COMMISSION MEETING MINUTES
February 29, 2016

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Attachments (3)

COMMISSION MEETING MINUTES
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Name	Title	Present for Item Nos.
Lakdawala, Vishnu K.	Commission Chair	Absent
Elofson, Frederick N.	Commission Vice-Chair	1-14
Bredemeyer, Arthur C.	Commissioner	Absent
Glenn, Michael E.	Commissioner	1-14
Levenston, Jr., Willie	Commissioner	1-14
Lynch, Maurice P.	Commissioner	1-14
Rodriguez, Stephen C.	Commissioner	1-12
Rotkis, Susan M.	Commissioner	1-14

1. AWARDS AND RECOGNITION

Action: No action required.

Brief: Mr. Henifin announced the following awards and introductions.

a. Sample Collection System Patent – Invented by Danny Barker

HRSD is proud to honor Mr. Danny Barker, Environmental Scientist in the Technical Services Division, with a copy of the patent he received for his invention of a sample collection system that provides a representative sample and avoids contamination of the sample during collection, preparation and storage for subsequent analysis.

b. New Employee

Mr. Henifin introduced John "J." Dano, who was recently promoted to Chief of Planning & Analysis. A licensed Professional Engineer, J. joined HRSD in 2005 as a Project Manager. In that capacity, he has overseen some of our more complex Capital Improvement Program projects including efforts at the Atlantic Treatment Plant and the Virginia Initiative Plant. He has been an HRSD Quality Facilitator since 2006 and served as an Apprentice instructor for multiple courses including treatment plant math. J. received his bachelor's and master's degrees in Civil Engineering from Virginia Tech. He also holds certifications as a Project Management Professional (PMP) and Envision Sustainability Professional (ENV SP). His desire to serve is evident in his enthusiasm, dedication and ability to get things done.

c. Awards

(1) Commissioners Elofson, Lynch and Rodriguez, along with staff, represented the organization on January 28 when HRSD received the **2016 Inside Business River Star Hall of Fame Award**. Patricia Richardson, publisher of *The Virginian-Pilot,* presented this extraordinary honor. HRSD was also recognized for its **Sustained Distinguished Performance as a Model Level River Star Business**. The three-minute video produced by the Elizabeth River Project to highlight HRSD's record of "doin' right by the river" was shown during the Commission meeting.

(2) HRSD was pleased to receive a **2016 National Environmental Achievement Award (NEAA) in the Public Information & Education – Education Program** category for the *H2w0w: Wonders of Water, Virginia STEAM Academy Program*. Commissioner Lynch accepted this award on behalf of HRSD during a ceremony at the National Association of Clean Water Agencies' Winter Conference.

(3) In addition, on January 19, HRSD Community Educator Sarah Crawford and representatives of the Virginia STEAM Academy received from Governor Terry McAuliffe a **2016 Programs that Work award presented by the Virginia Mathematics and Science Coalition**. HRSD's *Wonders of Water* course, designed and delivered in collaboration with Chesapeake Bay Foundation and Elizabeth River Project, was featured in Virginia STEAM Academy's application.

(4) The **United Way of the Virginia Peninsula** honored HRSD employees for their commitment to improving lives in the community through participation in the 2015 United Way campaign. Long-time campaign leaders Denise Deaver, Water Quality, and Shawn Heselton, Operations, were recognized for their efforts.

Attachment: None

Public Comment: None

2. CONSENT AGENDA

Action: Approve the items listed in the Consent Agenda.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Willie Levenston	**Nays:**	0

Brief:

a. Approval of minutes from previous meeting.

b. Contract Awards

1. Coating and Concrete Rehabilitation of Digesters $758,326
2. Polydyne Polymer Blanket Purchase Contract $1,097,159

c. Task Orders

1. Regional Hydraulic Model and Other Consent Order Requirements $225,000

d. Change Orders

1. Oracle Utilities Customer Care and Billing (CC&B) Upgrade $325,000

e. Sole Source

1. AIRVAC Valve Pit Packages
2. Leadership Strategies Inc. for Facilitator Training
3. Netzsch Pump
4. Walker Process Equipment Gravity Thickener Parts

Item(s) Removed for Discussion: None

Attachment #1: Consent Agenda

Public Comment: None

3. LAWNES POINT TREATMENT PLANT

Action: Approve acceptance of the dedication to HRSD of the Lawnes Point Treatment Plant and associated sewer facilities from Virginia Timberline, LLC.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Michael Glenn	**Nays:**	0

Brief: Lawnes Point is a residential neighborhood in Isle of Wight County that was developed in the mid-2000s, shortly before the economy collapsed. The development of approximately 160 lots included a water system to be dedicated to the County and a sewage treatment plant to be retained by the developer. Build out of the development has been slower than anticipated, with approximately 20 homes built and occupied at this time. Flow has not been sufficient to operate the facilities and sewage has been pumped and hauled as an interim measure. Building has resumed and flows now will support the operation of the treatment plant.

Virginia Timberline (developer of Lawnes Point) approached HRSD to obtain nutrient credits to support their discharge into the James River. While the plant is permitted by the Virginia Department of Environmental Quality, Lawnes Point did not receive nutrient allocation as it was not discharging at the time. As staff researched the nutrient credit request, the long term viability of a privately operated treatment plant in this sensitive location was brought into question.

A series of discussions with the County has led to the conclusion that it would be in the best interest of the environment, the County and the residents of Lawnes Point for HRSD to assume ownership and operation of the treatment plant and associated facilities. The developer initially wanted to sell the facilities to HRSD but has now agreed to dedicate the facilities to HRSD at no cost.

Should the Commission accept the dedication, HRSD will assume ownership and operation as soon as the appropriate real estate documents can be prepared and executed. Staff anticipates operating the plant by contract in the near term while other options can be evaluated. All houses within Lawnes Point will become HRSD customers and subject to HRSD charges. New homes will be required to pay established HRSD facility charges upon issuance of building permits.

This issue has highlighted the need for an HRSD policy regarding privately owned treatment facilities within the HRSD service area to guide future similar situations. Staff will prepare background materials and a policy recommendation for Commission consideration at a future Commission meeting.

Discussion Summary: HRSD may seek to set a minimum monthly fee requirement until the development is completed and flow is sufficient to operate the facilities.

Attachment: None

Public Comment: None

4. **BRIDGE STREET PUMP STATION REPLACEMENT ADDITIONAL APPROPRIATION, CONTRACT AWARD AND TASK ORDER (>$200,000)**

Actions:

a. Appropriate additional funding in the amount of $7,519,400.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Willie Levenston	**Nays:**	0

b. Reject the bid submitted by Trident Civil, Incorporated and find the bidder non-responsible.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Willie Levenston	**Nays:**	0

c. Approve a contract with MEB General Contractors, Inc. in the amount of $10,647,000.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Willie Levenston	**Nays:**	0

d. Approve a task order for HDR Engineering, Inc. under the General Engineering Services contract in the amount of $933,121.

Moved:	Maurice Lynch	**Ayes:**	6
Seconded:	Willie Levenston	**Nays:**	0

CIP Project: BH011600

Budget	$6,604,000
Previous Expenditures and Encumbrances	($1,674,779)
Available Balance	$4,929,221
Proposed Contract to MEB General Contractors, Inc.	($10,647,000)
Proposed Task Order to HDR Engineering, Inc.	($933,121)
Proposed Contingency	($868,500)
Project Shortage/Requested Additional Funding	($7,519,400)
Revised Total Project Authorized Funding	$14,123,400

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Trident Civil, Inc.	$10,430,625
MEB General Contractors, Inc.	$10,647,000
T.A. Sheets General Contractors, Inc.	$10,961,000
J. Sanders Construction Company	$11,893,858
SHAW Construction Corporation	$13,881,000

Engineer Estimate: **$11,921,503**

Contract Status	Amount
Original Contract for HDR Engineering, Inc.	$198,507
Total Value of Previous Task Orders	$669,292
Requested Task Order	$933,121
Total Value of All Task Orders	$1,602,413
Revised Contract Value	$1,800,920
Engineering Services as % of Construction	17%

The low bidder Trident Civil, Incorporated has been determined to be non-responsible. Upon review of the questionnaire and follow-up information provided by the low bidder, it was determined that the projects referenced were not similar in nature to the Bridge Street Pump Station Replacement project. The referenced projects provided were significantly smaller in size and scope. Please note that this finding is not a statement regarding the reputation of Trident Civil, Incorporated nor is it a reflection of their ability to successfully complete projects within their area of expertise. HDR Engineering, Inc. evaluated bids and recommends award to MEB General Contractors, Inc.

Project Description: This project includes the replacement of the Bridge Street Pump Station to address conditional issues. The proposed replacement will include a relocated pump station, force main and gravity sewer connections to the existing sewer system.

Funding Description: The additional funding is required due to the scope of the construction requiring more facility development than anticipated. As the project progressed it was determined that wet and dry weather pumps would be required, a separate electrical room was required for arc flash requirements, additional ventilation was required to meet code requirements, and the design and construction of the building foundation is extensive.

Task Order Description: This task order will provide contract administration and inspection services. A meeting was held with HDR to discuss the project and scope of services. A fee of $933,121 was negotiated which will provide the required services during construction.

Analysis of Cost: The engineering services to construction cost ratio is 17 percent. This cost is in agreement with other similar efforts from other firms. In particular the costs compare well to the Coliseum Pressure Reducing Station.

Schedule:	PER	February 2015
	Design	May 2015
	Bid	December 2015
	Construction	March 2016
	Project Completion	February 2018

Discussion Summary: MEB General Contractors, which has performed satisfactorily on similar work for HRSD, has the resources to accomplish this project on schedule. Completion of this project is required by our Consent Decree so it cannot be delayed.

Attachment #2: PowerPoint

Public Comment: None

5. HAMPTON TRUNK SEWER DIVISION A REPLACEMENT ADDITIONAL APPROPRIATION

Action: Appropriate additional funding in the amount of $600,000.

Moved:	Willie Levenston	**Ayes:**	6
Seconded:	Susan Rotkis	**Nays:**	0

CIP Project: BH011200

Budget	$4,538,000
Previous Expenditures and Encumbrances	($4,524,504)
Available Balance	$13,496
Proposed Change Order No. 2 to MEB General Contractors, Inc.	($123,500)
Proposed Contingency	($489,996)
Project Shortage/Requested Additional Funding	($600,000)
Revised Total Project Authorized Funding	$5,138,000

Project Description: The Commission approved this CIP project at the August 26, 2014 meeting. This project entails the study, design and replacement and/or rehabilitation of the gravity sewer from the intersection of 14th Street and Jefferson Avenue (including HRSD junction box) to the HRSD junction box downstream of the inverted siphon located in the vicinity of the off-ramp of I-664. This effort will include the bypass pumping and temporary piping to facilitate maintenance of existing flows during construction. This project requires a system evaluation to determine the effects on pump stations and must consider the relocation of gravity connection(s) from Newport News. The project also includes an evaluation of the capacity of the existing Newport News owned gravity sanitary sewer downstream of Jefferson Avenue/14th Street intersection and generating alternatives for rerouting City flows away from the current HRSD junction box. In addition, an evaluation for alternatives to relocate and/or replace HRSD-owned inverted siphon at the end of Jefferson Avenue and rehabilitate and/or replace HRSD's 48-inch interceptor sewer downstream of the I-664 off-ramp to Terminal Avenue is included in this project. Rehabilitation of six manholes along the alignment from Terminal Avenue to the Boat Harbor Treatment Plant is also included in this scope of work.

Funding Description: This project requires additional funding due to unforeseen conditions encountered during construction that resulted in several change orders. The original CIP project estimate included a three percent contingency; however,

the contingency was consumed with the first change order. This request includes a total of $600,000, comprised of $123,500 for the second change order and a $489,996 contingency to accommodate a final change order, currently under negotiation.

Schedule:	PER	February 2009
	Design	September 2012
	Bid	July 2014
	Construction	September 2014
	Project Completion	March 2016

Attachment: None

Public Comment: None

6. **YORK RIVER TREATMENT PLANT DIGESTER COVER REPLACEMENT PHASE II**
INITIAL APPROPRIATION

Action: Appropriate total project funding in the amount of $1,400,500.

Moved:	Susan Rotkis	**Ayes:**	6
Seconded:	Michael Glenn	**Nays:**	0

CIP Project: YR012220

Project Description: This project will include the design and installation of a fixed steel cover to replace the damaged WesTech DuoSphere double membrane cover that is currently in place on the secondary anaerobic digester at York River Treatment Plant (YRTP). A fixed steel cover with a liquid seal arrangement was the recommended replacement alternative based on the technical, structural and geotechnical evaluation of replacement covers applicable for installation at YRTP completed by CH2M Hill Engineers, Inc.

Funding Description: The total cost for this project is estimated to be $1,400,500. The estimated project cost is based on the construction cost estimate prepared by CH2M Hill Engineers, Inc. and includes design and bid services, construction administration, construction inspection and project contingencies.

Schedule:	Design	March 2016
	Bid	July 2016
	Construction	October 2016
	Project Completion	March 2018

Attachment: None

Public Comment: None

7. SUSTAINABLE WATER RECYCLING INITIATIVE (SWRI)

Action: No action required.

Brief: The SWRI continues to move forward since approved by the Commission at the August 2015 meeting. Staff has made numerous presentations to stakeholders, finalized the scope of the next phase of the CH2M Hill study, designed the treatment train pilots for construction at the York River Treatment Plant and identified an HRSD project manager to manage the pilot projects. With the visibility and importance of this initiative, staff will provide quarterly updates to the Commission beginning with the February Commission meeting.

Discussion Summary: The integrated plan schedule for existing Consent Decree requirements, Sustainable Water Recycling and continuation of sewer overflow work will be based on an affordability analysis. Outreach strategies, messages and terminologies are being developed.

Attachment: None

Public Comment: None

8. UNFINISHED BUSINESS

Jay Bernas, Director of Finance, presented information on the recent bond pricing.

9. NEW BUSINESS

Mr. Henifin stated he was contacted recently by a member of the Virginia Senate regarding possible funding for the Sustainable Water Recycling Initiative.

Mr. Henifin suggested the Commission consider adding the Biosolids Program to the internal audit work plan and conduct that audit after completion of the ongoing CIP effort. The Commission concurred and agreed that the plan would be adjusted to reflect this change.

10. COMMISSIONER COMMENTS – None

11. PUBLIC COMMENTS – None

12. INFORMATIONAL ITEMS

Action: No action required.

Brief: The items listed below were presented for information.

a. Management Reports

b. Strategic Planning Metrics Summary

c. Effluent Summary

d. Air Summary

Attachment #3: Informational Items

Public Comment: None

13. RECESS

14. WORK SESSION – CAPACITY AND FLOW ACCEPTANCE POLICY DISCUSSION

Brief: Staff has been working on new policies to govern connections to the regional sanitary sewer system. These policies define HRSD service areas, establish submittal and review requirements, identify flow planning parameters and set forth time frames required for expansion of the regional sanitary sewer system. With HRSD's new responsibility for regional wet weather capacity, the flow acceptance process has become more critical and requires clear policies to guide our locality partners. Staff briefed the Commission on the proposed policy highlights and will incorporate feedback in the policies to be presented for approval during the March Commission meeting.

Action: No action is required.

Discussion Summary: During the workshop the Commission agreed in principle to the following concepts to be incorporated into a Capacity and Flow Acceptance Policy that will be presented to the Commission for approval at a future meeting:

1. As the regional sewer treatment agency, HRSD shall plan for and accept all flows generated within sewer service areas as defined in each locality's comprehensive plan
2. Service areas shall be identified in a locality's comprehensive plan as a sewer service area and generally within 2 miles of an existing HRSD interceptor
3. Future service areas shall be identified in locality comprehensive plans as sewer service area and generally more than 2 miles away from an existing HRSD interceptor and not served by municipal water system
4. Expansion requests by local government require at least 2-year prior notice including
    a. Documented action by local governing body
    b. Timing coordinated with provision of municipal water services
5. HRSD facility sizing at HRSD's risk
6. Elimination of participation agreements as used in past
7. Locality has option to expand at own cost and timing
    a. Must build to HRSD standards
    b. Dedicate facilities to HRSD
8. No connection to HRSD facilities without HRSD review and approval
9. HRSD will issue flow acceptance letter for connections with location specific design pressure heads

10. All terminal pump stations (connecting to HRSD or locality force main) must receive HRSD review and approval – size does not matter
    a. Must be built to HRSD standards
11. HRSD's preference is to build, own and operate all new terminal pump stations at developer or locality cost
12. Rehabilitation or upgrade of terminal pump stations must receive HRSD review and approval

Staff will prepare background materials and a policy recommendation on the ownership of privately held facilities for Commission consideration at a future meeting.

Attachment: None

Public Comment: None

Announcements:

- The Finance Committee will meet on Monday, March 7, at 9:00 a.m. to review the Draft Capital Improvement Program for Fiscal Years 2017-2026.
- The Annual Pretreatment Awards luncheon will be held on April 20.

Next Commission Meeting Date: March 22, 2016 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 11:06 a.m.

SUBMITTED:

Jennifer L. Cascio
Secretary

APPROVED:

Frederick N. Elofson
Vice-Chair

ATTACHMENT #1

AGENDA ITEM 2. – Consent Agenda

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.b.1. – February 29, 2016

Subject: Coating and Concrete Rehabilitation of Digesters
Contract Award (>$200,000)

Recommended Action: Award a contract to Vast Solutions of Virginia, LLC in the amount of $758,326.

CIP Project: NP013300

Budget	$1,099,042
Previous Expenditures and Encumbrances	($120,050)
Available Balance	$978,992

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Vast Solutions of Virginia, LLC	$758,326
W W Enroughty and Son, Inc.	$899,858
Vanwin Coatings of VA, LLC	$981,400
Marine Hydraulics International, Inc.	$1,158,328

HRSD Estimate: $662,000

Project Description: This project is to rehabilitate the digester floating covers over a two-year period. The rehabilitation activities include blasting and coating the internal and external surfaces of both digester covers and replacing all digester rollers and roller housings.

Contract Description: This contract is to rehabilitate the number one and two digesters at the Nansemond Treatment Plant in FY-16 and FY-17. The rehabilitation activities include abrasive blasting and coating of the internal and external surfaces of both digesters including the attic space, concrete work on the tank walls and piping system inside determined by inspection.

Schedule:

Bid	December 2015
Construction	March 2016
Project Completion	June 2017

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.b.2. – February 29, 2016

Subject: Polydyne Polymer Blanket Purchase Contract
Contract Award (>$200,000)

Recommended Action: Award a blanket purchase contract for Polydyne Polymer to Polydyne, Inc. in the estimated amount of $1,097,159 for one year with annual renewal options and an estimated cumulative value for five years in the amount of $5,485,795.

Type of Procurement: Competitive Evaluation

HRSD Estimate: $1,164,137

Contract Description: This is a blanket purchase agreement for the supply and delivery of Polydyne brand polymers for use by all HRSD treatment plants on an as needed basis. All costs were discussed with the vendor and the unit costs for all products have decreased an average of nine percent.

Purchases are based on HRSD's Polymer Evaluation Policy, which provides an organized approach for competitive evaluation, selection and purchase of polymers. Evaluation and selection is based on pre-defined performance criteria, a series of onsite testing and price. These factors determine the most cost effective polymer, based on performance, for use in various HRSD treatment plant applications. The policy establishes formal evaluation and selection procedures, requires routine testing of polymers and is open to all interested vendors throughout the year.

CONSENT AGENDA ITEM 2.c.1. – February 29, 2016

Subject: Regional Hydraulic Model and Other Consent Order Requirements Task Order (>$200,000)

Recommended Action: Approve a task order with CDM Smith in the amount of $225,000.

CIP Project: GN012110

Budget	$101,254,812
Previous Expenditures and Encumbrances	($90,580,716)
Available Balance	$10,674,096

Project Description: Engineering services, system inspections and software expenses are required to create a fully functional extended state hydraulic model for the specified portions of the Regional Sanitary Sewer System. Model features and engineering services to include extended state simulation, GIS data integration, interoperability with the localities' hydraulic models, training, and database administration. Additional modeling efforts and software purchases for each of the localities and the Middle Peninsula are included as part of this project. Additional task items to be completed as mandated by the Consent Decree include overall program management and guidance, Consent Decree Negotiation, Locality coordination, Capacity and Condition Assessment (an estimated 2-5 percent of the interceptor force mains and 100 percent of the gravity interceptors will need to be inspected for possible defects), Public Participation, overall SCADA coordination, SSES planning, rehabilitation planning and implementation, and preparation and implementation of the Regional Wet Weather Management Plan (RWWMP). Other related work includes: surveying of manholes and pumping stations, several consent order related studies, and hydraulic model support to make sure other CIP projects fully comply with the Federal EPA Consent Decree.

Task Order Description: This task order includes the overall management and coordination of all the work orders and their interaction within Phase 3 – Regional Hydraulic Model portion of the project. Modeling work will be intensive as the Alternative Analysis Report is developed for submission in July 2016 and work on the RWWMP continues through submittal in October 2017. This task order also includes preparing for, attending and follow-up activities associated for the following meetings: Model Users Group, Locality and Capacity Team (with HRPDC), Wet Weather Management Program Leadership Team, Model Coordination and Technical Review Committee.

Analysis of Cost: The estimated budget for a nine-month period (January 2016 through October 2016) is $225,000. This amount is based on an average cost of $25,000 per month. Average expenditures per month for FY-2014 and FY-2015 were $24,930 $38,744 monthly since project inception.

Resource: Jay Bernas

CONSENT AGENDA ITEM 2.d.1. – February 29, 2016

Subject: Oracle Utilities Customer Care and Billing (CC&B) Upgrade Contract Change Order (>25% or $50,000)

Recommended Action: Approve a change order with Oracle America, Inc. in the amount of $325,000.

Contract Status:	Amount	Cumulative % of Contract
Original Contract with Oracle America, Inc.	$1,294,940	
Total Value of Previous Change Orders	$22,990	2%
Requested Change Order No. 2	$325,000	
Total Value of All Change Orders	$347,990	27%
Revised Contract Value	$1,642,930	

Time (Additional Calendar Days)		0

Change Order Description: This change order includes the upgrade of Oracle Utilities CC&B application from version 1.5.15 to version 2.5.1. as well as all services related to implementation of Oracle Utilities Customer Self Services application version 2.1.

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.e.1. – February 29, 2016

Subject: AIRVAC Valve Pit Packages
Sole Source (>$10,000)

Recommended Action: Approve AIRVAC Valve Pit Packages for use at all HRSD facilities.

CIP Project: MP011400

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
- ☒ Only known source

Details: This product, which no other manufacturer offers, includes a complete system comprised of the outer shell, vacuum valve and internal piping and hoses. The pit packages are part of a larger Mathews Collection System Vacuum Valve Replacement Capital Improvement Program project. Due to the dimensions of the pit (shape, depth, diameter, etc.) as well as the unique inlet and outlet locations, the existing AIRVAC vacuum valves and pits must be replaced with that same product.

Resource: Paula Hogg

CONSENT AGENDA ITEM 2.e.2. – February 29, 2016

Subject: Leadership Strategies Inc. for Facilitator Training
Sole Source (>$10,000)

Recommended Action: Approve Leadership Strategies Inc. as the provider for facilitator training at HRSD.

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
- ☒ Only known source

Details: Service includes continuous development of facilitation skills that are specific to the training methodology used for HRSD's Quality program. The Quality Facilitator team has successfully trained under Leadership Strategies Inc. since 2006. Acquiring another vendor would disrupt the continuity of methodologies and implementation of HRSD's long standing training program.

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.e.3. – February 29, 2016

Subject: Netzsch Pump
Sole Source (>$10,000)

Recommended Action: Approve Netzsch pumps for use at the Atlantic Treatment Plant.

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
- ☒ Only known source

Details: Product includes the Netzsch pump only. The pump must be an exact replacement to ensure proper fit with piping configuration for the Thickened Waste Activated Solids (TWAS) process.

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.e.4. – February 29, 2016

Subject: Walker Process Equipment Gravity Thickener Parts
Sole Source (>$10,000)

Recommended Action: Approve Walker Process Equipment Gravity Thickener Parts for use at HRSD.

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
- ☒ Only known source

Details: Product includes the Gravity Thickener parts only. The parts must be exact to ensure proper fit as the Gravity Thickeners have unique designs per manufacturer.

HRSD COMMISSION MEETING MINUTES
February 29, 2016

ATTACHMENT #2

AGENDA ITEM 4. - Bridge Street Pump Station Replacement PowerPoint Presentation

Cleaning wastewater every day for a better Bay.

Bridge Street Pump Station Overview

February 29, 2016

Bridge Street Pump Station

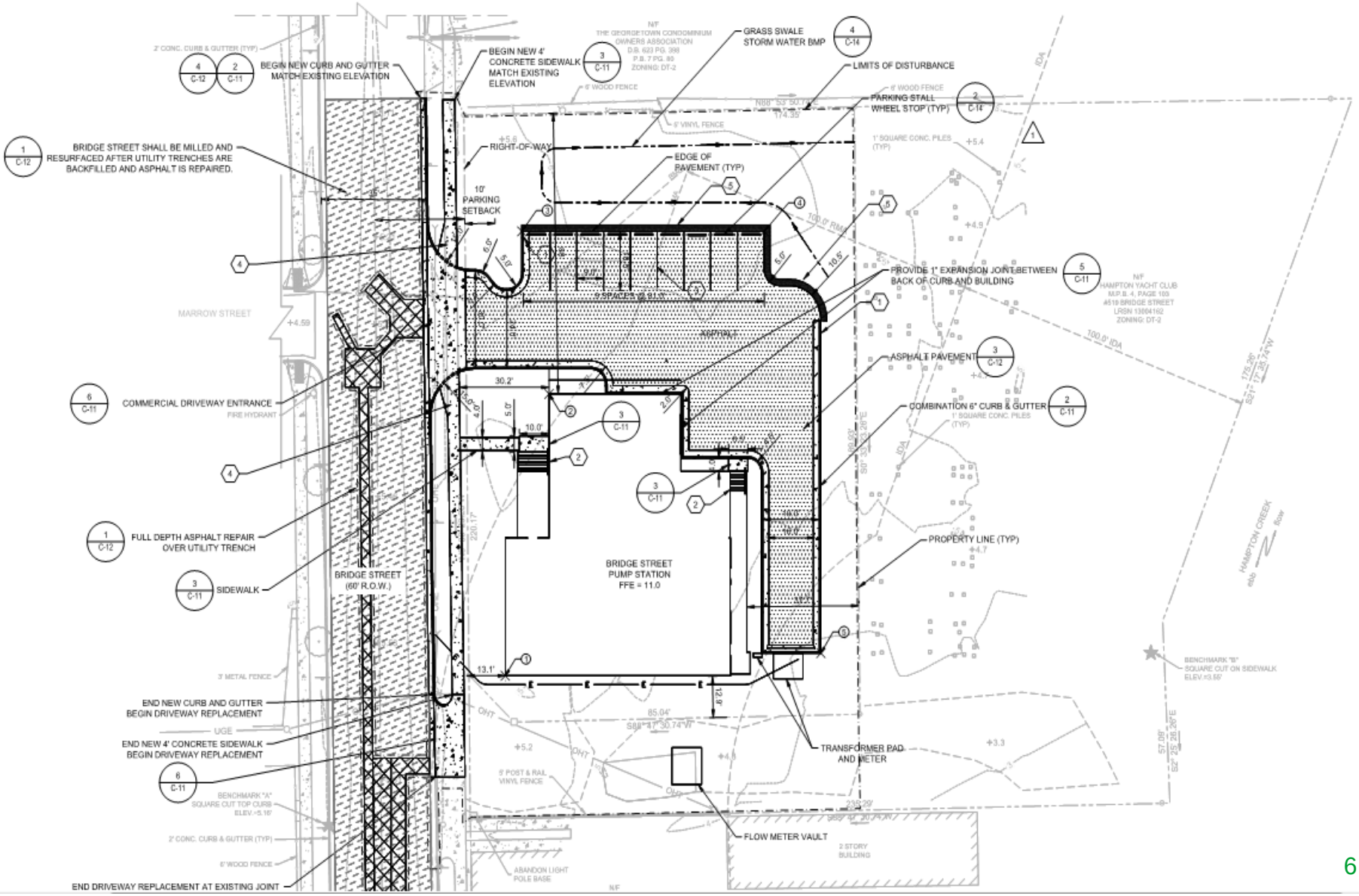
Bridge Street Pump Station

New Bridge Street PS

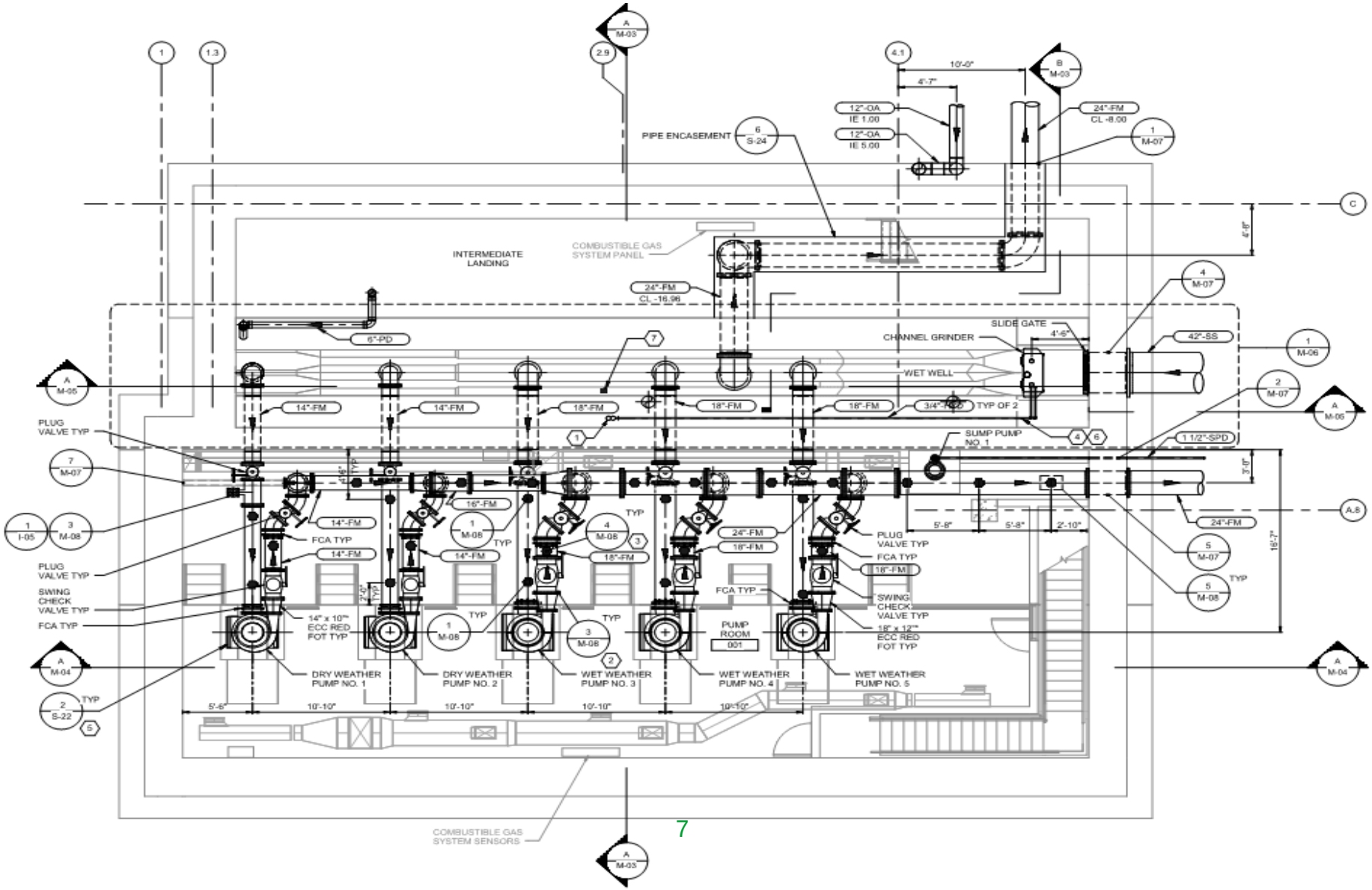
Bridge Street Pump Station

Bridge Street Pump Station

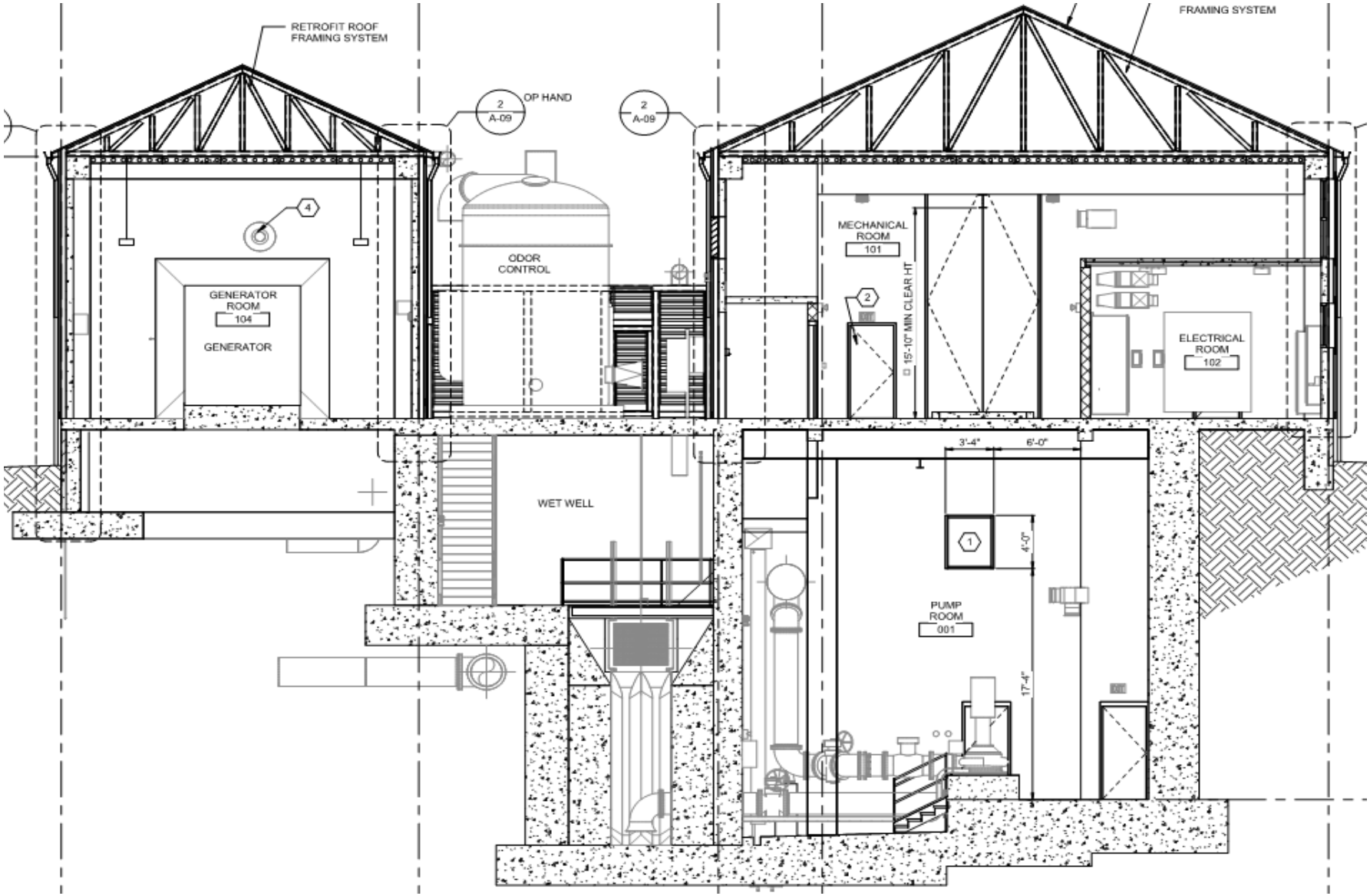
Bridge Street Pump Station



Bridge Street Pump Station



Bridge Street Pump Station



QUESTIONNAIRE

The undersigned guarantees the accuracy of all statements and answers herein contained. (Please print in ink.) Contractor shall provide answers in order on separate sheet except where fill one blank or yes/no checks suffice.

1. How many years has your firm been in business as a General Contractor?
   _____ years

2. List at least three (3) projects similar in nature to this project that you have completed. Provide project information addressing the qualifications identified in Article 3 of the Instructions to Bidders. For each project include:

   1) The original contract date and time.
   2) The final contract time.
   3) The original contract cost.
   4) The final contract cost.
   5) Name, address, phone number and contact for the Consulting Engineer or Registered Architect and Owner Representative involved with the project.

3. List projects presently under construction by your firm, dollar value of the contract, and the percent of completion.

4. Have you ever performed work for a public body such as the Hampton Roads Sanitation District previously? If yes, list the public body and name of the project for the three most recent projects. (If all such entities are listed under 2, this question need not be completed.)

   Yes _____
   No _____

5. Have you ever failed to complete work awarded to you? If yes, state where and explain why on separate sheet.

   Yes _____
   No _____

6. Do you plan to use subcontractors for any part of this work? If yes, give details.

   Yes _____
   No _____

7. What equipment do you own that is available for this work?

8. What equipment do you plan to rent or purchase for this work?

9. Give the name, address and telephone number of an individual who represents each of the following and who the Owner or Engineer may contact to investigate your financial responsibility:

   (a) Surety Name_____
   Contact Name_____
   Address _____
   _____
   Phone Number _____

Questionnaire within forty-eight (48) hours of the Bid opening. Additional information may be requested after the Questionnaires are received if, in the opinion of the Engineer, the information submitted is insufficient to complete the evaluation of the Bidder. Qualifications required from the Bidder shall be based on prior experience of the Corporation, Partnership or Limited Liability Company as identified in the completed Bid Form. Prior experience from other firms not listed in the completed Bid Form or experience from a sub-bidder shall not be accepted as experience for the Bidder.

4.02 In addition to the requirements of Article 4.01 above, the Bidder shall document specific experience in the construction of a minimum of three dry-pit style wastewater pump stations with at least one of the projects to include odor control equipment, back-up generators, variable frequency drives and driven sheet pile for earth retention system. Also, bidder or sub-bidder shall have direct experience with the successful installation of flow control/sewage bypass on at least three projects within the past ten years of similar complexity and field conditions. Referenced projects for flow control/sewage bypass shall have involved flow control/bypass pumping of flows greater than 5 MGD. If sub-bidder experience will be used by the bidder to demonstrate qualifications for flow control/bypass pumping, then bidder must have prior experience managing flow control / sewage bypass. The bidder shall submit specific evidence documenting the successful management of at least three flow control / sewage bypass projects. . Give project titles, Owner's and Engineer's names, addresses and telephone numbers, and project value. Attach additional pages to the QUESTIONNAIRE as necessary to provide this information.

A. Qualifications of Linestop Sub-Bidder:

1. The linestop sub-bidder shall have completed five (5) successful linestop installations for sanitary sewer force main systems and shall have a minimum of five (5) years documented, uninterrupted service with furnishing linestop equipment for sanitary sewer force mains on the type and size of pipe described. Provide detailed reference information including:

   a. Project name, location of the work, and start and completion dates.

   b. Description of project including equipment provided, size of pipe, and type of force main.

   c. Project owner contact information, including their contact name, address, phone and e-mail.

   d. General contractor name, their contact person, address, phone and e-mail.

2. The linestop sub-bidder shall have a minimum of two (2) linestop superintendents currently employed with their company. Each linestop superintendent shall have a minimum of three (3) years continuous employment with the linestop company and shall provide the following information:

   a. Names of a minimum of two (2) linestop superintendents currently employed with linestop sub-bidder, including number of years of employment with linestop sub-bidder's company.

3. Each linestop superintendent shall have completed three (3) successful linestop installations for sanitary sewer force main systems over the past three (3) years.

Questions?

HRSD COMMISSION MEETING MINUTES
February 29, 2016

ATTACHMENT #3

AGENDA ITEM 12. – Informational Items

a. Management Reports

(1) General Manager

(2) Engineering

(3) Finance

(4) Information Technology

(5) Operations

(6) Special Assistant for Compliance Assurance

(7) Talent Management

(8) Water Quality

(9) Report of Internal Audit Activities

b. Strategic Planning Metrics Summary

c. Effluent Summary

d. Air Summary

February 16, 2016

Re: General Manager's Report

Dear Commissioners:

Competitiveness seems to be part of our DNA. We want to be the best, the biggest, fastest, strongest…. We also seem to have a love-hate relationship with individuals and teams that go on long streaks of success. Those long streaks inevitably come to an end, creating an immediate sense of failure and disappointment. But after that initial pain has receded, we are left with the record of success and the legacy of attaining something no one else has ever achieved. It is that sense of accomplishment and pride that is ultimately appreciated and celebrated at the end of any streak of success.

In January, the Army Base Treatment Plant had their first permit exception in over 29 years. That was an amazing streak of perfection. The plant staff met tens of thousands of permit parameters during that time frame as they treated over 100 trillion gallons of wastewater and removed hundreds of millions of pounds of pollution. The plant underwent multiple construction projects and equipment replacements, including the current project that totally disrupted the entire plant operation for more than four years. Throughout it all, Army Base continued to meet every permit parameter.

The short duration pH exceedance that occurred in January stopped the streak of perfection. The exceedance did not threaten public health or the environment, but it did create the feeling of disappointment that accompanies the end of a long streak of success (and, frankly, every permit exception at HRSD).

HRSD has an incredible record of permit compliance and Army Base's record has exemplified our culture of compliance for more than 29 years. That streak is over, but a new streak has already begun--and who knows what we will be celebrating in 2045! The new nutrient removal capacity of the plant has already had a significant positive impact on the Elizabeth River, reducing Army Base's

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Commissioners: Vishnu K. Lakdawala, PhD, Chair • Frederick N. Elofson, CPA, Vice-Chair • Michael E. Glenn
Arthur C. Bredemeyer • Maurice P. Lynch, PhD • Stephen C. Rodriguez • Susan M. Rotkis • Willie Levenston, Jr.
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discharge of total nitrogen by nearly 300,000 pounds between 2014 and 2015, with the system only operating a portion of the year. I know you share my appreciation for all the men and women at the Army Base Treatment Plant (over the past 29 years) for setting the compliance bar so high for all of HRSD and the entire wastewater industry.

The attached monthly reports review activities throughout the month, with a few items highlighted below:

1. **Treatment, Compliance and System Operations:** With the exception of Army Base, all plants met permit requirements.

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

    a. A meeting to discuss preliminary work around affordability related to the Regional Wet Weather Management Plan (RWWMP)
    b. A meeting to discuss the prioritization factors to be used in the development of the RWWMP
    c. A meeting to review options related to the window and skylight coverings for 1434 Air Rail
    d. One new employee orientation session
    e. One employee length of service recognition breakfast
    f. The Senior Leadership Team annual retreat
    g. Several conference calls focused on public outreach for the Sustainable Water Recycling Initiative (SWRI)
    h. The video shoot for the Elizabeth River Project River Star Hall of Fame presentation
    i. A briefing and shadowing by an Old Dominion University (ODU) CIVIC Scholar that I am mentoring this semester

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

    a. Multiple calls and meetings with Surry County regarding their interest in becoming part of HRSD
    b. A meeting with the Middlesex County Administrator to visit a privately held treatment facility and discuss ongoing work to bring utilities to Deltaville

c. A meeting with the General Manager of the James City Service Authority (JCSA) to discuss issues effecting JCSA and HRSD
d. The credit surveillance visit of Fitch, which included a presentation and site visit to the Virginia Initiative Plant and the Norchester Avenue Pump Station
e. The credit surveillance visit of S&P, which included a presentation and site visit to the Virginia Initiative Plant and the Norchester Avenue Pump Station
f. The credit surveillance conference call with Moody's
g. The ODU CIVIC Mentor reception
h. The annual public meeting required by the Consent Decree
i. The quarterly briefing for the Consent Decree with US Environmental Protection Agency (EPA), Department of Justice (DOJ) and Virginia Department of Environmental Quality (DEQ)
j. Multiple calls with *The Virginian-Pilot* reporter working on the story about HRSD's SWRI
k. The Elizabeth River Project's River Star awards luncheon
l. A presentation about the SWRI to the Virginia Economic Development Authority
m. A two-day meeting with a joint committee (Water Environment Federation, Water Environment Research Foundation, National Association of Clean Water Agencies, WaterREUSE and EPA representatives) to develop a new national utility recognition program
n. A meeting with the Deputy Administrator of EPA, other senior EPA staff and the DEQ Director to discuss integrating the SWRI with our RWWMP obligations under the Consent Decree
o. A meeting with the senior staff of EPA Region III, DOJ and Virginia DEQ to discuss integrating the SWRI with our RWWMP obligations under the Consent Decree
p. A presentation to the Chesapeake Division of the Hampton Roads Chamber of Commerce to discuss service to the Dominion Boulevard corridor and the SWRI
q. A presentation to the Hampton Roads Planning District Commission Resiliency Committee regarding the SWRI potential impact on sea level rise

The SWRI continues to consume much of my time and energy. The comprehensive article in *The Virginian-Pilot* on January 31 was the culmination of multiple interviews and discussions with the reporter over more than a month. The success of the SWRI is dependent on our ability to get the right information out at the right time, building on established relationships, cultivating new allies and maintaining visibility in the community. This effort focuses much of my personal time externally, something I would not be able to do without such a great leadership team and motivated staff.

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth and the environment. **I look forward to seeing you on MONDAY, February 29, in Virginia Beach.**

Respectfully submitted,

Ted Henifin

Ted Henifin, P.E.
General Manager

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for January 2016

DATE: February 9, 2016

A. General

1. Capital Improvement Program (CIP) spending for the sixth month of Fiscal Year-2016 was $11.1 million, while the planned expenditure for the month was estimated at $13.7 million. There were no Water Quality Improvement Fund grant reimbursements for the month.

2. Efforts are underway to fill the two Engineering Department Project Manager positions now open due to recent promotions. Ms. Lauren Zuravnsky joined the Engineering Department in December, filling an earlier vacancy.

3. As part of the transition to the Enterprise Resource Planning system, the Engineering Department has implemented an electronic professional services and construction bidding system. We have successfully conducted three construction bids since implementing the new system. We have had few problems and have worked closely with the consulting and contracting community to provide training and answer questions as issues have arisen. We expect that the new electronic procurement process will expedite the selection of consultants and contractors and result in fewer problems, particularly as contractors provide electronic bids rather than hand delivering them in sealed envelopes.

B. Asset Management Division

1. Staff is looking into the potential to add new tools to the existing Computerized Maintenance Management System (CMMS). These tools include: improved data collection and visualization, advanced analysis and reporting and a mobile application providing a checklist capable of quickly entering data. Coordination with the Operations Department is underway to consider these new system features.

2. Staff has begun an effort to integrate the protective coatings, cathodic protection and corrosion control efforts. A single program is under consideration to address these issues in a more global method. The program would integrate both internal staffing skills and outside consultants

to provide a comprehensive system to assure that HRSD's assets are properly inspected, maintained and replaced when required.

C. Design & Construction Division

1. Construction efforts have begun on the Central Trunk Interceptor Force Main A&B Main Line Valve project. This effort will involve the placement of two isolation valves within the existing interceptor sewer located along Independence Boulevard in the City of Virginia Beach. Due to significant concerns with maintenance of traffic, the valve insertion locations were chosen to minimize traffic disruptions. We will install one valve and review the results of the effort prior to beginning work at the second location. These valves will allow HRSD to isolate the interceptor sewer system along Independence Boulevard in the case of a line break and also allow for the future diversion of flow.

2. Progress continues on the Virginia Initiative Treatment Plant Nutrient Reduction Improvement project. Construction efforts are ongoing and the project is on schedule. The first part of the project (Group 1) involves the nutrient reduction portion of the project. Ongoing work includes air piping for the versatile bioreactor, sluice gates for the secondary clarifier and effluent channel and electrical work needed for these facilities. The substantial completion date for this part of the project is February 2017. The second part of the project (Group 2) involves the construction of the plant peak capacity improvements. Ongoing work includes the foundation work for the preliminary treatment facility and equalization basin. The substantial completion date for this part of the project is December 2017. This is HRSD's largest single CIP project and the work will continue for the next three years. The project team is working well together and this effort is an example of good planning and communication.

D. Planning & Analysis Division

1. Since the approval to begin the second phase of the Aquifer Replenishment Study at the August Commission Meeting, staff has been involved in a number of stakeholder outreach efforts and internal meetings to plan for the bench scale pilot work. Internal efforts are focused on how to configure the pilot plant, sampling protocol, needed internal resources and external assistance. This initiative continues to excite staff and has created significant interest outside the organization.

2. Staff is assisting with a mobile application to support the Small Communities Division with preventative maintenance work and to coordinate responses to/from customers. This application will include a

geographic information system mapping tool to allow for spatial considerations and improve response time by staff. Testing of this new application is being coordinated with staff to confirm functionality and to verify that the application can run in a timely fashion in remote locations throughout the Middle Peninsula.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 4

   a. Staff made a presentation to the Hampton Roads Green Building Council on the design and construction of the Operations Center Building on January 13.

   b. Staff conducted an Open House for the Warwick to Boxley Boulevard Replacement Force Main project on January 19.

   c. Staff made a presentation on the Norchester Pump Station Replacement project to the Middletown Arch Civic League on January 21.

   d. Staff members were interviewed for the Elizabeth River Project video produced to recognize HRSD's selection for the 2016 Inside Business River Star Hall of Fame award.

2. Number of Community Partners: 3

   a. Hampton Roads Green Building Council

   b. Middletown Arch Civic League

   c. Elizabeth River Project

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Total Training Hours per Full Time Employee (39) - Current Month	Hours / #FTE	2.99
M-1.4b	Total Training Hours per Full Time Employee (39) - Cumulative Fiscal Year-to-Date	Hours / #FTE	21.60
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	3

Bruce W. Husselbee, P.E.

Bruce W. Husselbee, P.E.

TO: General Manager

FROM: Director of Finance

SUBJECT: Monthly Report for January 2016

DATE: February 10, 2016

A. General

1. Revenues and transfers continue to track higher than budgeted primarily due to slightly higher water consumption. Water consumption is above the budgeted amount but remains 3.4 percent below the three year average. Facility Charge revenue (income received from new connections) is tracking lower, which is likely due to slowing new development. Facility Charge revenue was 83 percent of budget at this point last year compared to 49 percent currently. Expenses and transfers continue to track lower than budgeted. Personnel Services is tracking lower relative to last year partially due to last year's retirement incentive. As anticipated, a number of tenured positions were vacated and have been filled by new hires coming in at lower salaries. Expenditures for major repairs and capital assets are also tracking lower than budget but we expect these items to meet their budgets by the fiscal year's end.

2. As noted in the January 2016 Commission presentation, staff is working on a large bond sale that is scheduled to price in mid-February and close on March 10. As part of the bond sale, staff met with Fitch and Standard & Poor's (S&P) in January and provided them with a tour of the Virginia Initiative Plant (VIP) and ongoing construction. HRSD's ratings were reaffirmed in both cases, which is great news.

B. Interim Financial Report

1. Operating Budget for the Period Ended January 31, 2016

	Amended Budget	Current YTD	Current YTD as % of Budget (58% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	$ 221,000,000	$ 133,529,340	60%	60%
Surcharge	2,000,000	1,257,919	63%	68%
Indirect Discharge	2,400,000	1,476,751	62%	67%
Norfolk Sludge	300,000	148,774	50%	42%
Fees	3,000,000	1,648,444	55%	62%
Municipal Assistance	1,300,000	711,981	55%	30%
Miscellaneous	750,000	400,309	53%	83%
Total Operating Revenue	230,750,000	139,173,518	60%	60%
Non Operating Revenues				
Facility Charge	6,000,000	2,958,960	49%	83%
Interest Income	1,400,000	879,007	63%	79%
Build America Bond Subsidy	2,400,000	1,212,434	51%	50%
Other	1,090,000	682,605	63%	38%
Total Non Operating Revenue	10,890,000	5,733,006	53%	70%
Total Revenues	241,640,000	144,906,524	60%	61%
Transfers from Reserves	5,063,984	2,953,990	58%	57%
Total Revenues and Transfers	**$ 246,703,984**	**$ 147,860,514**	**60%**	**61%**
Operating Expenses				
Personal Services	$ 53,040,035	$ 28,005,382	53%	55%
Fringe Benefits	24,395,846	12,343,597	51%	55%
Materials & Supplies	5,924,877	4,095,419	69%	51%
Transportation	1,385,278	655,299	47%	54%
Utilities	12,492,365	5,852,451	47%	46%
Chemical Purchases	9,078,868	4,279,233	47%	45%
Contractual Services	24,530,628	12,489,381	51%	51%
Major Repairs	9,135,316	2,620,693	29%	36%
Capital Assets	3,450,181	1,058,137	31%	25%
Miscellaneous Expense	2,505,084	1,200,836	48%	30%
Total Operating Expenses	145,938,478	72,600,428	50%	50%
Debt Service and Transfers				
Debt Service	59,622,000	34,040,592	57%	69%
Cost of Issuance Bonds	900,000	151,988	17%	63%
Transfer to CIP	39,983,506	23,323,712	58%	58%
Transfer to Risk management	260,000	151,668	58%	0%
Total Debt Service and Transfers	100,765,506	57,667,960	57%	65%
Total Expenses and Transfers	**$ 246,703,984**	**$ 130,268,388**	**53%**	**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. 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.

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, 2016

	General	Risk Management	Debt Service Reserve	Capital
Beginning of Period - July 1, 2015	$ 146,889,275	$ 2,480,500	$ 44,117,890	$ 22,550,555
Add: Current Year Sources of Funds				
Cash Receipts	140,020,902			
Capital Grants				11,640,661
Line of Credit				37,204,061
Bond Proceeds (includes interest)				3,221
Transfers In	33,150,819	130,000		53,142,572
Sources of Funds	173,171,721	130,000	-	101,990,515
Total Funds Available	$ 320,060,996	$ 2,610,500	$ 44,117,890	$ 124,541,070
Deduct: Current Year Uses of Funds				
Cash Disbursements	122,910,844			85,868,648
Transfers Out	53,272,572			33,150,819
Uses of Funds	176,183,416	-	-	119,019,467
End of Period - December 31, 2015	$ 143,877,580	$ 2,610,500	$ 44,117,890	$ 5,521,603

4. Capital Improvements Budget and Activity Summary for Active Projects the Period Ended January 31, 2016

Classification/ Treatment Service Area	Budget	Expenditures prior to June 30, 2015	Year to Date FY2016 Expenditures	Total Expenditures	Outstanding Encumbrances	Available Balance
Administration	$ 40,961,073	$ 32,680,220	$ 2,139,684	$ 34,819,904	$ 482,512	$ 5,658,657
Army Base	156,834,000	108,608,104	4,172,744	$ 112,780,848	3,833,624	40,219,528
Atlantic	94,616,147	27,303,169	4,752,329	$ 32,055,498	11,181,120	51,379,529
Boat Harbor	74,772,947	21,912,992	4,701,215	$ 26,614,207	7,405,357	40,753,383
Ches-Eliz	5,679,274	2,814,828	580,483	$ 3,395,311	2,136,406	147,557
James River	74,881,504	22,744,827	6,732,721	$ 29,477,548	14,003,836	31,400,120
Middle Peninsula	36,633,823	1,365,967	1,839,148	$ 3,205,115	5,809,227	27,619,481
Nansemond	67,069,012	11,117,562	8,124,113	$ 19,241,675	14,427,965	33,399,372
VIP	251,441,502	140,443,785	24,628,906	$ 165,072,691	72,932,256	13,436,555
Williamsburg	10,512,783	1,990,543	574,971	$ 2,565,514	7,206,749	740,520
York River	42,516,967	20,361,478	6,959,773	$ 27,321,251	11,669,573	3,526,143
General	197,077,972	119,099,544	9,568,939	$ 128,668,483	41,557,350	26,852,139
	$ 1,052,997,004	$ 510,443,019	$ 74,775,026	$ 585,218,045	$ 192,645,975	$ 275,132,984

5. Debt Management Overview

	Debt Outstanding ($000's)				
	Principal 12/31/15	Principal Payments	Line of Credit Draws	Principal 1/31/16	Jan Interest Payments
Fixed Rate					
Senior	$ 597,201	$ 2,385	$ -	$ 594,816	$ 5,301
Subordinate	66,958	40	-	66,918	11
Variable Rate					
Subordinate	25,000	-	-	25,000	-
Line of Credit	37,204	-	5,387	42,591	-
Total	$ 726,363	$ 2,425	$ 5,387	$ 729,325	$ 5,312

Series 2011 Variable Rate Interest Summary - Key Statistics of Comparable Bonds (Since October 2011)
Pricing Analysis as of 1/21/2016

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	0.26%	0.23%	0.04%
Average	0.09%	0.08%	0.01%
Minimum	0.01%	0.01%	0.00%
As of 1/21/2016	0.01%	0.01%	0.00%

6. Financial Performance Metrics for the Period Ended January 31, 2016

	Current YTD	Policy Minimum
Capital % Cash Funded	26%	15%
General Reserve as % of Operations	97%	75-100%
Risk Management Reserve as % of Projected Claims Costs	25%	25%

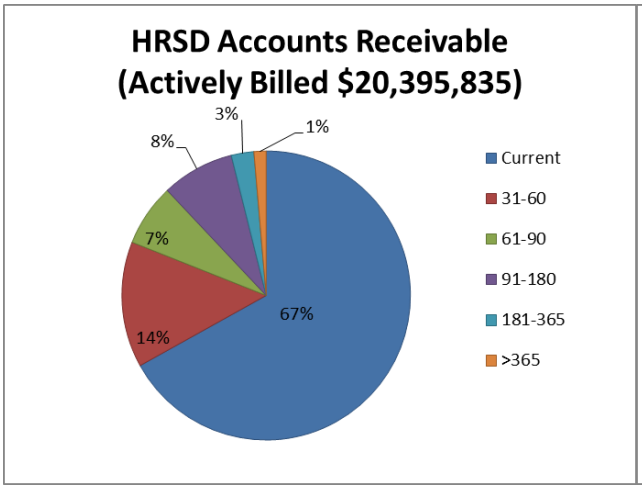
7. Summary of Billed Consumption

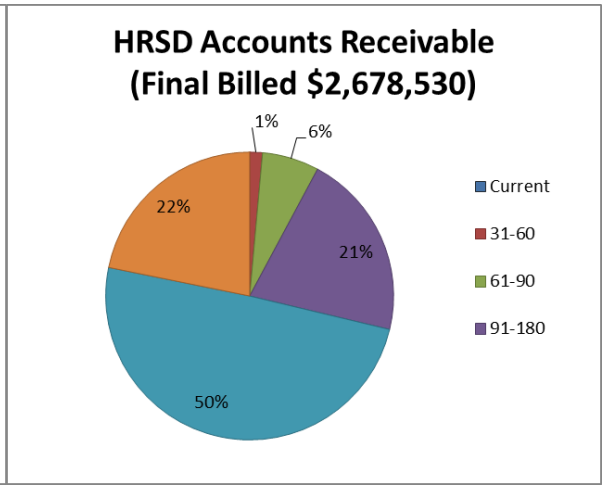
Summary of Billed Consumption (*ccf*)							
					% Difference		
Month	*Cumulative 3 Year Average*	*Cumulative 2015 Actual*	*2016 Cumulative Budget Estimate*	*2016 Cumulative Actual*	*From Budget*	*From 2015*	*From 3 Year Average*
July	4,871	4,798	4,452	4,819	8.2%	0.4%	-1.1%
Aug	10,201	9,517	8,904	9,783	9.9%	2.8%	-4.1%
Sept	14,879	14,128	13,356	14,290	7.0%	1.1%	-4.0%
Oct	19,759	19,005	17,808	18,976	6.6%	-0.2%	-4.0%
Nov	24,086	22,900	22,260	23,486	5.5%	2.6%	-2.5%
Dec	28,291	27,361	26,712	27,626	3.4%	1.0%	-2.4%
Jan	32,951	31,997	31,164	31,843	2.2%	-0.5%	-3.4%
Feb	37,417	35,413	35,616	-	N/A	N/A	N/A
March	41,660	40,813	40,068	-	N/A	N/A	N/A
Apr	45,900	45,287	44,520	-	N/A	N/A	N/A
May	50,273	49,601	48,972	-	N/A	N/A	N/A
June	54,952	54,058	53,424	-	N/A	N/A	N/A

C. Customer Care Center

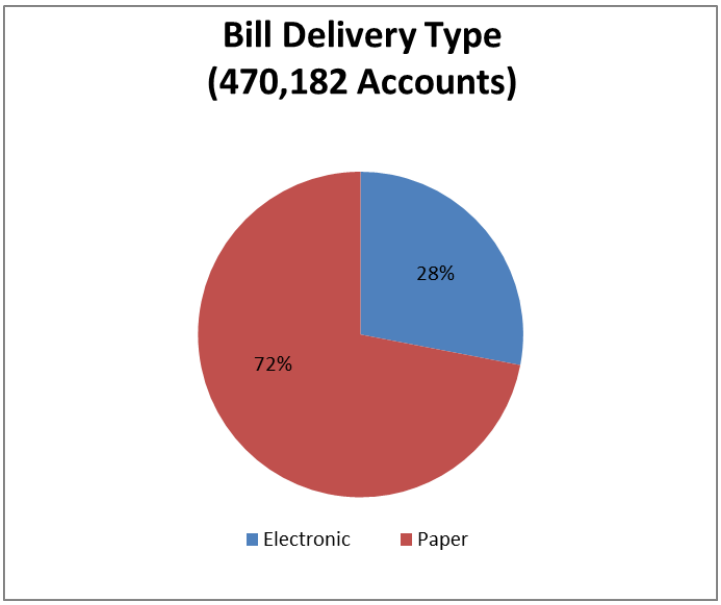
1. Accounts Receivable Overview

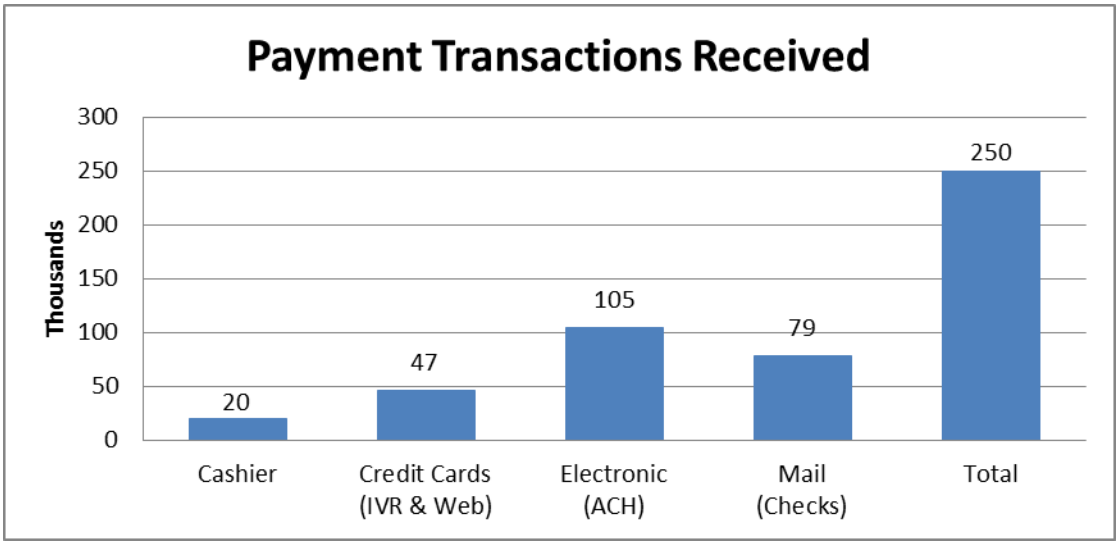
	HRSD	Juris	Total
Roll Forward			
December A/R Balance	$ 23,499,663	$ 26,002,712	$ 49,502,375
Billings	18,431,991	18,994,118	37,426,109
Payments	(19,344,192)	(19,030,149)	(38,374,341)
Delinquency Activity Fees	153,425	-	153,425
Late Payment Charges	88,014	25,515	113,529
Adjustments	367,174	(564,843)	(197,669)
Balances Written Off	(121,710)	(142,388)	(264,098)
January A/R Balance	**$ 23,074,365**	**$ 25,284,965**	**$ 48,359,330**

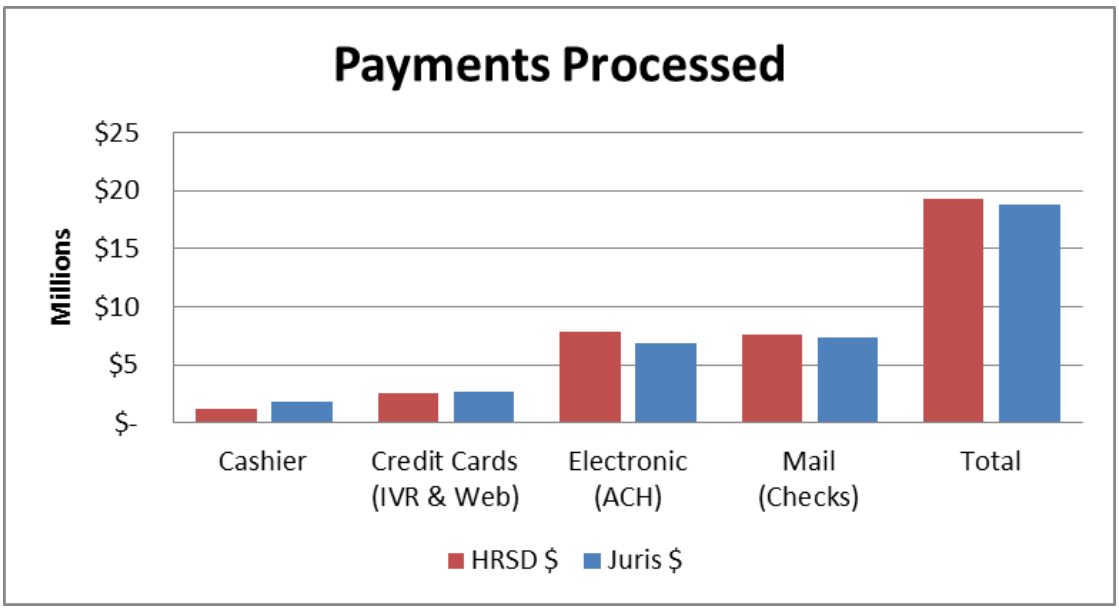


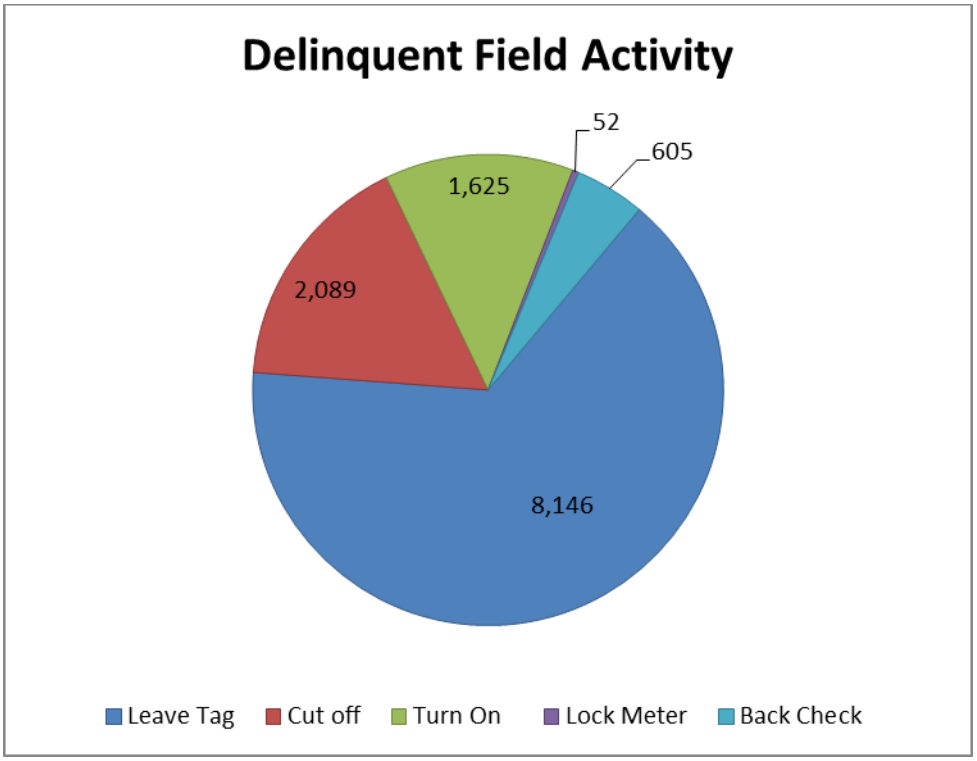


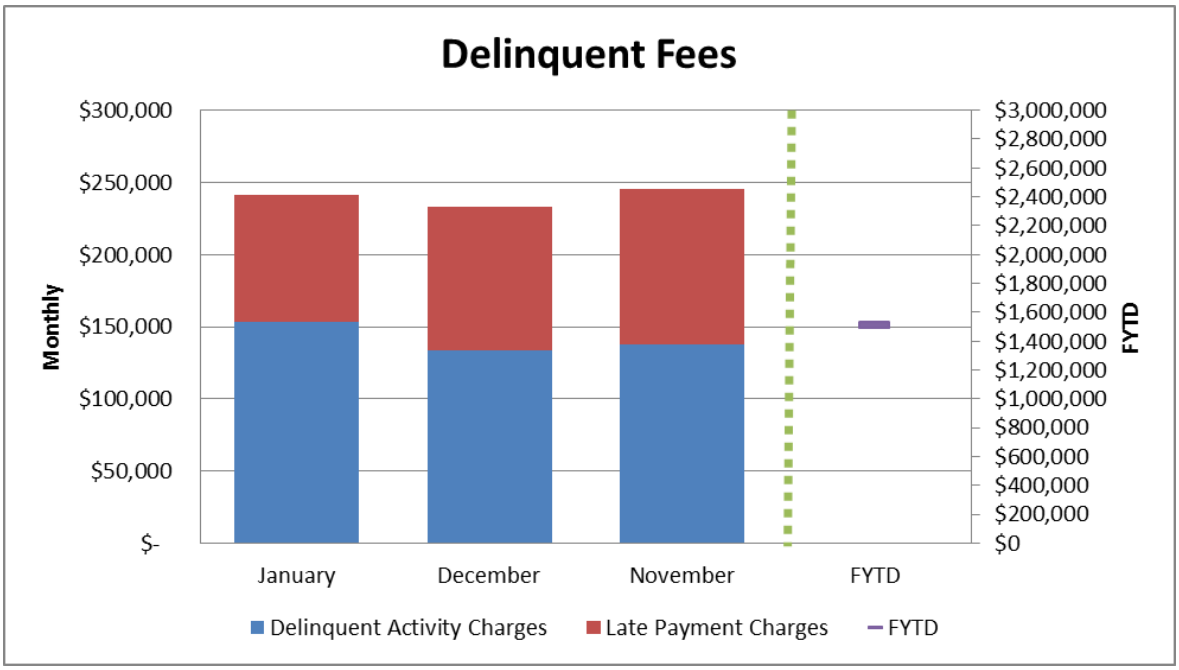
2. Customer Care Center Statistics for the Period Ended January 31, 2016








Delinquent Field Activity
52
605
1,625
2,089
8,146
Leave Tag
Cut off
Turn On
Lock Meter
Back Check


Delinquent Fees
Monthly
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$-
$3,000,000
$2,800,000
$2,600,000
$2,400,000
$2,200,000
$2,000,000
$1,800,000
$1,600,000
$1,400,000
$1,200,000
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$200,000
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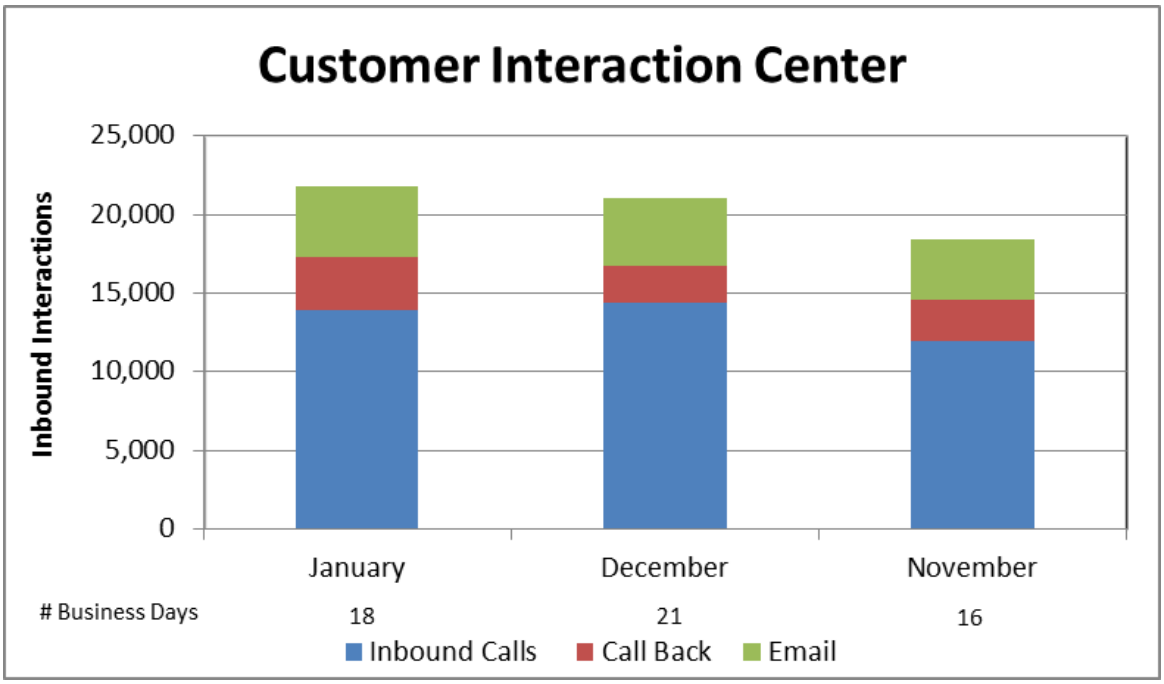
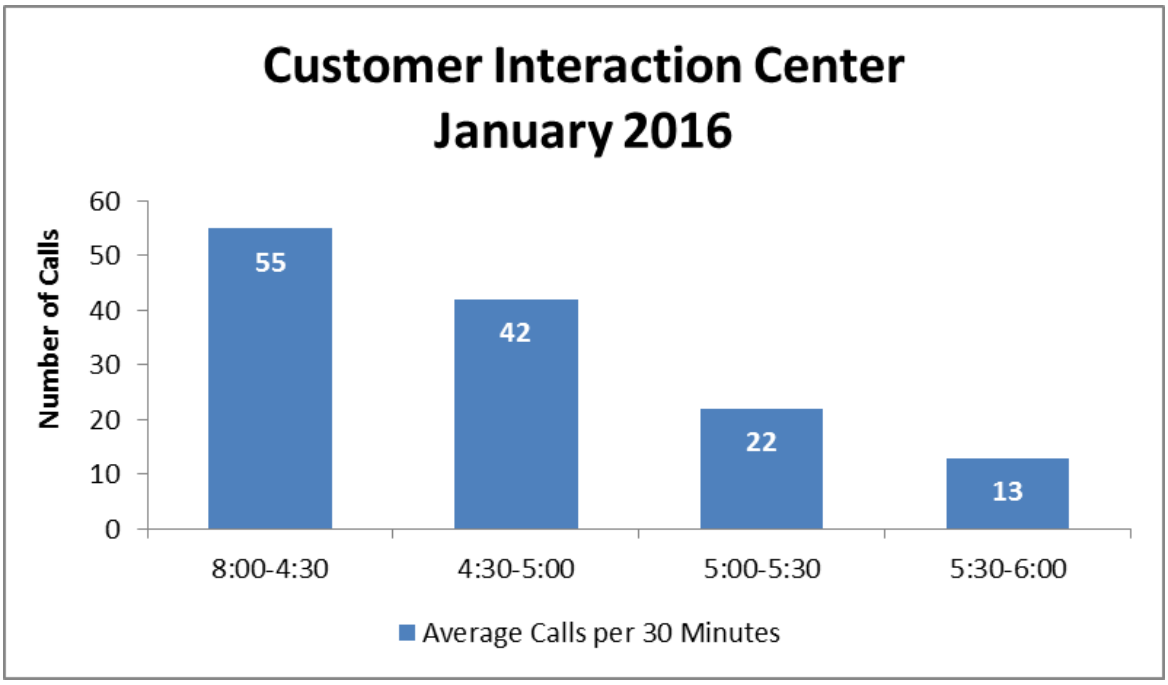
FYTD
January
December
November
FYTD
Delinquent Activity Charges
Late Payment Charges
FYTD





Customer Interaction Statistics	January	December	November
Calls Answered within 3 minutes	64%	73%	57%
Average Wait Time	4:06	3:10	4:24
Calls Abandoned	2,738	2,048	2,417

D. Procurement

1. Procurement Statistics

	Current Period	FYTD
Bid Cost Savings	$ 102,919	$ 1,968,987
Negotiated Cost Savings	$ 7,725	$ 166,070
Salvage Revenues	$ 1,006	$ 26,901
Corporate VISA Card - Estimated Rebate	$ 12,961	$ 117,963

Average Lead Time (Receipt of Requisition to Award)

Solicitation Types	Requisition Amounts	Dec-15		Jan-16	
		No. Days	Count	No. Days	Count
RFQs	<$5,000	11.40	10	5.50	4
	$5,000 - $10,000	21.67	3	40.08	12
	$10,000 - $50,000	50.21	14	38.00	4
IFBs	$50,000 - $100,000	129.00	1	49.33	3
IFBs/RFPs	>$100,000	119.50	2	73.00	1

Requisition Volume Comparison

Requisition Amounts	7/1/2014 - 6/30/2015 Requisitions	7/1/2015 - 1/31/2016 Requisitions	Percent Comparison of Past Year
<$5,000	198	109	55%
$5,000 – $10,000	69	32	46%
$10,000 – $50,000	252	144	57%
$50,000 – $100,000	64	31	48%
>$100,000	99	43	43%
Total	**682**	**359**	**53%**

2. Some of the more formal technical competitive bid solicitations for the month included:

   a. Concrete and Structural Repairs at the Virginia Initiative Plant
   b. Roller Assembly Replacements in Digesters Number One and Two for Support Systems
   c. Cooling Air Exhaust Piping System for the Boat Harbor Treatment Plant
   d. Structural Repairs for Tanks Number One and Two at the Urbanna Treatment Plant

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Community Partners: 0

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Training During Work Hours Per Full Time Employee (99) – Current Month	Hours / #FTE	5.68
M-1.4b	Total Training During Work Hours Per Full Time Employee (99) – Cumulative Fiscal Year-to-Date	Hours / #FTE	27.73
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	103%
	General Reserves	Percentage of Operating Budget less Depreciation	97%
	Accounts Receivable (HRSD)	Dollars	$23,074,365
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	21%

Respectfully,

Jay Bernas

Jay Bernas, P.E.
Director of Finance

TO: General Manager

FROM: Acting Director of Information Technology (IT)

SUBJECT: Information Technology Department Report for January 2016

DATE: February 10, 2016

A. General

1. The System Engineering group is currently working towards configuring the replacement router and switches for all HRSD treatment plants.

2. The Army Base Treatment Plant StackVision server has been successfully upgraded. Users are now able to replace older incinerator equipment and have the ability to monitor more effectively.

3. Systems Engineering staff were able to perform a migration of the storage arrays to provide a larger storage pool to meet HRSD's needs.

4. The Help Desk was able to roll out 19 new laptops to Water Quality staff to facilitate work in the field.

5. New EMC array storage is currently being configured to replace older hardware used to store all of HRSD's CCTV data. This will help HRSD staff meet regulatory mandates.

B. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0

2. Number of Community Partners: 0

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Training During Work Hours Per Full Time Employee (46) – Current Month	Total Training Hours / # FTE	0.65
M-1.4b	Total Training During Work Hours Per Full Time Employee (46) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	19.41
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,
Clayton R. Wise

TO: General Manager

FROM: Director of Operations

SUBJECT: Operations Report for January 2016

DATE: February 9, 2016

A. Summary

With one exception at the Army Base Treatment Plant, all treatment plants met all Virginia Pollutant Discharge Elimination System (VPDES) permit requirements. The entire HRSD system experienced high flows and tides during the month.

B. Interceptor Systems

1. North Shore Interceptor Systems (NS) had three Sanitary Sewer Overflows (SSOs) during the month due to rain and snow coupled with significantly elevated tidal cycles from Winter Storm Jonas (Jonas). We reported spills of 14,250 gallons at Bay Shore Pump Station, 76,375 gallons from the manhole at King Street and Rudd Lane and an unknown quantity at the Bridge Street Pump Station.

2. South Shore Interceptor Systems (SS) had two SSOs and one odor complaint for the month of January.

   One SSO was due to a force main leak on Great Neck Road near the intersection of Virginia Beach Boulevard. Upon investigation it was determined that the area of the pipe near the leak showed signs of external corrosion. The estimated volume of the spill was 2,250 gallons. Heavy rainfall from Jonas caused an overflow of an unknown quantity at the Chesapeake Boulevard Pump Station. There was one report of an odor near the Norchester Pump Station, which is currently under construction. SS is working with the Technical Services Division to alleviate the problem.

C. Major Treatment Plant Operations

1. The Army Base Treatment Plant (AB) experienced a final effluent pH permit exception. The event causing the pH depression was due to an apparent sudden drop in alkalinity. Operators immediately responded by increasing the caustic dose addition rate. However, because of the long tank detention time and the magnitude of the event, several hours were required

to see the impact of the increased caustic addition rate on final effluent pH. It is important to note that AB is using temporary caustic addition facilities while the permanent caustic facilities are still under construction. During the event, the first anoxic denitrification zone of the five-stage Bardenpho process failed to perform adequately. The first anoxic zone recovers alkalinity. Denitrification performance and process alkalinity returned to normal after the event.

AB had achieved perfect compliance with its VPDES permit limits for 29 consecutive years prior to this event, a record unmatched in the United States. While the AB staff is disappointed at the recent event, particularly given the fact that we are finally near the end of a long and difficult construction program, we remain proud of the accomplishments of the AB treatment team. Their achievements and commitment to water quality and the environment are extraordinary.

AB conducted stack testing for the new Maximum Achievable Control Technology (MACT) 129 air permit regulations, which become effective March 21, 2016. All tested areas passed with the exception of the particulate removal and hydrogen chloride (HCL) parameter. The particulate exception was caused by an equipment malfunction that has since been corrected. Staff believes that the equipment repair coupled with the additional use of caustic in the incineration process will result in a HCL output within permit requirements.
A second round of stack testing is scheduled for February.

2. At Atlantic Treatment Plant (ATP), an 8-inch non-potable water (NPW) line froze and cracked because of the cold weather in the middle of the month. Due to the size of the NPW line and its depth, the plant staff requested the help of SS. Within 24 hours, repairs were completed and the NPW line was returned to service.

   A digester overflowed due to a stuck feed valve coupled with a faulty level indicator. To assist with this large spill, ATP again requested the help of SS. Within an hour, two Vacon trucks arrived on the plant site, making the cleanup much easier for the plant staff.

   Cummins performed alternator preventive maintenance activities this month on all five generators.

3. Treatment for the month was good at Boat Harbor Treatment Plant (BH). Despite cooler wastewater temperatures, total nitrogen in the final effluent averaged 10.82 mg/L. The Ammonia vs. Nitrate/Nitrite Program continued to perform very well. Biological Phosphorus removal was excellent,

averaging 0.32 mg/L. Unfortunately, the plant lost the ability to nitrify at the end of the month because of the heavy wet weather. Due to the cold weather, it is unlikely that BH will be able to restart the nitrification process until spring.

On January 23, the plant experienced a significant furnace scrubber water spill inside the furnace building due to an overflowing scrubber drain line. Although the overflow was contained inside the furnace building, BH had to use the bypass stack for one hour and 20 minutes because the induced draft fan was flooded. The incident occurred when an operator accidently sent the furnace side-stream flow to the plant headworks instead of aeration tank #3. At the time, the valve to the receiving wet well was closed, and the operator failed to open the valve to the headworks causing the 1,000 gallons per minute of flow to back up in the scrubber drain line.

4. Chesapeake-Elizabeth Treatment Plant (CE) experienced very high storm infiltration and inflow along with extremely high concentrations of low dissolved oxygen filaments in the mixed liquor. This resulted in high final effluent Total Suspended Solids (TSS) values for two days; however, Operators adjusted clarifier flows and fed polymer to keep the final effluent TSS values within permit limits.

   Staff completed instrumentation controls systems hardware and software improvements for MACT 129 compliance for both incinerators.

5. Low raw influent temperatures and a pH probe failure at the ANITA-Mox centrate side-stream treatment process resulted in higher than average Final Effluent Total Nitrogen (TN) values of about nine mg/L at James River Treatment Plant (JR). JR staff continued replacing and overhauling forty-year-old pumps and valves on the #3 return activated solids manifold. Staff also rehabilitated non-potable water yard hydrants and replaced worn discharge check valves on blowers supplying air to the Integrated Fixed Film Activated Solids Tanks.

6. Staff completed final testing and validation of the Environmental Data Management System (EDMS) at the Nansemond Treatment Plant (NTP) for plant operational data management, which is scheduled to go live during the week of February 8. The EDMS is intended to replace the Excel based Daily Plant Operating Reports (DPORs) for data recording and transfer to the laboratory Sample Manager System and improve data consistency, integrity and security. The project will first be implemented at NTP to determine its effectiveness and supportability before expanding to other treatment plants.

7. The Virginia Initiative Plant (VIP) also conducted stack testing for the new MACT 129 air permit regulations. All parameters were within range with the exception of Cadmium (Cd), which was slightly higher than the limit. A second round of stack testing is scheduled for February with improved incinerator off-gas particulate removal to facilitate lower Cd levels.

   Final effluent TN and Total Phosphorus (TP) values, which were high last month, returned to normal levels of 9.9 mg/L and 0.92 mg/L respectively.

8. Williamsburg Treatment Plant's (WTP) treatment was excellent this month, with the average Final Effluent TN and TP averaging 5.45 mg/L and 0.39 mg/L respectively. Staff installed mechanical components on the new fats, oils and grease unloading station. The main drive on #3 centrifuge failed; staff is taking steps with the contractor to make repairs.

9. York River Treatment Plant (YR) daily plant influent flows averaged 14.4 million gallons per day, which exceeded 95 percent of its design flow. Elevated flows can be attributed to the combination of high tides, over 2.5 inches of rain and approximately the same amount of snow. The final effluent nitrogen concentration averaged about 6.7 mg/L. The Chemical Facility Improvement Project is progressing, with coatings complete and the new caustic tank in place, as is the Final Effluent Pumping Improvement Project, with the new pump passing the five-day operational test.

D. <u>Small Communities</u>

Small Communities Division (SCD) experienced one spill in the month of January at the West Point Treatment Plant (WP) during regular cleaning of the contact tank. The pump that staff was using to remove NPW from the contact tank drew in air, which caused it to lose its prime and the discharge line to jump out of the diversion pond and into a forested area behind it. The pump discharged 850 gallons of NPW; staff applied lime to the affected area. During future operations, staff will secure the discharge line prior to pumping-down the contact tanks. Work continues on the Urbanna Treatment Plant rehabilitation project and WP Chemical Facilities Building.

E. <u>Support Systems</u>

Automotive staff coordinated the repair and upgrade of the Pine Tree Pump Station (PS) generator and completed the priority repair of the fuel tank monitoring system at Lee Hall PS. Automotive staff also installed a propane heater and three propane tanks at the NTP. The Facility Maintenance (FM) Superintendent continues to work with Guernsey Tingle Architects and two other vendors to obtain installation costs for blinds for select windows at the SS

Operations Center. The Carpentry Shop staff performed annual metal roof inspections at the SS Operations Complex, built and installed cabinets for the Electrical and Instrumentation (E & I) van #456, and accomplished many other projects. The Machine Shop completed eight projects, including producing two NPW shafts for WTP and various drive and couple shafts. The Machine Shop staff also rebuilt a Nitrified Recycle pump for NTP and began rebuilding the pump at NS's #1 Williamsburg PS. A contractor completed replacing the remaining NS and SS PS roofs. Rehabilitation of the concrete floors of AB's primary clarifiers continues. Primary clarifier tank #3 is complete. Contract work has begun on the floors of clarifier tank #2. Phase II of the NTP Triple A/aeration Tanks project (coating of tanks #5 and #6) continues.

F. Electrical and Energy Management

1. A collapsed duct bank damaged electrical cables feeding two electrical panels located on top of the aeration tanks at the CE. The panels supplied power for receptacles, lights, pumps and several probes used for sampling. The collapsed underground conduit could not be reused. The Project Team installed temporary conduits and feeders; a permanent installation will be designed and installed in February.

2. After losing power to Bainbridge Boulevard PS, the Project Team found a problem with the PS utility feeder. Staff called Dominion Virginia Power (DVP). DVP replaced a fuse and identified an intermittent problem with the utility cable. The south shore Electrical Manager is working with DVP to replace the defective cable and fully restore utility power to the PS.

G. Water Technology and Research

Highlighted Project: The Chesapeake-Elizabeth Biological Nutrient Removal pilot facility continues to operate with several related objectives focused on the development and optimization of intensified (small tanks/footprint) and low energy/chemical nutrient removal processes. The high rate activated sludge (HRAS) A-stage process is operated at a hydraulic retention time (HRT) of 30 minutes, solids retention time (SRT) between 0.2-1.0 day and dissolved oxygen (DO) concentration <1 mg/L, resulting in minimal particulate (pCOD) and colloidal (cCOD) carbon oxidation which can be captured and directed to an energy recovery system. Extracellular polymeric substances (EPS) assist in the formation of activated sludge flocs (bioflocculation) and absorbing pCOD and cCOD resulting in lower carbon mineralization. However, there is limited literature on the effect of SRT <1d on EPS production. The objective of current A-stage work is to evaluate a range of SRTs for optimized bioflocculation and settleability based on EPS production and intracellular carbon storage. This will lead into subsequent consideration of a high-rate contact-stabilization process, in

an effort to shunt more COD to the waste activated solids stream by maximizing intracellular storage. This is a modern take on a very well known and tested treatment process. Three small-scale pilot anaerobic digesters are also being constructed to test gas production and volatile solids production from these operating scenarios. This testing is relevant for an A/B process upgrade that is being considered for York River Treatment Plant.

H. Strategic Measurement Data

1. Education and Outreach Events: 7

   a. Atlantic Treatment Plant staff gave a presentation to "Mentoring Young Scientist Association" students at the Virginia Beach Marine Science Museum
   b. Chesapeake-Elizabeth Treatment Plant held a meeting to plan a spring floating wetland island project with Bayside Middle School and Lynnhaven River Now
   c. NS Electrical Manager spoke at the new Engineering Club formed at Hines Middle School in Newport News
   d. NS Electrical Manager attended an end of year campaign meeting with the United Way Team
   e. SCD Systems Manager and Superintendent conducted a tour at Central Middlesex Treatment Plant for Christ Church School 10th and 11th graders
   f. York River Treatment Plant provided a tour for David Mutombo with Hatch Mott MacDonald Engineers
   g. Charles Bott gave a Sustainable Water Recycling initiative podium presentation as part of a potable reuse workshop

2. Community Partners: 10

   a. Virginia Institute of Marine Science
   b. Old Dominion University
   c. Virginia Polytechnic Institute and State University
   d. Chesapeake Bay Foundation – Oyster Restoration
   e. Mentoring Young Scientist Association
   f. Bayside Middle School
   g. Lynnhaven River Now
   h. Hines Middle School
   i. United Way
   j. Christ Church School

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (503) – Current Month-	Hours / FTE	2.21
M-1.4b	Total Training During Work Hours per FTE (503) – Cumulative Year-to-Date	Hours / FTE	23.14
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	32,514
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	40.8%
M-2.3c	Planned Maintenance-Corrective Maintenance	% of Total Maintenance Hours	32.1%
M-2.3d	Planned Maintenance-Projects	% of Total Maintenance Hours	27.1%
M- 4.1a	Energy Use: Treatment ***reported for December 2015**	kWh/MG	2,294
M-4.1b	Energy Use: Pump Stations ***reported for December 2015**	kWh/MG	145
M-4.1c	Energy Use: Office Building ***reported for December 2015**	kWh/MG	87
M-5.2	Educational and Outreach Events	Number	7
M-5.3	Number of Community Partners	Number	10

Respectfully submitted,

Steve de Mik
Director of Operations

TO: General Manager

FROM: Special Assistant for Compliance Assurance

SUBJECT: Monthly Report for January 2016

DATE: February 5, 2016

A. General

HRSD continues to implement the hybrid regionalized approach to the Regional Wet Weather Management Plan (RWWMP) with the next major Consent Decree milestone, the submittal of the Alternatives Analysis Report, scheduled for August 1, 2016.

A Quarterly Briefing meeting with the United States Environmental Protection Agency (EPA) and Virginia Department of Environmental Quality was held on **January 19** in Philadelphia to brief the agency on the overall program progress and discuss the approach for the RWWMP.

B. Submittals Completed in January 2016 – Quarterly briefing with the EPA/DEQ on **January 19** and Annual Public Meeting on **January 26**.

C. Activities

1. **Phase 6 – Rehabilitation Plan**. A limited amount of Prompt Repair construction activities occurred in January. Construction began for the gravity sewer repair work at 13th Street (SR-052) in West Point.

   A tool to track Rehab Action Plan projects (and Interim System Improvement projects) using ArcGIS Online has been developed and is being reviewed.

2. **Phase 7 – Regional Wet Weather Management Plan (RWWMP)**. HRSD has initiated an Integrated Planning effort that will evaluate the Sustainable Water Recycling proposal as a component of the RWWMP. HRSD staff met with EPA Region 3 staff on **January 19** to have preliminary discussions on the Integrated Planning approach.

   Capacity evaluation was underway using the Regional Hydraulic Model (RHM) and Locality Hydraulic Models (LHMs) as part of the RWWMP. Technical coordination meetings were held on **January 14 and 28**.

Operations and Engineering staff were briefed on RHM and RWWMP progress, including preliminary results of the capacity evaluation, on **January 25**.

The Infiltration and Inflow (I/I) Reduction Program results have been provided for the RHM and alternatives analysis. Ongoing efforts include documentation of the program development framework and individual catchment reports.

Work also continued on three rehabilitation pilot projects to be used to validate the assumptions and criteria used in I/I reduction planning. Two of the three projects are substantially complete and post-rehabilitation flow monitoring has begun. The third pilot should be substantially complete in February.

3. **Phase 8 – EPA Consent Decree Services.** HRSD continues to share information with the localities through the regional SharePoint site and flow, pressure and rainfall data portal.

   HRSD held their annual EPA Consent Decree Information Meeting on **January 26**. During this meeting, HRSD presented background and progress information on the Consent Decree and development of the RWWMP to attending members of the public and Locality partners.

   Development of the annual update to the Sanitary Sewer Overflow (SSO) Response Plan is underway.

4. **Phase 9 – Supplemental Services.** A monthly compliance program meeting was held on **January 6** to review the RWWMP program with HRSD staff.

   Components of the Management, Operations and Maintenance (MOM) Program are underway including the Hydrogen Sulfide (H2S) Monitoring Program and implementation of MOM programs for the Small Communities Division (SCD). Work has started on a MOM update manual for use on the next major MOM update expected in 2018.

   The Flow, Pressure and Rainfall (FPR) monitoring program continued in January with data collection and analysis being performed as part of the MOM Program.

Field work for Phase II of the Force Main Condition Assessment (FMCA) Program remained on hold in January, however, it is planned to begin work again in February.

Field work for Phase II of the Gravity Sewer Inspection Program remained on hold in January, with expectation to resume work in February.

A draft Condition Assessment Annual Report for FY-2015 was completed in January.

D. Next Submittals

Semi-Annual Report – May 1, 2016

E. Program Budget Status

The overall program budget is **$128,093,142**, excluding the Master Metering Program. A summary of appropriations and expenses is attached.

F. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1

   a. Annual Regional Wet Weather Plan Public Meeting

2. Number of Community Partners: 0

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Total Training Hours Per Full Time Employee (1) – Current Month	Total Training Hours / # FTE	8
M-1.4b	Total Training Hours Per Full Time Employee (1) – Cumulative Fiscal Year to Date	Total Training Hours / # FTE	67
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0

Respectfully submitted,

Phil Hubbard, P.E.

Attachments: Consent Order State & EPA Expenditures

Consent Order State & EPA Expenditures

	Total Appropriation	January 2016 Expenditures	Available Balance
Regional Consent Order and Other Consent Order Requirements			
Regional Hydraulic Model	101,254,812	90,580,716	10,674,096
Manhole Rehab/Replacement Phase I & North Shore Siphon Chamber	2,834,000	203,063	2,630,937
Pump Station Wet Well Rehabilitation Phase I	2,890,000	284,520	2,605,480
Locality System Monitoring and Condition Assessment	14,146,000	9,772,877	4,373,123
Locality Monitoring Unit Price	2,300,000	216,893	2,083,107
Locality Monitoring Design Build Pilot	1,626,330	388,526	1,237,804
Locality Monitoring Design Bid Build Pilot	2,482,000	262,927	2,219,073
West Point Pump Station 3 - Gravity System Repairs	560,000	35,507	524,493
Subtotal - In progress	128,093,142	101,745,029	26,348,113

Completed Work

Regional Consent Order and Other Consent Order Requirements	(Included in subtotal above)
Master Metering Program III	2,005,140
Master Metering Program IV	13,628,635
Total	117,378,804

TO: General Manager

FROM: Director of Talent Management

SUBJECT: Monthly Report for January 2016

DATE: February 10, 2016

A. Human Resources

1. Recruitment Summary

New Recruitment Campaigns	11
Job Offers Accepted	
Internal Selections	2
External Selections	5
Internal Applications	60
External Applications	113
Average Days to Fill Position	64

2. Enterprise Resource Planning (ERP)

a. The core team worked to finalize Post-Implementation punch list items for the final month of AST consulting. Activities included testing and validation of Business Intelligence reports.

b. System changes were initiated to implement approved changes to part-time employment categories and benefits.

c. The core team worked on setup, configuration and testing to meet Affordable Care Act reporting requirements within ERP. Due to incomplete standard out-of-the-box functionality for automated generation of 2015 IRS 1095C forms, the core team and HR and Accounting staff worked to compile and validate data, and print and distribute forms to eligible HRSD employees by January 31.

d. File information was completed for transfer of Health Savings Account administrative services.

3. Benefits and Compensation

a. The HRSD Benefits Survey team met to finalize an employee survey regarding new and existing benefits.

b. The transition process to replace the administrative services provider for employee Health Savings Accounts and transfer funds to the new provider was completed. Overall, the transition was successful due to HRSD staff's extensive efforts with the benefits consultant and the previous and new vendors to plan and resolve issues.

c. Phase II of a multi-phase compensation study progressed. A draft report and data were provided by the consultant for review.

d. Compensation information was provided to Cape Fear Public Utility Authority for an Executive Level Salary and Benefits survey.

e. The pre-proposal conference was held to kick off the Request for Proposal process for Employee Assistance Program services.

2. Wellness

a. Participation Activities

Year 3 Participation Activities	**Unit**	**January 2016**	**Year to Date (March – January 2016)**
Biometric Screenings	Number	20	166
Preventive Health Exams	Number	9	201
Preventive Health Assessments	Number	67	469
Coaching Calls	Number	22	81
On-Line Health Improvement Programs	Number	672	3550
Web-MD Online Health Tracking	Number	332	2065
Challenges Completed	Number	0	88
Fit-Bit Promotion	Number	4	112

b. Fifteen on-site wellness presentations, *Making Fitness Work in Any Setting* were held.

c. On-site biometric screenings for all work centers were initiated and will be completed by the end of February.

d. The first quarterly wellness newsletter was sent to employees and spouses.

3. Workers Compensation

Five new cases were opened with 16 cases remaining active.

4. Employee Relations

a. HR staff continued to partner and meet with work center supervisors to review issues, provide guidance and clarify policies. HR Manual revisions were completed and posted including clarifications to bonus pay policies and incorporation of HRSD's Ethics policy.

b. Staff met with the new Chief of Planning and Analysis to provide information on policies, procedures and training resources.

5. General

a. Talent Management met to begin discussing issues identified during the Annual Planning Day. Cross-functional workgroups were formed to address communication and collaboration; Web-Center implementation; training delivery methods and resources; and job shadowing/cross training.

b. Staff attended the following training:

(1) Conflict Management Workshop
(2) Emotional Intelligence Workshop
(3) IRS Affordable Care Act Reporting Webinar

<u>Organization Development and Training</u>

1. Training

a. The first Conflict Management workshop was held. The class filled to maximum capacity within two hours. As a result, a second workshop was added to the 2016 schedule.

b. Training classes are being entered into the ERP Learning Management system. Functionality was tested and successfully documented for Conflict Management and third quarter Apprenticeship class enrollments. Several issues were identified and escalated to the Business Analyst for resolution.

c. A new HRSD team was formed and met to explore innovative methods to deliver HRSD training online to provide HRSD employees access to learning opportunities for a variety of topics.

2. Apprenticeship Program

   a. Curriculum re-design and enhancements are underway. A meeting with an instructional designer is planned with the goal to transition applicable classes into an online learning environment.

   b. Based on the recommendation of the Apprenticeship Chair, course offerings are being expanded to create a new class, *Integrated Operations*, to include wastewater treatment theory and practical operations as demonstrated by the Operations Challenge Team.

   c. The Apprenticeship Committee met with Apprenticeship Program work center representatives to review feedback, identify improvements and address issues including implementation of online courses, class cancellation and inclement weather procedures, and grade and attendance policies.

3. Quality

   The quarterly facilitator meeting was held to kick off the New Year. Several new facilitators are on board and engaged to begin contributing to HRSD's Quality Program.

C. <u>Safety</u>

1. HRSD received a Virginia Occupational Safety and Health Agency (VOSHA) Citation with two serious items as a result of an inspection conducted pursuant to an employee injury that occurred at the Williamsburg Treatment Plant. The employee was injured while working on an odor control motor when the odor control fans began to turn due to "windmilling." Although proper electrical tagout procedures were followed, mechanical lockout/tagout had not been performed. Appropriate corrective actions have been taken to prevent this situation in the future including Mandatory Safety Stand Down training for all Operations employees on Lockout/Tagout procedures and Safety Practices for Fans and Blowers. No fine was levied as a result of this Citation.

2. Overall, Safety continues to be valued at HRSD as reflected in the 2015 Safety Recognition Program results. Thirty-two work centers received full safety recognition', with no OSHA recordable injuries or lost time work related injuries and no preventable auto or property damage accidents over a six-month period. In addition, five work centers received modified recognition, with minimal recordable lost time injuries or accidents.

3. With assistance from Human Resources, the 2015 Occupational Safety and Health Administration Form 300 A, Summary of Work Related Injuries and

Illnesses was completed, distributed and posted at all HRSD work centers by the January 31 deadline.

4. Mishaps and Work Related Injuries

a. HRSD-wide Injury Mishap Status to Date (OSHA Recordable)

	2015	**2016**
Mishaps	49	4
Lost Time Mishaps	11	1
Numbers subject to change pending HR review of each case.		

b. MOM Program Year Performance Measure Work Related Injuries

January 2016 Injuries For Operations	**January 2016 Injuries for Other HRSD Departments**	**Total Lost Time Injuries Since July 2015**	**Total HRSD Injuries Since July 2015**
4	0	4	33

c. Follow-up investigations were performed for four initial reports of work related injuries and one auto accident.

5. HRSD Safety Training

Strategic Planning Measure	**Unit**	**January 2016**
Total Safety Training Hours per Full Time Employee (769) All HRSD – January 2016	517 Hours / 769 FTE	0.67
Total Safety Training Hours Per Full Time Employee (769) – Cumulative July 2015	2510.24 Hours / 769 FTE	3.26

6. In addition to regularly scheduled safety training and medical monitoring, the following sessions were conducted:

a. Four external briefings for contractors working at HRSD treatment plants and pump stations

b. Forklift training for Nansemond Treatment Plant employees

c. Safety Stand Down training for Operations work centers

d. Multiple Hot Work Permit training sessions for State Street Pump Station contractor employees

e. Excavation training for Middle Peninsula employees

7. Safety Inspections, Testing and Monitoring

a. Weekly on-site inspections of the following construction sites:

(1) Army Base Treatment Plant
(2) Virginia Initiative Plant (VIP)
(3) Norchester Pump Station
(4) Victoria Pump Station
(5) York River Treatment Plant
(6) State Street Pump Station

b. Quarterly safety inspections of the following work centers:

(1) Army Base Treatment Plant
(2) Nansemond Treatment Plant
(3) Boat Harbor Treatment Plant
(4) North Shore Operations
(5) North Shore Apprenticeship Classrooms
(6) North Shore Electrical, Automotive and Carpentry Shops
(7) North Shore P3

c. Monitoring and testing for the following:

(1) Monthly hood velocity tests on Central Environmental and Technical Services lab hoods
(2) A sound level survey of ventilation systems for the Kempsville, Atlantic and Laskin Road Pump Stations

8. The Safety Manager supported the following activities:

   a. Scheduled and coordinated on-site CDL physicals for North Shore Operations employees.

   b. Attended an Operations QST meeting with Electrical Managers to discuss Electrical Arc Flash issues.

   c. Provided a tour of the Chesapeake Elizabeth Treatment Plant Headworks Building to the Virginia Beach Fire Department.

   d. Met with HRSD's Senior Risk Control Consultant and provided tours of Army Base, Chesapeake-Elizabeth, Boat Harbor and James River Treatment Plants.

   e. Escorted the City of Chesapeake Fire Marshall on inspections of Quail, Deep Creek, Bowers Hill and #337 Pump Stations and submitted applications for flammable/combustible liquid permits.

   f. Met with Atlantic Plant Superintendent and Electrician to evaluate the former Headworks Building.

9. Safety Programs

   a. The announcement of work centers receiving 2015 Safety Recognition was finalized and distributed.

   b. The Safety Team met to review 2015 work related injury and auto accident data to make recommendations to the QST regarding the Safety Recognition program.

   c. Staff began updating work center Emergency Response Procedures.

   d. 2016 inspection tags were updated and distributed to all work centers.

   e. Expired Automated External Defibrillator pads were replaced.

   f. New confined space permits were developed for the Army Base Treatment Plant.

   g. Staff began updating and submitting Superfund Amendments and Reauthorization Act Title II, Tier I and II reports for all HRSD locations.

   h. A new safe work practice for ferric sulfate to be used at major HRSD treatment plants was developed.

i. The Safety Coordinator continued to maintain the Operations Safety Accident Tracking report.

10. General

a. Staff met with a vendor to evaluate a new industrial hygiene meter.

b. Staff attended a Conflict Management Workshop.

D. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: 3

a. Newport News Shipbuilding Career Fair
b. Hampton University's Career Fair
c. Christopher Newport University's Job Fair

2. Community Partners: 4

a. Newport News Shipbuilding
b. Hampton University
c. Christopher Newport University
d. York County

Item #	Strategic Planning Measure	Unit	January 2016
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.10
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0
M-1.4a	Total Training Hours Per Full Time Employee (14) – Current Month	Total Training Hours/ FTE	1.18
M-1.4b	Total Training Hours Per FTE (14) Cumulative Fiscal Year-to-Date	Total Training Hours/ FTE	42.40
M-5.2	Educational and Outreach Events	Number	3
M-5.3	Community Partners	Number	4

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

TO: General Manager

FROM: Director of Water Quality (WQ)

SUBJECT: Monthly Report for January 2016

DATE: February 13, 2016

A. General

1. Two facilities were assessed a Civil Penalty this month.

Plains Marketing L.P., Yorktown
An Enforcement Order was issued to Plains Marketing, L.P. Yorktown in December of 2015. This Order contained an invoice for a $4,000 Civil Penalty resulting from exceedances in October and November 2015 for Toluene and Xylene. The violations have been addressed and the facility has disconnected its industrial waste discharge to HRSD as of the end of December, 2015. The Enforcement Order was accepted and the Civil Penalty paid in January 2016.

Controls Corporation of America (CONCOA) – Virginia Beach
An Enforcement Order was issued to Controls Corporation of America in Virginia Beach in November of 2015 along with an invoice for a $4,000 Civil Penalty. The enforcement order resulted from a failure to analyze required parameters in June and July of 2015, failure to submit a permit re-application within the required timeframe and failure to respond to a Notice of Violation (NOV) within the required timeframe. Controls Corporation of America appealed the amount of the civil penalty on December 2, 2015 as allowed in section 701 of the Industrial Wastewater Discharge Regulations. A hearing was held in the HRSD offices on January 7, 2016 and a ruling is expected in February from the General Manager.

2. The Water Quality Department (WQD) Director attended the Water Environment Federation's (WEF) mid-year meeting in Florida as the Resource Recovery Community of Practice (CoP) Director for WEF. This CoP Director position works with the WEF Committee Leadership Council (CLC) and three WEF committees (Disinfection and Public Health, Water Reuse, Residuals and Biosolids) to facilitate more effective committee and WEF organizational activities important to HRSD and other WEF members as well as continuous improvement within and between committees. The WQD Director raised a number of issues to the WEF Board in September

of 2015 and two of those issues have been identified as priorities for the CLC in 2016. These include how to engage committee members in the work of the committee and the training/development of committee leaders. The tenure for this CoP position is two years and will end following the WEFTEC 2016 meeting.

B. Quality Improvement and Strategic Team Activities

1. The Sustainability Advocacy Group (SAG) reported plans for an April roll out the 2016 One Thing Challenge, which will focus on material reuse. The SAG will hold face-to-face meetings with the treatment plants during February and March and plans to reach out to all work centers throughout 2016.

2. The Pretreatment and Pollution Prevention (P3) Technology Team reported that Mobile Workforce laptops and printers have been delivered to P3. P3 has begun using the laptops and printers in the field. Information Technology (IT) will be ordering a charger and stylus for each laptop.

3. The Pretreatment Information Management System (PIMS) Team reported that work on the new internet based Publicly Owned Treatment Works Administration and Compliance System (iPACS) and the Field Assistant Service Tracking (FAST) application continued with emphasis on SampleManager integration testing, system testing of SMR, Compliance and Inspection modules and custom report generation.

4. The Technical Services Division (TSD) Technology Team and HRSD's IT Department continue to evaluate a digital transformation forms program. This new technology allows users to digitally capture data in the field with immediate validation. The digital forms program could be run on various platforms including iPads and tablets. Demo testing of the application will begin February.

5. The WQ Communication Team continues to monitor and measure inter-divisional communication issues within the WQ department. Quarterly reports will be distributed to the WQ Quality Steering Team (QST).

C. Municipal Assistance

1. HRSD provided Harrisonburg Rockingham Regional Service Authority (HRRSA) and Hanover County with sampling and analytical services to support the Virginia Pollution Discharge Elimination System (VPDES) permit application process.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 3

   a. Staff provided a presentation on career opportunities in water quality to Christopher Newport University (CNU) graduate and undergraduate students as part of their Wednesday4Work series.
   b. Staff provided a Laboratory Information Management System (LIMS) meeting for a Municipal Assistance Program (MAP) customer.
   c. Staff provided a laboratory tour for employees involved in New Employee Orientation.

2. Community Partners: 5

   a. TSD and the Laboratory Division assisted the City of Newport News with a microbial source tracking project at Hilton Beach.
   b. TSD and the Laboratory Division assisted the City of Virginia Beach in its bacteria/nutrient resuspension study in Mill Dam Creek/Broad Bay watershed.
   c. TSD and the Laboratory Division assisted the City of Suffolk in a nutrient/bacteria study for Shingle Creek.
   d. TSD and the Laboratory Division provided Chlorophyll Monitoring and Assessment Program support to the Department of Environmental Quality (DEQ) and ODU in monitoring the James and Elizabeth Rivers.
   e. TSD staff assisted the City of Newport News to identify the sources of bacterial contamination in high priority watersheds as identified through citizen monitoring.

3. North Shore/ South Shore Capacity Related Overflows: 4

4. Odor Complaints: 1

   a. There was an odor complaint received regarding Norchester pump station in Norfolk, VA on January 8th. TSD checked the carbon drum on the temporary wet well and found no issues. TSD did observe a city manhole just upstream of the pump station that is a potential location for wet well odor release. The contractor is working to resolve the issue. No further complaints have been received.

Item #	Strategic Planning Measure	Unit	January 2016
M-1.4a	Training During Work Hours Per Full Time Employee (102) (Current Month)	Total Hours / # FTE	6.19
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	50.19
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	4
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	1:30620
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	110,594,708
M-3.5	Pollutant Discharge	% Pounds Discharged/Pounds Permitted	20%
M-5.2	Educational and Outreach Events	#	3
M-5.3	Community Partners	#	5
	Average Daily Flow	Total MGD for all Treatment Plants	172.72
	Industrial Waste Related System Issues	#	0

Respectfully submitted,
James Pletl, PhD
Director of Water Quality

Tasks Performed: Beginning of Engagement – 1/31/2016

During the period of December, 2015 (internal audit kickoff) – 1/31/2016, our team performed the following performance review tasks:

- Conducted the initial entrance meeting with the Engineering Department, commencing the planning phase
    - Attendees: Bruce Husselbee, Erin Girardi, Dave Cooley, and Gary Hart
- Participated in a Unifier application walkthrough/tutorial with Erin Girardi
- Obtained process documentation related to projects
- Conducted interviews with Engineering representatives to gain an understanding of the process
    - Interviewees: Capital Program Manager, Project Managers (North Shore and South Shore), Chiefs (North Shore and South Shore), and Contract Specialist (South Shore)
- Began developing audit documentation; including process flowcharts, risks/controls, and preliminary audit objectives to achieve during the fieldwork phase

Projected Tasks to be Completed - 2/1/2016 through 2/29/2016

During the period ending 2/29/2016, our team plans to:

- Finalize the audit program (audit objectives and steps to achieve those objectives) and supporting planning documentation (e.g. risk and control matrix, finalized process flowcharts)
- Conduct fieldwork activities to assess audit objectives
- Begin compiling reporting material (e.g. preliminary findings)
- Communicate any preliminary findings to the appropriate representatives

Engagement Notes/Delays

To date, we have not encountered any significant items of note outside of the normal process or anticipated delays related to the Holiday season.

Projected Budget FY16

The following is based on the proposed Internal Audit plans discussed with and approved by the Commissioners in November 2015. The plans described two full years of anticipated internal audit work with estimated fees. The timeline included in the plans depicted the estimations with the beginning point September 23, 2015. (Date contract was issued to SC&H) The contract amount issued to SC&H is $479,592 and ends September 22, 2017. The information below coincides with HRSD's fiscal years ending June 30.

AUDIT AREA	ESTIMATED FEES
Perform Risk Assessment and Plan Development	$48,440
Design & Construction: CIP Project Management	$49,050
Procurement	$49,050
Administration	$6,131
TOTAL FY16	$152,671

Projected Budget FY17

AUDIT AREA	ESTIMATED FEES
Inventory	$49,050
HR: Compensation and Benefits	$40,875
Customer Care: Billing	$49,050
Treatment Plants	$44,963
Regulatory Reporting	$36,788
Update Risk Assessment and Plan	$38,752
Administration	$8,175
TOTAL FY17	$267,653

Budget Totals

The total amount projected for the two fiscal years is $420,324 ($152,671 + $267,653). Since the contractual amount with SC&H is $479,593, this results in $59,268 being available for the period 7/1/17 to 9/22/17.

We are open to further discussion should the Commissioners desire a more accelerated or expanded internal audit effort.

Annual Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8
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
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
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
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44
M-3.6	Alternate Energy	Total KWH			0	0	0	5,911,289	6,123,399
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%
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
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%
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
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%

*These metrics will be reported upon closeout of fiscal year financials.

Monthly Updated Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	Dec-15	Jan-16
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	149.3	172.7
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	99%	97%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			$ 17,013,784	$ 17,359,488	$ 18,795,475	$ 20,524,316	$ 20,758,439	$23,499,663	$23,074,365
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	21%	21%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	0	4
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	0:26246	1:30620
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	0	1
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	96,335,689	110,594,708
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	19%	20%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	34	33
M-5.3	Number of Community Partners	Number			280	289	286	297	321	27	25

EFFLUENT SUMMARY FOR JANUARY 2016

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBl	ENTERO #/UBl	TP mg/l	TP Yr Avg	TN mg/l	TN Yr Avg	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	11.10	62%	5	8.4	4	1	0.96	0.96	11	11	NA	NA	8
ATLANTIC	28.13	52%	13	8.7	1	1	NA	NA	NA	NA	NA	NA	NA
BOAT HARBOR	18.63	75%	8	6.6	2	1	0.32	0.32	11	11	NA	NA	1
CENT. MIDDLESEX	0.020	81%	<2	<1.0	1	<1	NA	NA	NA	NA	0.79	<0.20	NA
CHES-ELIZ	19.39	81%	18	21	21	10	1.3	1.3	29	29	NA	NA	14
JAMES RIVER	14.78	74%	4	4.5	1	1	0.50	0.50	9.5	9.5	NA	NA	2
KING WILLIAM	0.035	35%	<2	0.36	NA	1	0.02	0.02	0.79	0.79	0.36	NA	NA
NANSEMOND	20.39	68%	5	6.3	2	1	0.74	0.74	6.5	6.5	NA	NA	7
URBANNA	0.038	38%	7	13	3	4	3.1	3.1	31	31	NA	<0.20	NA
VIP	37.43	94%	10	10	8	3	0.92	0.92	9.9	9.9	NA	NA	2
WEST POINT	0.563	94%	21	21	1	2	2.2	2.2	13	13	NA	8.7	0
WILLIAMSBURG	7.83	35%	4	3.5	3	3	0.39	0.39	5.5	5.5	NA	NA	3
YORK RIVER	14.39	96%	5	0.59	1	1	0.23	0.23	6.8	6.8	NA	NA	12
	172.72		9	9									

	% of Capacity
North Shore	67%
South Shore	70%
Mid Peninsula	78%

Tributary Summary

Tributaries	**TN WLA**	**Projected TN Pounds**	**Projected TN WLA**	**TP WLA**	**Projected TP Pounds**	**Projected TP WLA**
James River	7%	4,807,764	80%	7%	305,724	82%
York River	9%	319,536	111%	6%	13,044	68%
Rappahannock	19%	2,820	232%	25%	276	303%

Permit Exceedances:Total Possible Exceedances, FY16 to Date: 1:30,620
Pounds of Pollutants Removed in FY16 to Date: 110,594,708
Pollutant Lbs Discharged/Permitted Discharge FY16 to Date: 20%

Rainfall

	North Shore	South Shore
Month	3.31"	4.62"
Normal for Month	3.24"	2.90"
Year to Date Total	3.31"	4.62"
Normal for YTD	3.24"	2.90"

AIR SUMMARY FOR JANUARY 2016

Incineration

	Part 503			Title V			
	Hearth Temp Daily Avg Days > Max	THC 100 ppm Monthly Avg	THC Data Capture %	Precooler 3 Hr Avg Incidents	Venturi 3 Hr Avg Incidents	Tray 3 Hr Avg Incidents	VE Major > 1 Hr Incidents
Plant							
Army Base	0	41	93	0	0	0	0
Boat Harbor	0	22	100	0	0	0	**1**
Ches-Eliz	0	31	99	0	0	0	0
VIP	0	68	99	0	0	0	0
Williamsburg	0	18	99	0	0	0	0

Odor

	ST Days with Exceptions > 2 ppm	SH Days with Exceptions > 5 ppm	Complaints Received
Plant			
Army Base	0, 0	n/a	0
Atlantic	0, 0	0, 0	0
Boat Harbor	**1**	n/a	0
Ches-Eliz	0**,** 0	0	0
James River	0, 0	0	0
Nansemond	0	0	0
VIP	0, 0	n/a	0
Williamsburg	0, 0	0	0
York River	0	n/a	0

Pump Stations (with Odor Control)	Exceptions > 1 ppm	Complaints Received
North Shore	0	0
South Shore	0	**1**
System	n/a	**1**