished as part of the wastewater capital improvement project where a new 10 million gallon per day (mgd) secondary clarifier will be constructed in their place.

5. Nansemond Treatment Plant (NTP)

a. On January 19, aeration tank #7 was returned to service after the new Big Bubble Mixers were installed. This is the third of four tanks to have the mixers installed. This project will allow for a lower dissolved oxygen setpoint to be reached in the aeration tanks, while still maintaining adequate mixing, which will increase the efficiency of nutrient removal. This project will also result in a reduction of both chemical and energy costs.

b. On January 31, staff discovered a frozen Non-Potable Water (NPW) line for secondary clarifier #5 that was broken. Due to the location, only about 100 gallons were not recovered. The NPW flow was secured, and the line was repaired. Due to oversight, staff failed to report this spill to Department of Environmental Quality (DEQ) within the 24-hour reporting window.

c. Staff and contractors completed functional testing of Phase 1 of the Struvite Recovery Facility (SRF) upgrade. The facility is expected to be online in early February. This project consists of a new Programmable Logic Controller (PLC), a new product dryer, new harvest lines, a new and improved operator workspace, and other minor upgrades. A larger upgrade is planned to begin in April, which will incorporate the additional loading from the closure of the Boat Harbor Treatment Plant (BHTP).

d. Sustainable Water Initiative for Tomorrow (SWIFT) Research Center (RC)

(1) The total volume of SWIFT Water™ recharge into the Potomac aquifer for the month of January was 5.91 million gallons (MG) (26.7% Recharge Time based on 500 gpm).

(2) Recharge activities resumed on January 6, after contractors completed the conditioning of the new well.

(3) Contractors installed new actuators on the Granular Activated Carbon (GAC) vessels to be able to operate filter-to-waste and effluent flow control from the Distributed Control System (DCS).

(4) The upgraded inline mixer for propane addition was installed upstream of biofilters 1 and 3. The purpose of this project is to evaluate the co-metabolic enhancement of biological removal of 1,4-dioxane.

(5) Recharge operations were hindered by a combination of problems. These problems mainly were:

(a) Contractor work: well conditioning, propane inline mixer installation, GAC actuators.

(b) Instrumentation: various issues with different analyzers.

(c) Influent water quality: Total Inorganic Nitrogen (TIN) spikes.

6. Virginia Initiative Plant (VIP)

a. There was a reportable event on January 14, when a diaphragm valve on the disinfection hypochlorite line leaked back into the pump vent line, allowing some hypochlorite to recirculate to the storage tank instead of flowing to the contact tank. This caused a low contact tank effluent chlorine residual of less than 0.10 mg/L. Staff replaced the valve.

b. There was an overwhelming amount of grease present in the plant influent from the afternoon of January 25, until the morning of January 26. Staff worked overtime to keep the grease moving through the band screens and compactors. Approximately eight cubic yards of compacted grease was removed from the influent during a 16-hour period. Staff also contacted the Department of Water Quality but because of the short duration of the event identifying a specific source was not possible.

7. Williamsburg Treatment Plant (WBTP)

a. Operation of incinerator #2 was started the first week of January.

b. Discharge of Fats, Oils and Grease (FOG) by haulers to the WBTP, for the most part, remained suspended while the FOG system is out of service for repair. The contractor fabricating the FOG thickened tank rake received steel materials and worked on fabricating the new rake. Projected completion of the FOG thickened tank is early March.

c. For the anticipated February THP shut down at Atlantic Treatment Plant (ATP), WBTP will accept approximately 10,000 gallons of FOG per day, for one week. To accomplish this, WBTP will not receive the settable FOG that week. The 10,000 gallons of floatable FOG will be stored in the FOG water tank. Unfortunately, this tank does not have a skimmer to remove FOG floating on top of the water, so once all FOG is received, staff will need to drain the water beneath the FOG floating at the top of the tank and will instead store floatable FOG in the FOG water tank. The removal of FOG from the FOG water tank will require significant time and labor and could take a few weeks.

8. York River Treatment Plant (YRTP)

Preliminary design efforts began for rehabilitating corroded primary pipes from distribution chamber #1 to the aeration tanks. Emphasis was placed on keeping primary clarifiers operating during construction and minimizing aeration tank down time.

9. Incinerator Operations Events Summary

a. Total Hydrocarbon (THC) monthly averages (not to exceed 100 parts per million) were met by all five treatment plants with incinerators with a THC continuous emissions monitoring (CEM) valid data captured of greater than 97 percent.

b. There were two deviations from the required 129 SSI rule minimum operating parameters and two minor bypass events (<60 minute).

C. Small Communities (SC)

1. Middle Peninsula

a. Urbanna Treatment Plant (UTP) and Collections

Operators fabricated additional metal brackets and an adjustable weir in the screening trough at the plant's headworks. The brackets and weir will allow for additional hardware cloth to be added and increased retention time within the trough to aid in rag and grit removal.

b. West Point Treatment Plant (WPTP) and Collections

The contractor continues to make good progress with the rehabilitation of the 7th and Lee Pump Station (PS). Installation of new equipment and piping has commenced in earnest; factory acceptance testing is nearing completion for the new station controls.

c. King William Treatment Plant and Collections

Cold weather temperatures combined with a drop in plant alkalinity levels contributed to some treatment challenges. To improve performance over the course of the month, supplemental seeding was added utilizing mixed liquor from Williamsburg Treatment Plant (WBTP) along with starting up a new chemical alkalinity feed. Additionally, a filter "clean in place" was performed on both Train 1 and 2 membranes.

d. Central Middlesex Treatment Plant and Collections

A supply line for the return/waste activated sludge (RAS/WAS) failed this month. Staff drained secondary clarifier #1 and repaired the line.

2. Surry Systems

a. County of Surry

On January 6, approximately 655 gallons of partially treated wastewater overflowed out of the county treatment plant drain system when staff from the Sussex Service Authority (SSA) manually turned off the post equalization discharge pumps for maintenance activities but failed to turn them back on.

b. Town of Surry

On January 16, Pump Station (PS) #6 in the Town of Surry along with Dendron PS #1B overflowed from a wet weather event.

A combined total of 3,355 gallons was estimated to be lost from these spills.

3. Eastern Shore

a. Onancock Treatment Plant (OTP)

The OTP property deed was finally recorded, and the treatment plant is now officially owned by HRSD. The employees at the treatment plant are now officially HRSD employees.

b. Nassawadox Riverside Treatment Plant (NRTP)

There was a weekly maximum ammonia concentration permit exceedance with a value of 3.34 mg/L compared to the permit limit of 1.7 mg/L. This weekly exceedance resulted in a monthly average exceedance of 2.16 mg/L compared to the permit limit of 1.7 mg/L. This plant has historically struggled with nitrification in the winter months due to cold temperatures caused by long process hydraulic residence times, surface aeration, and inconsistent influent flows. Over the past six months, staff made operational process upgrades to preserve nitrification throughout the winter cold season. However, these improvements were not sufficient to maintain nitrification once process temperatures reached five degrees Celsius. Nitrifying biomass was added from Virginia Initiative Plant (VIP) and Army Base Treatment Plant (ABTP) on January 13, 17, and 24. This kept ammonia temporarily below the permit limit. Staff quickly designed a long-term solution that utilizes integrated fixed film activated sludge process to retrofit the existing aeration basin and are planning to complete the retrofit in February.

D. Support Systems

1. Staff performed routine load bank and generator tests at various Pump Stations (PS) and the main office complexes. All generators operated as designed and were returned to service.

2. Staff continues to work on repairs to the Army Base Treatment Plant (ABTP) incinerator building elevator. Staff is working with Organization Development and Training (OD&T) staff to relocate them to the 1434 Water Quality area on the second floor. Staff completed renovation of the storage area for the Communications Division and started working on new office space for OD&T. Staff completed 17 projects, two of which were total pump rebuilds. One notable project included fabricating a fix for two, 36-inch full circle clamps that were damaged by a contractor. Another special project was making a IFAS retention screen out of a three-foot PVC pipe with over 800 holes for OTP.

E. Electrical & Instrumentation (E&I)

1. Staff discovered a broken racking mechanism on the utility switchgear’s tie circuit breaker at ATP. The racking mechanism is used to insert or remove a circuit breaker from its switchgear compartment. The mechanism was replaced, and the tie circuit breaker was returned to normal operation.

2. Staff installed a Jarbalyzer for full-scale pilot testing of various Integrated Fixed Film Activated Sludge (IFAS) technologies in aeration tanks 5 and 8 at JRTP. The Jarbalyzer will monitor the performance and progress of the IFAS pilot testing.

3. Staff assisted contractors with the installation of two Motor Control Center's (MCC's) located in the Headworks Building at YRTP. The copper bus within the MCCs had deteriorated due to hydrogen sulfide (H2S) gas exposure. As a mitigation strategy all penetrations and conduits were sealed. In addition, an air purification and filtration system will be installed to help remove harmful and corrosive H2S gases from the electrical room.

4. Staff assessed and investigated issues at the Hartman Avenue PS and discovered a pump control failed at the South Street Pump Station (PS) in Onancock.

F. Water Technology and Research

This month continues a discussion of the factors that affect plant capacity, and how the HRSD treatment process research program is contributing to the intensification of aeration tanks and clarifiers. The word intensification in this sense refers to obtaining more treatment capacity from our existing aeration tank and clarifier infrastructure without sacrificing operating costs. One of the more significant factors affecting plant capacity is mixed liquor settleability. Poor settleability has a significant impact on aeration tank and clarifier sizing, and this is typically engineered on a statistical basis, with even relatively short periods of poor settleability at a plant that settles well on "average" resulting in substantially larger design tank volumes. The reason for this is that periods of poor settleability often occur at the worst time, specifically during winter conditions and wet weather. With years of research on this topic, we generally know how to design aeration tanks to maintain good settling but avoiding these sporadic and short-lived periods of bad settling has been a significant challenge for our industry. Technologies and design approaches that provide certainty of avoiding periods of poor settleability are therefore quite compelling from a capital cost savings standpoint. Going further, technologies that improve settling even more on average and that minimize the impact of bad settling periods have the potential to result in significant infrastructure savings. Broadly, this technology sector is known as aerobic granular sludge, ballasted flocculation, and the combination of physical, kinetic, and metabolic selection processes, where the objective is the enhancement and selection/retention of good settling biomass flocs and granules, and the wasting of poor settling flocs and filamentous bacteria.

G. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	2	3	3	4	2	4	4					
2.7	# of PS Annual PMs Performed (SS)	6	6	4	5	2	4	2					
2.7	# of Backup Generator PMs Performed (Target is 4.6)	10	13	8	10	8	13	12					
2.8	# of FM Air Release Valve PMs Performed (NS)	72	89	184	210	166	251	149					
2.8	# of FM Air Release Valve PMs Performed (SS)	124	165	193	269	167	205	211					
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	5,209	0	9,963	8,696	3,829	3,161	4,047					
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	3,531	7,717	10,276	5,272	0	0					
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	0	11,796	0	11,796	24,175	33,133					

H. Strategic Measurement Data

1. Education and Outreach Events: 2

   a. 01/05/2022 - Follow-up meeting with City of Virginia Beach Public Utilities Operations staff to discuss the Chesapeake-Elizabeth Treatment Plant (CETP) closure and the effects on the locality system – South Shore (SS) Interceptors

   b. 01/12/2022 – Conducted an emergency response class for Hampton Roads Public Works Academy (HRPWA) – Sam McAdoo

2. Community Partners: 3

   a. Chesapeake Bay Foundation-Oyster Cage Maintenance at BHTP for Oyster Garden Project

   b. DOE Jefferson Lab

   c. Old Dominion University (ODU)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2022
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (538) – Current Month	Hours / FTE	2.06
M-1.4b	Total Training During Work Hours per FTE (538) – Cumulative Year-to-Date	Hours / FTE	19.80
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	26,400.72
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	59.52%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	17.23%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	23.25%
M- 4.1a	Energy Use: Treatment *Reported for January 2022	kWh/MG	3,002
M-4.1b	Energy Use: Pump Stations *Reported for January 2022	kWh/MG	241
M-4.1c	Energy Use: Office Building *Reported for January 2022	kWh/MG	115
M-5.2	Educational and Outreach Events	Number	2
M-5.3	Number of Community Partners	Number	3

Respectfully submitted,
Steve de Mik
Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for January 2022

DATE: February 8, 2022

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	14
Job Offers Accepted – Internal Selections	4
Job Offers Accepted – External Selections	11
Internal Applications	22
External Applications	222
Average Days to Fill Position	76

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

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

Description	January 2022	Total (March 2020 – January 2022)
Quarantines due to illness or direct exposure (household or external)	44	416
Work Related Quarantines	4	59
Personal Travel Quarantines	1	59
Confirmed Employee COVID-19 Cases	68	191
Work Related Confirmed COVID-19 Cases	4	6
Contractor COVID-19 Cases on HRSD Sites*	0	12
Vaccine Acknowledgements	12	831
Booster Acknowledgements	309	323

b. The Human Resources (HR) Business Analyst continued generating weekly Employee Vaccine Acknowledgement reports for Data Analysts to update the Vaccine Status Dashboard. HRSD's current vaccination rate is 98% and 39% of employees have received the booster.

c. Staff continued addressing multiple Vaccination Policy religious and medical exception requests.

3. Business Analysts, HR, Organizational Development and Training (OD&T) and Information Technology (IT) staff continued testing for the system-wide upgrade.

4. Compensation and Benefits

   Pre-Renewal meetings were held with HRSD's Benefit consultant to:

   a. Review previous, current year and projected utilization, claims, and cost trends for medical, vision and dental plans.
   b. Evaluate renewal options including coverage, deductibles, and cost-saving strategies

5. Wellness Program

   a. Participation

Year Nine Participation Activities	Unit	January 2022	Year to Date (March 2021– February 2022)
Biometric Screenings	Number	85	362
Preventive Health Exams	Number	83	333
Preventive Health Assessments	Number	127	358
Online Health Improvement Programs	Number	157	379
Web-MD Online Health Tracking	Number	102	482
New Challenges	Number	88	428
Fit-Bit Promotion	Number	5	52

   b. The *Team-to-Team Weight Loss Challenge with W M Jordan* was promoted and launched. A private discussion board was created for the 30 registered participants. The *Holiday Maintain Don't Gain* Challenge concluded with 58 participants.

   c. The Wellness Specialist worked on the February wellness demonstration and updated the information for the WebMD lobby for the upcoming 2022-2023 wellness year.

   d. The Wellness Specialist began managing the spouse COVID vaccination file and sending the Wellness welcome email for new employees and spouses.

   e. As the wellness year is in its last month, the Wellness Specialists have been helping wellness participants with log in issues and updating Optima's front in with wellness documents.

6. Organizational Development consultant Hicks Carter Hicks performed the following :

   a. Conducted a Division Leaders Forum. The meeting centered on how to listen to employees and helping them feel heard.

   b. Worked with the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) strategies.

   c. Worked on the Leadership Ethical Accountability Program, LEAP Supervisor training program.

   d. Facilitated *Emotional Intelligence and Coaching Workshops* for the Women in Leadership Program.

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

   f. Continued work with a team of Leadership and Management Academy (LAMA) participants to develop a presentation for resolving Employee Burnout to be presented to the QST.

7. Coordinated a cross-sectional team to advance the functionality of Canvas.

8. Apprenticeship Program

   a. The new *See Yourself Successful* team continues to review the training conducted in December and make improvements. The training will be facilitated again in August.

   b. Work continued on the following:

      (1) See Yourself Successful- Student Success Skills Programs
      (2) Apprentice Mentoring Program
      (3) Request for Proposals for a Student Information System and Attendance and Assessment applications.

   c. Several improvements were initiated:

      (1) Standard Operating Procedures
      (2) Staff visited work centers to provide Apprenticeship Program information to apprentices and supervisors.

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

	2021	**2022**
Mishaps	33	4
Lost Time Mishaps	12	3
Numbers subject to change pending HR review of each case.		

10. Safety and HR staff finalized the Occupational Safety and Health Administration (OSHA) 300 Log of 2021 Work Related Injuries and Accidents. The document was distributed to all work centers for required posting and submitted to OSHA.

11. Industrial Hygienists escorted the James City County Fire Marshals around the Williamsburg Treatment Plant for an inspection.

12. Safety Division Monthly Activities

Safety Training Classes	16
Work Center Safety Inspections	9
Reported Accident Investigations	4
Construction Site Safety Evaluations	16
Contractor Safety Briefings	4
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	355
Industrial Hygiene Monitoring Events	1

13. Staff participated in the following external activities:

    a. Strengths Finder Training and Coaching

    b. Master Schedule Builder Workshop

    c. CAT Simulator Training

    d. Virginia Water Environment Association (VWEA) Diversity, Equity, and Inclusion Committee

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (0)

2. Community Partners: (0)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2022
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.4
M-1.1b	Employee Turnover - Service Retirements	Percentage	27.3
M-1.4a	Total Training Hours Per Full Time Employee (17)	Total Training Hours/ FTE	0.76
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	18.23
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	0

Respectfully submitted,
Dorissa Pitts-Paige
Director of Talent Management

TO: General Manager

FROM: Director of Water Quality (WQ)

SUBJECT: Monthly Report for January 2022

DATE: February 10, 2022

A. General

1. Pretreatment and Pollution Prevention (P3) Division assessed one civil penalty. An Enforcement Order was issued in December 2021 to Marva Maid Dairy in Newport News for an administrative violation related to their Consent Order. The Enforcement Order contained an invoice for a $2,000 Civil Penalty. The Permittee is under a Consent Order to upgrade their pretreatment system to address ongoing compliance issues associated with oil and grease, pH, and solids accumulation in the sewerage system. The Consent Order requires Marva Maid Dairy to submit quarterly updates by the 10th day of the month following the previous quarter to keep HRSD apprised of the status of work completed under the Consent Order. Quarterly update #3 was received nine days late. The due date of the quarterly updates has been reiterated to the Permittee. The Enforcement Order was accepted, and the Civil Penalty was paid in full on January 11, 2022.

2. A new Virginia Pollutant Discharge Elimination System (VPDES) permit was issued for the Atlantic Treatment Plant which included updated permit requirements to reflect the transition to Class A biosolids following implementation of the thermal hydrolysis process. Class A materials have a reduced land application fee and once the material is registered with the Virginia Department of Agriculture and Consumer Services, it can be applied to non-permitted agricultural land and sold to local distributors such as nurseries. The permit also includes additional monitoring and reporting requirements to document 85% removal of BOD (biological oxygen demand) and TSS (total suspended solids) through wastewater treatment as a monthly average. Previously, this requirement was narrative and did not include monitoring and reporting of percent removal as a permit condition. This new requirement will be added to each HRSD VPDES permit upon reissuance. Though most HRSD facilities will easily be able to meet this requirement, facilities that have a low influent BOD will likely experience challenges. WQ is working with Operations and DEQ regional permitting staff to evaluate the applicability of special conditions for less concentrated influent wastewater.

B. Quality Improvement and Strategic Activities

The Sustainability Environment Advocacy (SEA) Group implemented a composting program at the new Water Quality Services Building (WQSB). The program goal is to divert compostable items from the landfill waste stream to create a usable product. A secondary goal is to evaluate the overall feasibility of a workplace composting program and determine best practices to develop a model program for interested work centers to implement.

C. Municipal Assistance

HRSD provided sampling and analytical services to Hanover County, Northumberland County, Stafford County, Westmoreland County, South Central Wastewater Authority, the City of Fredericksburg, and the Town of Lawrenceville to support monitoring required for respective Virginia Pollution Discharge Elimination System (VPDES) permits and to the City of Chesapeake to support Microbial Source Tracking projects.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Community Partners: 5

   a. The City of Chesapeake, Chesapeake Local Health District and the Virginia Department of Health - Local COVID-19 wastewater surveillance

   b. Lynnhaven River Now -water quality trend analysis of citizen monitoring data

   c. Hampton Roads Planning District Commission - Fats, Oils & Grease subcommittee

   d. Virginia Water Environment Association (VWEA) Water For People committee

   e. Led the American Red Cross Blood Drive at Air Rail Avenue on January 19, 2022

3. Odor Complaints: 3

   See attached Effluent and Air Emissions Summary for details.

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2022
M-1.4a	Training During Work Hours Per Full Time Employee (119) (Current Month)	Total Hours / # FTE	5.01
M-1.4b	Total Training During Work Hours Per Full Time Employee (119) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	31.41
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	5:35,513
M-3.2	Odor Complaints	#	3
M-3.4	Pollutant Removal	Total Pounds Removed	107,695,395

Item #	Strategic Planning Measure	Unit	January 2022
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	15%
M-5.2	Educational and Outreach Events	#	0
M-5.3	Community Partners	#	5
	Average Daily Flow	Total MGD for all Treatment Plants	120.79
	Pretreatment Related System Issues	#	0

Respectfully submitted,

Paula A Hogg

Director of Water Quality

EFFLUENT SUMMARY FOR JANUARY 2022

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	8.38	47%	6	6.0	5	3	0.44	0.44	3.4	3.4	3
ATLANTIC	42.47	79%	11	11	2	1	NA	NA	NA	NA	8
BOAT HARBOR	15.64	63%	9	8.4	1	1	0.41	0.41	18	18	7
CENT. MIDDLESEX	0.005	20%	<2	1.3	<1	1	NA	NA	NA	NA	NA
CHES-ELIZ	0.00	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA
JAMES RIVER	14.47	72%	8	6.1	1	1	1.1	1.1	9.7	9.7	6
KING WILLIAM	0.064	64%	<2	<1.0	NA	<1	0.54	0.54	3.1	3.1	NA
NANSEMOND	16.32	54%	5	5.9	3	1	0.67	0.67	4.5	4.5	1
NASSAWADOX	0.02	20%	4	11	<1	1	0.39	0.39	12	12	NA
ONANCOCK	0.18	24%	1	0.20	1	2	0.34	0.34	1.5	1.5	NA
SURRY, COUNTY	0.047	73%	3	2.2	NA	1	NA	NA	NA	NA	0
SURRY, TOWN	0.043	72%	8	12	NA	36	NA	NA	NA	NA	NA
URBANNA	0.041	41%	5	7.5	10	5	0.24	0.24	8.6	8.6	NA
VIP	25.64	64%	5	2.2	2	1	0.23	0.23	3.7	3.7	5
WEST POINT	0.433	72%	20	5.6	<1	1	2.5	2.5	17	17	0
WILLIAMSBURG	8.25	37%	6	4.0	2	5	0.66	0.66	3.5	3.5	11
YORK RIVER	14.08	94%	2	1.1	1	2	0.24	0.24	5.2	5.2	3
	146.09										

	% of Capacity
North Shore	64%
South Shore	56%
Small Communities*	45%

Tributary Summary

	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged YTD	Operational Projection CY22		Discharged YTD	Operational Projection CY22	
Tributaries	%	Lbs	%	%	Lbs	%
James River	5%	2,417,906	68%	4%	217,796	69%
York River	8%	269,099	93%	7%	16,674	86%
Rappahannock	3%	NA	NA	0.3%	NA	NA

Permit Exceedances:Total Possible Exceedances, FY22 to Date: 5:35,513

Pounds of Pollutants Removed in FY22 to Date: 107,695,395

Pollutant Lbs Discharged/Permitted Discharge FY22 to Date: 15%

*Small Communities includes Eastern Shore

Rainfall (inch)

	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	5.98"	5.47"	5.27"
Normal for Month	3.51"	3.21"	3.52"
Year to Date Total	5.98"	5.47"	5.27"
Normal for YTD	3.51"	3.21"	3.52"

AIR EMISSIONS SUMMARY FOR JANUARY 2022

	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	0	0	0	0	0	0	0	35	99	0
BOAT HARBOR	1	0	0	n/a	0	0	0	1	6	97	0
VIP	0	0	0	n/a	0	0	0	1	35	99	0
WILLIAMSBURG	1	0	0	n/a	0	0	0	0	13	100	0

ALL OPERATIONS

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

Items of Interest – January 2022

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 97%.

The MHIs had two deviations from the required 129 SSI rule minimum operating parameters and two minor bypass events (<60 minute).

HRSD submitted the Army Base first quarter HCl corrective action plan to DEQ on January 10.

DEQ issued Chesapeake-Elizabeth a warning letter on January 21 for the 129 MHI emissions limits exceedance identified in the final test report submitted to DEQ on December 27. HRSD responded to the warning letter on January 27 that identified the suspected cause of the failed test, the fact that the plant has also closed, and the MHIs as shutdown. Hence, no retest of the MHIs to demonstrate compliance was planned.

On January 26 HRSD received DEQ's mutual determination letter that HRSD Chesapeake-Elizabeth wastewater treatment plant located at 5332 Shore Dr., Virginia Beach, Virginia as being permanently shut-down. HRSD responded on January 27 including the General Manager's notarized signature as the responsible official for the Title V permit under the Clean Air Act agreeing to the fact that the facility is permanently shut-down.

HRSD submitted stack test protocols for Boat Harbor and Army Base to DEQ on January 27. 129 MHI emissions limits testing is scheduled for March 1 and March 3, respectively.

AIR PERMITS and ODOR CONTROL

HRSD received three odor complaints and had three hydrogen sulfide (H_2S) plant odor wet scrubber exceptions in January.

Atlantic received two reports of odors January 2 and 13 as being observed by a neighbor in Ocean Lakes. The first report identified an odor somewhat like a chicken processing plant on Bernstein Drive that is located west of the plant. Although the prevailing winds did not place the plant upwind of their location, TSD performed a field investigation. Atlantic had no offsite odors at the time of investigation and the source of odor complaint went undetermined. The second report from the same neighbor identified similar types of odors as noted on January 2. Plant staff and TSD responded together and found the strong odors from the digester pressure relief vents (PRVs) and annular spaces. These odors coupled with worst case Met conditions (prevailing light easterly winds) created some offsite odor on Firefall Drive. There were also issues with the digester gas flares at the time that may have resulted in incomplete gas combustion and odor generation. In addition, flare malfunctions may have been impacting gas pressures in the digesters, which could have caused gas discharge from the PRVs and annular spaces. The PRVs were verified to be sealed and the flare problem was addressed by plant staff. No further complaints received.

York River received an odor complaint on January 5 from a neighbor on Back Creek Road. Given the nature of the complaint, we were able to attribute the primary source of the complaint to the motor control center (MCC) project work at the headworks that lasted from November 24 thru January 4. A secondary source of petrochemical type odors has also been observed near the intersection of Goodwin Neck and Back Creek roads and is most likely coming from the Plains Company fuel storage facility.

HRSD will continue to monitor odors at Atlantic and York River throughout 2022 to ensure we are meeting our good neighbor policy.

TREATMENT
DEQ was notified of the following reportable events:

Nansemond
On January 31 a PVC Non-Potable Water (NPW) line on a secondary clarifier broke and sprayed NPW into the air with some soaking into the ground. The relief operator shut the NPW valve securing the line. Approximately 100 gallons of NPW were released. This event did not meet the 24-hr reporting requirement.

Virginia-Initiative
On January 14 a 30 minute chlorine residual of less than 0.10 mg/L was recorded. This low chlorine residual occurred when a vent valve on a hypochlorite pump discharge line did not hold, causing some of the hypo flow to recirculate to the storage tank instead of flowing to the contact tank. Staff isolated and replaced the hypochlorite pump vent valve and re-established hypo flow to the contact tank.

Williamsburg
On January 4 a Maintenance Operator was passing by the south side of the Dewatering building and observed water coming up out of the asphalt. The water was traveling to the nearby storm drain resulting in an offsite discharge. The NPW line was isolated and all unit processes that use NPW were shutdown. Contractors excavated the NPW line and located a circumferential crack. The damaged section of line was repaired. Approximately 3,216 gallons of NPW were released to a storm drain leading to Grove Creek.

On January 8 a Plant Operator was performing his rounds on the north side of Intermediate Clarifier #2 and observed water coming out of a NPW line next to the tank where the 2" ball valve failed. The water was traveling to the nearby storm drain resulting in an offsite discharge. The NPW line was isolated for the intermediate process and capped. Approximately 41,100 gallons of NPW were released to the James River.

SYSTEM
On January 5 a leak was discovered coming up through the pavement at 3612 Robin Hood Rd, Norfolk. Staff saw cut and removed the pavement and created a small excavation to control the spill, the bulk of which was recovered with a Vactor. A failed coupling, likely installed during original construction of pipeline in 1953, was determined to be the cause of the failure. Two new fittings and a section of pipe were installed. Approximately 150 gallons of wastewater entered a storm pipe to Wayne Creek.

On January 30 wastewater was observed leaking up through grass/soil near the Pump Station (PS) at 858 Jamestown Crescent, Norfolk. Staff turned off the HRSD PS and closed a nearby valve to isolate the leak. The leak was caused by a circumferential crack in the pipe, which was repaired with a full circle clamp. Approximately 300 gallons of wastewater entered a storm pipe leading to the Lafayette River.

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

Surry County

On January 5 a Sussex Service Authority (SSA) operator manually turned off the Post EQ discharge pumps at the Surry County Treatment Plant for maintenance activities. The operator forgot to turn the discharge pumps back to the auto position after the maintenance activities were finished. This operator error resulted in three intermittent spills until the discharge pumps were placed back into automatic position. The following day the SSA operator turned the Post EQ discharge pumps back to automatic mode and the Post EQ tank started discharging flow to the effluent chamber. Approximately 655 gallons of partially treated wastewater were discharged to the ground draining to Dark Swamp.

Nassawadox-Riverside

This facility reported one weekly and one monthly exceedance for Ammonia during the month of January.

	Reported Value	Permit Limit
Ammonia (01/23/22 weekly avg)	3.4 mg/L	1.7 mg/L
Ammonia (January monthly avg)	2.2 mg/L	1.7 mg/L

This plant has historically struggled with nitrification in the winter months due to colder temperatures combined with long process hydraulic residence times, surface aeration, and inconsistent influent flows. Over the past six months, staff made operational process upgrades to preserve nitrification throughout the winter season. However, these improvements were not sufficient to maintain nitrification once process temperatures reached 5 degrees C. Nitrifying biomass was added to NR process from two other HRSD treatment plants on January 13, 17, and 24. This temporarily kept ammonia concentrations below the permit level but was not proving to be a lasting solution. Staff quickly designed a long-term solution which utilizes an integrated fixed film activated sludge process to retrofit the existing aeration basin and is awaiting approval to implement the process. All other weekly and monthly permit limits were met.

System - Surry

On January 16 heavy rain inundated the area and a release occurred near Dendron Pump Station 1 in Surry County. The Town of Surry Treatment Plant rain gauge recorded 1.5 inches of rainfall between 12:45 and 20:30 on 1/16/22. SSA checked the station and found both pumps operating properly. Approximately 915 gallons of wastewater were released to the ground draining to Cypress Swamp.

On January 16 over 1.5 inches of rain fell between 12:45 and 20:30 in the Town of Surry and the collection system at Surry Pump Station 6 was overwhelmed. Sussex Service Authority (SSA) confirmed the station pump was operating properly but the diesel bypass pump had failed to start and they were not able to get it running. The diesel bypass pump had low voltage even though the battery tender was functional. SSA did not have an extra battery or jumper cables capable of reaching the pump battery. Sam McAdoo (HRSD) arrived onsite at 11:20 pm with jumper cables and a portable battery jumper and was able to get the diesel pump running. The overflow stopped a few moments after and flows receded and the station pump was able to keep up with the flow. The pump battery was replaced. Approximately 2,440 gallons of wastewater were released to a ditch draining to Crouch Creek.

2022 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56	0.03											
	TKN	3.0	<0.50											
King William	Zinc	*	75											
	TKN	3.0	1.3											
Nassawadox Riverside	Cadmium	2.0	<0.50											
	Copper	23	<5.0											
	Nickel	38	17											
	Zinc	150	<50											
	Ammonia	1.7	2.2^											
Surry County	Copper	5.9	3.0											
	Zinc	56	24											
	Ammonia	0.77	NA	NA	NA	NA	NA						NA	NA
	TKN	3.0	0.55											
Town of Surry	Copper	12	2.0											
	Zinc	39	14											
	Ammonia	4.5	0.11											
	TKN	6.7	2.0											
Urbanna	Ammonia	3.83, 9.08	7.76											

*No limit. Treatment objective 53 ug/L
Units: TKN, Ammonia: mg/L. Metals: ug/L

^Monthly average 2.2, weekly Jan 23 3.4

2022 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	8.38												8.38	7.92
Atlantic	42.47												42.47	31.24
Boat Harbor	15.64												15.64	11.30
C.Middlesex	0.005												0.005	0.006
Ches-Eliz	0.00												0.00	9.11
James River	14.47												14.47	12.72
King William	0.064												0.064	0.069
Lawnes Point	0.000												0.000	0.000
Nansemond	16.32												16.32	15.48
Nassawadox	0.02												0.020	0.011
Onancock	0.18												0.18	Pending
Surry, County	0.047												0.047	0.041
Surry, Town	0.043												0.043	0.033
Urbanna	0.041												0.041	0.049
VIP	25.64												25.64	22.97
West Point	0.433												0.433	0.365
Williamsburg	8.25												8.25	8.22
York River	14.08												14.08	10.90
North Shore	52.45												52.45	43.13
South Shore	92.81												92.81	86.71
Small Communities	0.83												0.83	0.60
TOTAL	146.09												146.09	130.43

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

Hampton Roads Sanitation District
Internal Audit Status
January 31, 2022

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

I. *Projects in Process*

Model 3 Billing

- **Tasks Completed (January 2022)**
  - Issued final draft report for management's review
- **Upcoming Tasks (February 2022)**
  - Obtain management's feedback
  - Update report as necessary
  - Issue final report

Unifier/ERP Integration

- **Tasks Completed (January 2022)**
  - Continued fieldwork phase
  - Conduct fieldwork walkthrough meeting discussions
- **Upcoming Tasks (February 2022)**
  - Continue testing
  - Conduct fieldwork open item discussions
  - Conduct findings validation meeting

Grant Management

- **Tasks Completed (January 2022)**
  - 1/17/22: Met with Finance to discuss the grant universe within HRSD
- **Upcoming Tasks (February 2022)**
  - Conduct additional meetings with Engineering, Customer Care, and Water Technology and Research to discuss the grant universe within HRSD
  - Conduct project kick-off

Risk Assessment Refresh

- **Task Completed (January 2022)**
  - Continued risk assessment activities
- **Upcoming Tasks (February 2022)**
  - Finalize risk assessment activities
  - Begin risk assessment reporting activities

Emergency Repairs

- **Completed internal audit: Final report issued January 2022**

II. Management Action Plan Monitoring

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

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

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

			Recommendations		
Audit	**Report Date**	**Next Follow-up**	**Closed**	**Open**	**Total**
Biosolids Recycling	10/8/16	Spring 2022	7	1	8
Treatment Plant Operations	10/15/18	July 2022	8	1	9
Customer Care Division	7/26/19	February 2022	2	2	4
Safety Division	9/12/19	February 2022	0	3	3
Pollution Source Control	6/2/20	February 2022	3	5	8
SWIFT Program	2/24/2021	February 2022	0	12	12
Fleet Services	2/24/2021	February 2022	0	17	17
Succession Planning	6/4/2021	July 2022	0	4	4
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
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
		Totals	82	45	127

Hampton Roads Sanitation District

Internal Audit

Emergency Repairs

January 18, 2022

Table of Contents

Executive Summary

SC&H conducted an internal audit of Hampton Roads Sanitation District's (HRSD) emergency repairs function.

Emergency repairs are most often repair activities that occur as the result of a system failure at an HRSD treatment plant or along a wastewater line managed by HRSD. Failures are deemed an emergency if they have a direct impact to the public that poses a public health and safety concern. The following provides a summary of the internal audit's objectives, process, and results.

SC&H thanks HRSD; including the Operations, Engineering, Communications, and Water Quality Departments, and all involved personnel for their assistance and cooperation throughout the internal audit process.

Internal Audit Objectives

A. Evaluate select emergency repair management activities for operational effectiveness.
B. Evaluate emergency repair vendor performance for compliance with agreements and contracts.
C. Evaluate emergency repair incidents for compliance with Department of Environmental Quality regulatory reporting.
D. Perform analytical procedures on emergency repair data and evaluate for opportunities for HRSD to streamline processes and reduce costs.

Internal Audit Process

SC&H conducted the internal audit using the following three-phased approach.

1. Planning: Understand processes, evaluate risks and controls, and develop fieldwork 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 emergency repairs function appears to incorporate processes and controls designed to effectively mitigate risks. The applied methods appear to be planned and organized, while operating with flexibility to enable HRSD to address issues timely based on the specific emergency type.

The following provides areas where exceptions were noted and opportunities to mitigate risks exist. Details are located in the "Observations and Recommendations" section of this report.

1. Documentation completion.
2. Work order re-opening justification.

Internal Audit Summary

Background

SC&H conducted an internal audit (audit) of Hampton Roads Sanitation District's (HRSD) emergency repairs function. The emergency repairs function is an organizational-wide activity centrally managed by the Operations Department (Operations), with collaboration and involvement from multiple HRSD departments.

Emergency Repair Summary

Occasionally and unplanned, an incident or significant event (or, emergency event) may occur which requires an urgent HRSD response. On these occasions, HRSD formally declares an emergency response.

Examples

1. *An emergency event occurs when part of HRSD's piping system becomes uncontrolled, which may include water or waste spills.*
2. *Waste spills are considered an emergency as soon as waste hits the ground due to public health implications.*

HRSD may respond to an emergency event in one of three main locations: interceptors, treatment plants, and small communities. The severity and level of effort to complete a repair may vary based on the type of emergency event, the location impacted, and the size of the spill or line break.

Upon notice of the emergency event, HRSD Operations staff in conjunction with other departments, conducts a variety of activities designed to remediate the event's results and impact, and performs an emergency repair. The following is a summary of the emergency repair process and key events.

Emergency Repair Notification and Response

HRSD can be notified of a potential emergency event in three ways.

1. Public: The public can identify the event and call HRSD Customer Service. The public may also call the locality, who in turn notifies HRSD Operations.
2. Locality: A locality can identify the event and notify HRSD Operations.
3. HRSD: HRSD can internally identify an emergency event.

Upon HRSD's notification of an event, Operations staff are deployed to the affected area and assess the situation to determine a course of action to resolve the incident. The on-site supervisor will determine if the incident is an emergency based on the severity of the issue and a determination as to whether the event has a public health/safety impact.

Once an emergency event is identified, an emergency repair is initiated, there is an inter-department coordination effort to determine the extent of the repair, as well as approach to address it. Throughout the entirety of the response, Operations, the Engineering Department (Engineering), Communications Department (Communications), and Water Quality Department (Water Quality) coordinate to ensure efforts are completed timely and the emergency repair is performed with minimal impact to the public.

Emergency Repair Declaration

Following the identification of an emergency repair and initial assessment of the efforts required to complete the repair, a Request for Emergency Designation form may be completed by Operations staff and provided to the Director of Operations and General Manager, or designee, for review and approval. The form describes the situation; short term plan to address the event; and authority to address repairs and hire consultants, contractors, or other needed outside support services. In certain extreme emergencies, a verbal authorization from the General Manager is sufficient to begin addressing the emergency. A follow-up memorandum is then prepared as soon as reasonably possible.

Further, as soon as reasonably possible, HRSD's Commission is briefed on emergency designations since they are necessary to bypass competitive purchasing requirements or exceed a contract's task order limitation of $200,000 . The briefing includes an estimate of repair costs and other relevant information.

Emergency Repair Activities

After identifying an emergency, HRSD creates a work activity log of emergency repairs within HRSD's Computerized Maintenance Management System (CMMS). When creating the CMMS entry, HRSD creates an activity title and a summary of the emergency event, including how HRSD was notified. Activity related to the emergency repair is logged within CMMS to record and maintain repair efforts. Resulting work orders associated with the emergency repair effort are created within CMMS, and internal costs associated with the repair effort are tracked by work order number for fund allocation.

While Operations has the resources to complete most emergency repairs, an outside firm may be hired to complete certain components of the repair effort. A construction contract may be negotiated and awarded without competitive bidding if the General Manager designates an emergency. In these instances, services are procured using as much competition as practical under the circumstances.

Outsourced emergency repair work is tracked utilizing purchase orders (POs) issued through Oracle E-Business (or, ERP), HRSD's financial management enterprise resource planning (ERP) system. HRSD primarily utilizes two vendors to assist with emergency repair efforts when applicable. Both vendors provide support and additional resources during the assessment and execution of the repair effort. Should the need for additional work or services arise, a separate PO may be issued to perform continued maintenance and repairs on the impacted area. Costs associated with these repair efforts are tracked within ERP. When the cost is expected to exceed $100,000, staff generally requests the Commission to establish a Capital Improvement Project to pay for and track all direct costs associated with the emergency. .

Regulatory Reporting

During the initial assessment of an emergency repair, Operations contacts Water Quality to notify them of a Sanitary Sewer Overflow (SSO) associated with an emergency event, if applicable. Water Quality is required to submit an initial report of an SSO within 24-hours and provide a final report within five days of the event. Operations completes a Regulatory Reporting Form detailing the nature of the SSO, the anticipated impact, and the action taken to resolve the issue. Based on the SSO type, Water Quality notifies the applicable regulatory reporting agencies of the SSO and the anticipated impact of the event.

Emergency events that occur within the interceptor systems are reported through the Hampton Roads Planning District Commission (HRPDC) Sanitary Sewer Overflow Reporting System (SSORS), those occurring at treatment plant emergencies are reported through the Department of Environmental

Quality's (DEQ's) Report Pollution Webpage, and those occurring in small communities are communicated to DEQ and the Virginia Department of Health via email. Evidence of emergency communications to the various agencies is maintained by Water Quality.

External Communication

Communications works with Operations, Engineering, and Water Quality to determine how external communications will be disseminated. Operations completes a Communications Spill Reporting Form for emergency events, and provides to the Director of Communications who prepares a press release for various media outlets, community leaders, and citizens of the affected area.

Objectives and Scope

Objectives

The following objectives were established based on the internal audit planning procedures:

A. Evaluate select emergency repair management activities for operational effectiveness.
B. Evaluate emergency repair vendor performance for compliance with agreements and contracts.
C. Evaluate emergency repair incidents for compliance with Department of Environmental Quality regulatory reporting.
D. Perform analytical procedures on emergency repair data and evaluate for opportunities for HRSD to streamline processes and reduce costs.

Scope

The audit was initiated in March 2021. Fieldwork procedures began in June 2021 and were completed in November 2021. The audit focused on the policies, procedures, and controls in place at the time of the internal audit. Data analytics and documentation sample selections were examined for the period of July 1, 2018 through June 30, 2021.

Methodology and Approach

SC&H performed the following procedures:

Process Walkthrough and Flowchart Creation

SC&H obtained and reviewed emergency repair policy and procedural documentation, emergency repair project management documents, and reporting forms utilized by Operations during an emergency repair. SC&H also met with members of Operations, Engineering, Communications, and Water Quality to conduct detailed process understanding discussions of in-scope emergency repair functions. Based on the discussion and review of the procedural documentation, SC&H created flowcharts to document the following processes:

1. Emergency Repair Identification
2. Emergency Spill Repair
3. Spill Communication
4. Regulatory Reporting
5. Commission Emergency Repair Notification

Risk Ranking and Creation of Project Plan

Following the documentation of process steps, SC&H developed an emergency repairs 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 the 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:

1. Verified emergency repairs were identified and communicated in a timely manner for a sample of emergency repairs. This included confirming:
    a. An Emergency Declaration Form was submitted to the Director of Operations and General Manager for approval.
    b. The Commission was notified of the emergency repair and cost estimates were disclosed for associated CIP projects.
    c. Communications was provided with adequate information to disseminate to the public and media outlets related to each emergency.
2. Verified work orders related to a sample of emergency repairs were created, updated, completed, and closed in a timely manner. This included reviewing costs associated with the work order and comparing to other cost information associated with each emergency.
3. Performed data analytics related to vendor cost data to understand total cost attributed to outsourced emergency repair efforts for the period in scope.
4. Reviewed contractor invoices submitted in conjunction with completion of an emergency repair and compared to contracts/purchase orders issued to the contractors to ensure costs were accurately reported.
5. Reviewed regulatory reporting documentation for compliance for a sample of emergency repairs.

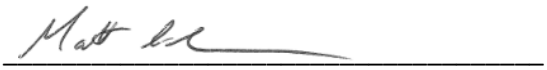
Summary of Work

The emergency repairs function appears to incorporate effectively designed processes and controls to address emergency events. The practices performed by the various HRSD departments and people appear to be planned and conducted in an organized manner. These methods incorporate flexibility to enable HRSD the ability to address issues timely based on the specific emergency type.

After reviewing the emergency repairs function, SC&H concludes that opportunities exist to mitigate risks based on exceptions identified during internal audit procedures. These opportunities are documented as two observations that can be incorporated into HRSD and Operations. The following section provides detailed observations and recommendations regarding these topics.

We appreciate the assistance and cooperation of the management and staff involved in HRSD's emergency repairs function. 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

Pertinent documentation may not be completed timely for each emergency event/repair.

Detail

Communications has implemented a Communications Spill Reporting Form that is completed by Operations following the identification of an emergency event. The purpose of the form is to ensure necessary information about an incident is documented and made available to Communications, who is responsible for alerting the public and providing details to media outlets.

For two of five samples tested, a Communications Spill Reporting Form was not completed. Email communication was provided denoting an emergency had occurred. However, the information provided in the email did not include all criteria detailed on the Communications Spill Reporting Form. No further evidence of the coordination with other departments was provided.

Risks

1. Failure to provide complete emergency information may result in inaccurate and untimely information being disseminated. This may further result in issues related to containing and remediating an emergency repair.
2. Maintaining incomplete information could have negative implications if formal information requests are submitted to HRSD (e.g., Freedom of Information Act).

Recommendation 1.1

Operations should ensure required information is completed for each emergency repair. While the completion of the repair and coordination with contractors assisting with the work are priorities, Operations should make a best effort to complete and communicate complete information needed by other departments within a reasonable timeframe. This will help ensure all parties receive the information needed to communicate with the public and media when discussing the emergency repair effort.

Management Action Plan

We concur. HRSD established the Communications Spill Reporting Form and the Regulatory Reporting Form to communicate all critical event information. Supervisors will be reminded that these forms must be completed in a timely manner during all future events.

Implementation Date/Period

February, 2022

Observation 2

Summary

There is a lack of documentation associated with the opening, closing, reopening, and reclosing of emergency repairs that explains why a project status has changed.

Detail

SC&H reviewed data from five emergency repairs to identify work orders that appeared to be open for an extended period of time when compared to the average sampled work order. For two of five samples tested, work orders appeared to have been open/reopened over the course of 348 days and 941 days, respectively. The other three samples averaged 41 days until close. The following provides further detail for the repairs with an extended open period.

Westminster Drive Force Main
Per CMMS, the Westminster Drive Force Main Replacement had an original work order creation date of January 30, 2019 and a final close date of January 13, 2020 (or 348 days). The work order was initially closed on February 4, 2019 by HRSD. It was then reopened and reclosed by HRSD on January 13, 2020 with no additional cost (or comment) added. CMMS did not document why the work order was reopened and reclosed on the same day.

Kempsville Road Interceptor Force Main
Per CMMS, the Kempsville Road Interceptor Force Main Repair had a work order creation date of August 20, 2018 and final close date of March 13, 2021 (or 941 days). Per CMMS, the last labor recording to close out the project occurred on September 27, 2018 (38 days from creation date). SC&H worked with HRSD to identify the reason for the perceived extended open time. Per research from HRSD, the extended time period was due to reopening and reclosing the work order multiple times to apply payments to it, and the work order was not actually opened for the full time period. CMMS did not document why the work order was reopened and reclosed multiple times over multiple years.

Risks

Work orders maintaining open status during periods of inactivity and/or periods when work is complete presents the risk of inappropriate application and/or misapplication of costs to projects.

Recommendation 2.1

Operations should ensure that a status description for the opening, closing, reopening, and reclosing of a work order is required and completed for each emergency repair. Operations should work directly with appropriate stakeholders and departments to identify the rationale behind the status change. This will help ensure an accurate description for a status change is formally documented.

Management Action Plan

We concur. HRSD will discuss viable options for CMMS protocols and/or enact database design alterations to identify and record status change documentation. This CMMS alteration should be implemented for all work orders that are re-opened and not just emergency work orders.

Implementation Date/Period

September, 2022

Recommendation 2.2

Operations should consider designating a contact with knowledge of the work order to coordinate and obtain the necessary information to provide an accurate description for any status change. The description of status change should then be formally documented in the appropriate system for record keeping.

Management Action Plan

We concur and will establish a point of contact within the divisions.

Implementation Date/Period

February, 2022

Annual Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%	6.63%	6.78%	6.31%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%	2.10%	3.08%	5.44%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	85%	63%	78%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60	95
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1	40.9	39.3	28.2
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7	4.1	4.8	4.1
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34	1.3
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8	1.6	4.1
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%	123%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%	155%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887	29,596	28,722
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%	62%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%	16%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%	25%	22%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%	7%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7	1.75
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940	56,473,800	58,044,110
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277	2,408	2,459
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174	170
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102	82
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%	1.8%	1.3%	1.4%
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		$1,028	$1,095	$1,174	$1,232	$1,249	$1,279	$1,246	$1,285	$1,423	$1,348	$1,487	$1,545
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%	0.71%	0.67%
M-4.5	Total Operating Cost/MGD	Total Operating Expense/ 365/5-Year Average Daily Flow		$2,741	$2,970	$3,262	$3,316	$3,305	$3,526	$3,434	$3,592	$3,959	$3,823	$4,048	$4,311
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A	53%	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%	138%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32	27
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8	152.23	149.84	149.72
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24	53.1	48.49	54.04
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%	72%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%	5.80%	6.03%
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%	2.81%	2.66%

*to be reported

Monthly Updated Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22 Dec-21	FY-22 Jan-22
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	120.8	120.8
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	106%	106%	105%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	102%	104%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			$17,013,784	$17,359,488	$18,795,475	$20,524,316	$20,758,439	$22,444,273	$22,572,788	$22,243,447	$23,900,803	$27,335,100	$34,060,154	$42,173,073	$44,943,904
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	35%	36%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	9:60879	23:60879	3:30440	5:35513
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	4	3
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	182,759,003	183,123,855	93,741,304	107,695,395
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	18%	14%	15%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	60	44
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	10	8

Resource: Charles Bott

AGENDA ITEM 18.c. – February 22, 2022

Subject: James River Treatment Plant Advanced Nutrient Reduction Improvements (ANRI) Emergency Declaration

CIP Project: JR013400

Recommended Action: No action is required. Information Only

Brief: As part of the ANRI project, it was decided to upgrade the James River Treatment Plant (JRTP) aeration tanks from an A20 configuration to 5-stage with partial denitrification-anammox (PdNA) moving media integrated fixed-film activated sludge (MIFAS) in a newly created second anoxic zone. PdNA MIFAS provides considerable operational cost savings, but more importantly, this is needed to meet nitrogen limits in the future for James River SWIFT and to meet new total nitrogen discharge requirements. This work was not included as part of the original ANRI project but was added later following successful pilot testing and demonstration of PdNA.

The only time available for PdNA MIFAS construction to occur is immediately before the larger ANRI construction project begins to avoid significant conflicts with the larger design-build project performing construction in the same space to upgrade the secondary clarifiers.

An emergency declaration was authorized on February 11, 2022

The estimated cost of this work is $6,000,000 and will be funded from the CIP JR013400 appropriation. It includes the buildout of PdNA MIFAS in seven aeration tanks following the upgrade that already occurred in one tank. The MIFAS project includes equipment (mixers, biofilm carriers, sieve panels), new stainless steel baffle walls, wet weather bypass gates and actuators, electrical equipment, sensors, construction services, electrical and instrumentation installation, and programming.