



COMMISSION MEETING MINUTES
October 23, 2018

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Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-20
Lynch, Maurice P.	Commission Vice-Chair	1-20
Glenn, Michael E.	Commissioner	Absent
Lakdawala, Vishnu K.	Commissioner	1-20
Levenston, Jr., Willie	Commissioner	1-20
Rodriguez, Stephen C.	Commissioner	4-20
Taraski, Elizabeth	Commissioner	1-20
Templeman, Ann	Commissioner	1-20

1. **CONSENT AGENDA**

Action: Approve the items listed in the Consent Agenda.

Moved:	Vishnu Lakdawala	Ayes:	6
Seconded:	Willie Levenston	Nays:	0

Brief:

- a. Approval of minutes from previous meeting.
- b. Contract Change Orders
 - 1. [SWIFT Analytical Services](#) \$50,000
- c. HRSD Use of Existing Competitively Awarded Contract Vehicle
 - 1. [Microsoft® Enterprise Licensing Agreement](#) \$1,850,000

Item(s) Removed for Discussion: None

Attachment #1: [Consent Agenda](#)

Public Comment: None



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2. **DEEP CREEK INTERCEPTOR FORCE MAIN (IFM) REPLACEMENT
PUBLIC HEARING ON DETERMINATION OF PUBLIC NEED FOR EASEMENT
ACQUISITION**

Action: Conduct public hearing.

CIP Project: NP012600

Project Description: This project will replace 3,000 LF of 24-inch ductile iron pipe that runs along Canal Drive from the Deep Creek Pressure Reducing Station north to Military Highway. Wall thickness testing and corrosive soils analysis during the Condition Assessment Program indicated that this pipe is at a potentially high risk of future failure. This project was included in the U.S. EPA Consent Decree Rehabilitation Plan Phase I work and began in 2013. Numerous routes for this replacement pipeline have been considered. Final design efforts are underway and 16 easements have been acquired. One permanent utility easement of 6,035 square feet located at 2104 Iowa Street, owned by Classics 3 Group, LLC, has yet to be acquired.

In accordance with Section 15.2-1903.B of the Code of Virginia, the Commission must hold a public hearing to determine public need prior to acquisition actions that may result in condemnation. Staff will continue to attempt to negotiate an agreement up until commencement of construction.

A Parcel Location [Map](#) and an [Acquisition Plat](#) for the parcel under consideration are provided for clarification purposes.

Staff provided a short [overview](#) for the Commission and the public immediately prior to the Public Hearing.

Discussion Summary: Staff explained the project alignment, logistics and timing of construction. Chair Elofson then opened the public hearing by asking if there was any member of the public who wished to address the Commission. No member of the public desired to address the Commission. The public hearing was closed.

Attachment #2: [Presentation, Map and Plat](#)

Public Comment: None



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3. **HRSD – UNITED WAY PARTNERSHIP**

Action: No action required.

Brief: HRSD has supported the United Way through their annual campaign for employee contributions. The United Way is the only approved payroll deduction donation program authorized by HRSD. Over the past several years our workplace campaign has won numerous awards. The campaign is organized by volunteers within our workforce. Beyond the annual campaign, this group of energetic employees has looked for other ways to engage employees in fundraising and hands-on community projects through Day of Caring and other similar opportunities.

This past year our campaign leaders identified a more intensive project for our employees to showcase their skills and commitment to serving their neighbors. This project has grown into a significant partnership between the United Way of the Virginia Peninsula, the Peninsula Associated General Contractors and HRSD. This project will construct a new house for a family in need. Staff provided a briefing on this [project](#) and our United Way partnership.

Discussion Summary: The project is expected to begin in December with 70 HRSD employees volunteering their time, together with multiple businesses donating time and material to the project.

Attachment #3: [Presentation](#)

Public Comment: None



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4. **RESIDENTIAL CUSTOMER SURVEY**

Action: No action required.

Brief: SIR Research, under contract to HRSD, recently completed an online survey of our residential customers. This establishes a new baseline, as we have shifted methodology from telephone survey to online in order to reach a broader sample of HRSD customers. SIR Managing Partner Matt Thornhill briefed the Commission on the new methodology and benefits and shared the highlights of the survey results. The [verbatim report](#) is attached.

Discussion Summary: SIR sorted the data based on several factors. In most cases, few significant differences appeared. One common theme of dissatisfaction was related to, "*contact with HRSD in the past year,*" revealing significant and consistent differences across the entire survey. This increase could be a result of the implementation of the new website and billing payment system in 2017. Overall, HRSD customer service delivery scores well except with those who had to contact HRSD 2+ times in the last year for the same issue. The survey did not reveal the exact issue, only that half were related to billing and half were miscellaneous questions. Addressing customer issues during the first contact should greatly improve ratings and scores. The assessments indicate most respondents simply don't know enough about HRSD to give a rating. The Commission discussed ways to increase communication with customers about the difference we are making in the environment. Adding inserts to the bills was discussed. The survey indicated most respondents did not prefer to receive inserts in their bills. While most respondents prefer earned media (news stories), only three percent of the population recall hearing that news at a later date. Staff will be developing a communications plan focused on addressing the findings in this survey and will present that at a future Commission meeting.

Attachment #4: [Presentation](#) and [Report](#)

Public Comment: None



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5. **COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR)**

Actions:

- a. **Recognize the receipt of the Government Finance Officers Association (GFOA) of the United States and Canada Certificate of Achievement for Excellence in Financial Reporting for the CAFR for the fiscal year ended June 30, 2017.**
- b. **Accept the Finance Committee’s Report regarding the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2018.**

Moved: Vishnu Lakdawala **Ayes:** 7
Seconded: Stephen Rodriguez **Nays:** 0

Brief: Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. The CAFR, prepared by the Finance Department, summarizes the operating revenues and expenses for the fiscal year ending each June 30. HRSD is required by its Trust Agreement to prepare and distribute its financial statements within 150 days following the close of the fiscal year. The GFOA of the United States and Canada presents a Certificate of Achievement for Excellence in Financial Reporting to government units and public employee retirement systems whose CAFRs achieve the highest standards in government accounting and financial reporting. During the summer and early fall, the Accounting and Finance Division staff works diligently to prepare year-end financial statements, which are audited by KPMG LLC. In addition, they complete a rather substantial financial and statistical package, which is submitted to the GFOA for review and possible certification. The Accounting and Finance Division has received this certification annually since 1983 – an impressive achievement for 35 consecutive years.

Commissioners Lynch and Rodriguez were appointed as the Commission’s Finance Committee in 2018 for the fiscal year 2019. The Finance Committee, along with Commissioners Elofson, Lakdawala, Levenston, Templeman and Taraski, met with staff and the independent auditors, KPMG LLP, to review the CAFR and associated audit information on October 16, 2018. A draft of the [CAFR](#) was provided.

Discussion Summary: Commissioner Rodriguez, Committee Chair, summarized the Finance Committee meeting held on October 16, which included a presentation by the independent auditor, KPMG; a review the CAFR; and presentation by PFM on the Boyd Watterson GSA Fund. Additional information on the Boyd Watterson GSA fund will be presented in the next agenda item.

Commissioner Rodriguez also stated that KPMG expects to issue a clean opinion, which indicates no significant deficiencies or material weaknesses were found during their review.

Attachment #5: [Presentation](#) and [CAFR](#) Presentation and CAFR corrected 11/27/18-jlc

Public Comment: None



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6. **RETIREE HEALTH PLAN TRUST (OPEB) - BOYD WATTERSON GSA (GOVERNMENT SERVICES ADMINISTRATION) FUND
PRIVATE PLACEMENT INVESTMENT**

Action: Authorize the General Manager to direct the Retiree Health Plan Trustee, US Bank, to sign the required private placement documents to invest in the Boyd Watterson GSA Fund, LP.

Moved: Vishnu Lakdawala **Ayes:** 7
Seconded: Willie Levenston **Nays:** 0

Brief: PFM, our Investment Advisor, is recommending that HRSD invest 5% of its portfolio (approximately \$2.3 million) in the Boyd Watterson GSA Fund (GSA Fund). The GSA Fund is intended to act as a fixed-income investment and is allowed under the existing Financial Policy. Typically, PFM invests HRSD’s assets within our Financial Policy guidelines without Commission approval, but this private placement requires a subscription agreement.

The GSA Fund invests predominantly in properties leased to the U.S. General Services Administration (GSA) which oversees approximately 9,600 properties. These locations include federal agencies such as the FBI, DoD, DEA, and Department of Homeland Security. PFM goes through a rigorous process when evaluating funds. Attached is an [overview](#) of the Boyd Waterson Fund.

PFM briefed the Finance Committee on this proposed investment at its meeting on October 16, 2018 and counsel has reviewed the agreement. At the meeting, the Finance Committee was concerned about illiquidity and redemption fees. Staff and HRSD’s counsel met on October 19, 2018 with Boyd Watterson and PFM to address these concerns. The agreement states that the Fund reserves the right to deny or delay redemption requests “in the event the General Partner deems it necessary or advisable in its sole and absolute discretion...” Boyd Watterson stated that to date they have never denied a redemption request, and do not anticipate this occurring in the future. They further represented that any denial of redemption would only occur under extreme circumstances. Boyd Watterson also confirmed that there are no redemption fees.

Attachment #6: [Boyd Watterson Fund Overview](#)

Public Comment: None



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7. **DIVERSITY PROCUREMENT REPORT**

Action: No action required.

Brief: The goal of HRSD’s Diversity Procurement Policy is to promote business opportunities for small businesses and businesses owned by women, minorities and service disabled veterans (SWaM). The objectives of the policy are to identify goods and services provided by SWaM businesses; increase competition through a diverse source of contractors and suppliers; and maintain and strengthen the overall competitiveness of HRSD procurements.

A few of the higher value contracts for commodities and services awarded to SWaM businesses this past fiscal year included engineering and construction services; bulk fuel; electrical services, coating services and technology services.

The following is a comparison of fiscal years 2016 to 2018 on total spend for Operating Contracts; Corporate VISA Card Transactions; and Capital Improvement Program (CIP) Agreements and Contracts compared to total spend with SWaM businesses:

Three Year Comparison of Spend Activity with SWaM Contractors and Suppliers			
Payment Type	Percentage SWaM Spend of Total Spend		
	FY-2016	FY-2017	FY-2018
Operating	22%	28%	19%
Corporate VISA Card	15%	13%	8%
Capital Improvement Program	38%	38%	25%
<i>Total</i>	33%	33%	23%

A [summary](#) of activities and [transaction charts](#) for the period of July 1, 2017 through June 30, 2018 are attached.

Attachment #7: [Activity Summary](#) and [Transaction Charts](#)

Public Comment: None



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8. SOUTH SHORE HIGH POINT AIR VENT INSTALLATION PHASE I
INITIAL APPROPRIATION

Action: Appropriate total project funding in the amount of \$562,500.

Moved:	Willie Levenston	Ayes:	7
Seconded:	Stephen Rodriguez	Nays:	0

CIP Project: GN016600

Project Description: This project involves subsurface utility engineering of HRSD’s facilities and installation of new manual air vents at 20 of the most critical unvented high points in the South Shore Interceptor Force Main system.

Through the analysis of past failures in the HRSD force main system and condition assessment work performed as part of the U.S. EPA Consent Decree, unvented high points have been identified as a potential cause of internal corrosion and lead to the eventual failure of the pipe wall. Unvented high spots cause air to be trapped and lead to a buildup of hydrogen sulfide. Through a criticality analysis, HRSD has prioritized unvented high points within the South Shore system based on risk and consequence of failure. The location of each high point will be verified, condition assessment will be performed and manual air vents will be installed to reduce future failure due to internal corrosion.

Funding Description: The total cost for this project is estimated at \$562,500 based on a Class 5 cost estimate. Design work is not needed by an engineering firm for this work. Therefore, this work will be managed in-house through South Shore Interceptors.

Schedule:	Bid	November 2018
	Construction	January 2019
	Project Completion	June 2019

Attachment: None

Public Comment: None



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9. **WARWICK TO JAMES RIVER INFLUENT FORCE MAIN (IFM)
SECTIONS 1, 2 AND 3
DEED OF VACATION AND QUITCLAIM**

Actions:

- a. **Authorize Vacation and Quitclaim of 67 existing sanitary sewer easements and abandonment of accompanying infrastructure in connection with the Warwick Boulevard to James River IFM Replacement Sections 1, 2 and 3.**
- b. **Authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.**

Moved: Maurice Lynch **Ayes:** 7
Seconded: Stephen Rodriguez **Nays:** 0

CIP Project: JR011100, JR010820, JR012020

Project Description: In connection with the completion of the Warwick to James River IFM Replacement project and its new alignment, HRSD plans to vacate 67 existing easements. HRSD staff has determined that this portion of force main will no longer be needed. The pipe was filled with a lightweight concrete (flowable fill) and will be abandoned in place.

Funding Description: No funding required.

Agreement Description: The attached [Deed of Vacation and Quitclaim](#) has been reviewed by HRSD legal counsel. [Facilities orientation maps](#) are also provided for clarification purposes.

Discussion Summary: HRSD's assets include only the value of purchased property. Typically an easement is a right to access the property and is not included in the valuation of the asset.

Attachment #8: [Deed of Vacation, Quitclaim](#) and [Facility Map](#)

Public Comment: None



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10. **WILLIAMSBURG TREATMENT PLANT OUTFALL REPAIRS 2018
ADDITIONAL APPROPRIATION**

Action: Appropriate additional funding in the amount of \$101,189.

Moved: Willie Levenston **Ayes:** 7
Seconded: Ann Templeman **Nays:** 0

CIP Project: WB012800

Budget	\$165,000
Previous Expenditures and Encumbrances	(\$41,580)
Available Balance	\$123,420
Proposed Contract Award to Crofton Diving	(\$144,609)
Proposed Contingency	(\$80,000)
Project Shortage/Requested Additional Funding	\$101,189
Revised Total Project Authorized Funding	\$266,189

Type of Procurement: Sole Source

Contract Description: This contract is for Williamsburg Treatment Plant Outfall Repairs 2018. Crofton Diving was selected to perform the repairs to the outfall at the April 2018 Commission Meeting.

Project Description: The Williamsburg Treatment Plant Outfall was inspected in February 2018. Deficiencies identified included a missing marker buoy, pipe separation, outfall leaks, missing backfill, missing diffusers, buried diffusers, and clogged diffusers. To ensure proper dilution of the treatment plant effluent, the outfall and diffuser system needs to be operating properly. This project will make the needed repairs to the Williamsburg Treatment Plant Outfall.

Funding Description and Analysis of Cost: The total cost estimate for this project is approximately \$267,000. The estimate includes \$41,580 in engineering costs, \$144,609 in construction costs, and \$80,000 in contingency. The original appropriation was prepared by the engineer and after negotiation with the contractor it was determined to be inadequate to complete the work. It is also anticipated that the repair will require couplings and fittings that will require custom fabrication. A high contingency is needed due to the unknown extent of damage and the risk associated with underwater excavation of this 50 year old pipe. The construction estimate of \$144,609 exceeds the balance available for this CIP project. Therefore, this project requires approximately \$101,189 in additional funding.



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Schedule: Construction November 2018
 Project Completion December 2018

Discussion Summary: The design engineer, Collins Engineers, a specialty structural engineering firm with certified divers, will inspect the underwater work.

Attachment: None

Public Comment: None



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11. YORK RIVER TREATMENT PLANT DIGESTER COVER REPLACEMENT
PHASE II
ADDITIONAL APPROPRIATION

Action: Appropriate additional funding in the amount of \$94,488.

Moved: Willie Levenston **Ayes:** 7
Seconded: Ann Templeman **Nays:** 0

CIP Project: YR012220

Budget	\$1,777,375
Previous Expenditures and Encumbrances	<u>(\$1,571,863)</u>
Available Balance	\$205,512
Proposed Change Order Work	(\$200,000)
Proposed Contingency	(\$100,000)
Project Shortage/Requested Additional Funding	<u>(\$94,488)</u>
Revised Total Project Authorized Funding	<u>\$1,871,863</u>

Project Description: The project includes the design and installation of a fixed steel cover with a liquid seal arrangement to replace the damaged WesTech DuoSphere cover currently in place on the secondary anaerobic digester.

Funding Description: The estimated total project cost is currently \$1,771,000. This amount is based on construction costs of \$1,579,000 and engineering services costs of \$192,000. Deterioration to some of the digester tank was observed after removal of the damaged cover. The original CIP project estimate did not anticipate additional coatings work associated with the concrete digester tank and internal steel piping which amounts to approximately \$200,000. The additional coatings work will extend the project schedule and will require additional engineering services beyond the balance available for this CIP project. The \$100,000 contingency amount is needed to cover costs associated with additional engineering services and any unforeseen circumstances.

Schedule: Construction October 2017
Project Completion January 2019

Discussion Summary: Staff explained the coatings must be applied by a certified contractor and will be inspected by one of our in-house certified coatings inspectors.

Attachment: None

Public Comment: None



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12. **EASTERN SHORE SANITARY SEWER TRANSMISSION FORCE MAIN STUDY
COST SHARING PROPOSAL**

Action: Approve a cost share for the Eastern Shore Sanitary Sewer Transmission Force Main Study not to exceed \$60,000.

Moved: Willie Levenston

Ayes: 7

Seconded: Maurice Lynch

Nays: 0

Background: A group of concerned community leaders on the Eastern Shore met with HRSD to discuss the feasibility of constructing a transmission force main from Nassawadox to Onancock to eliminate several smaller treatment plants by using capacity available at the Onancock Treatment Plant. Elimination of the smaller plants will reduce overall costs and protect public health and provide protection for the vital aquaculture industry on Virginia’s Eastern Shore.

The impacted communities have identified an external funding source providing \$35,000 and have committed to seeking additional local funding for this feasibility [study](#). HRSD agreed to develop the scope and obtain a fee proposal for the study as the community leaders have limited expertise in managing wastewater infrastructure studies and/or projects.

HRSD worked with HDR under their annual General Engineering Services contract to develop a scope and fee working with a smaller firm familiar with the affected communities on the Eastern Shore. Staff received that proposal last week. At a total estimated cost of \$108,458, staff believes that the proposal is fair and reasonable for a project of this magnitude (20+ miles of pipe line with associated pumping stations).

Staff also believes the cost of the study may be out of reach for the Eastern Shore communities without a cost share by HRSD. The Enabling Act seems to support the Commission’s ability to participate in this study, despite being “without” the corporate limits of the district.

This project appears to be a potential solution to a number of sewer-related issues facing the communities on the Eastern Shore. This study is necessary for the Eastern Shore communities to seek construction funds. Staff believes this is a great opportunity for HRSD to support our region, encouraging cooperation and consolidation of several smaller systems serving the Eastern Shore without a significant investment or long-term obligation.

Excerpts from the Enabling Act:

From § 1. “Said District shall constitute a political subdivision of the Commonwealth established as a governmental instrumentality **to provide for the public health and welfare.** (1960, c. 66; 1998, c. 210; 2004, c. 120)”



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From § 8. “The word “pollution” means the condition of water resulting directly or indirectly from any of the following acts:

- (1) contaminating such water;
- (2) rendering such water unclean or impure;
- (3) rendering such water injurious to public health, or unfit for public use;
- (4) rendering such water harmful for cattle, stock or other animals;
- (5) rendering such water deleterious to, or unfit for, fish or shellfish, or fish or shellfish propagation, or aquatic animals, or plant life in such water;
- (6) rendering such water unfit for commercial use; or
- (7) rendering such water harmful to fish or shellfish used for human consumption. (1960, c. 66; 2008, c. 574; 2012, c. 724)”

From § 10. “(d) to construct, and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a sewage disposal system or systems, enter within or without or partly within and partly without the corporate limits of the District, and to construct sewer improvements within the corporate limits of the District;

(k) to construct and operate trunk, intercepting or outlet sewers, sewer mains, laterals, conduits or pipelines in, along or under any streets, alleys, highways or other public places within or without the District;”

From § 31. “The exercise of the powers granted by this act shall be in all respects for the benefit of the inhabitants of the Commonwealth and for the promotion of their safety, health, welfare, convenience and prosperity, and as the operation and maintenance of the sewage system by the Commission will constitute the performance of essential governmental functions”

Discussion Summary: A Commissioner asked if the Eastern Shore is interested in joining HRSD. Mr. Henifin stated that while there have been no discussions regarding HRSD servicing the Eastern Shore, that could be a possible future outcome of the development of this cooperative arrangement for this particular study

Attachment #9: [HDR Proposal for the Eastern Shore Sanitary Sewer Transmission Force Main Study](#)

Public Comment: None



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13. **CAPITAL IMPROVEMENT PROGRAM (CIP)
QUARTERLY UPDATE**

Action: No action required.

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

Discussion Summary: During the discussion of the Atlantic Treatment Plant Thermal Hydrolysis Process and Fats, Oils and Grease (FOG) Receiving Station on [Slide 5](#), staff explained the spending on this project spans multiple fiscal years. Approximately \$10 million has been spent to date on engineering and specialized CAMBI equipment that was pre-purchased and awaiting installation.

During the discussion of the Consent Decree/Sewer Rehabilitation Plan project updates on [slide 13](#), staff indicated these projects are all related to pipeline and pump stations and will not impact the SWIFT project. Phase 2 rehabilitation projects are planned for completion by 2025. The interim system improvements were tied to an expenditure goal. These projects were identified by HRSD staff as operational in nature that needed to be repaired and are not tied to an expenditure goal.

Attachment #10: [Presentation](#)

Public Comment: None



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14. **UNFINISHED BUSINESS**

Williamsburg Land Acquisition - Mr. Henifin informed the Commission negotiations for the land needed for the SWIFT facilities at the Williamsburg Treatment Plant have been underway for over a year without much success. In accordance with the public hearing for determination of public need on June 27, 2017 and the subsequent resolution adopted by the Commission on July 19, 2017, staff will begin condemnation proceedings in November if an agreement cannot be reached with the property owner.

15. **NEW BUSINESS – None**

16. **COMMISSIONER COMMENTS**

Commissioners Elofson, Levenston, Lynch and Rodriguez shared their experiences at the recent Water Environment Federation Technical Exhibition and Conference (WEFTEC). They said it was a fascinating learning experience which reinforced that HRSD employees are very knowledgeable, capable and are highly regarded in the community and wastewater treatment field. The Commissioners are very proud of HRSD employees and they job they do.

17. **PUBLIC COMMENTS NOT RELATED TO AGENDA – None**

18. **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 #11: [Informational Items](#)

Public Comment: None



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20. **RECONVENED MEETING**

Action: In accordance with the General Manager’s employment agreement, the Commission has reviewed the General Manager’s performance. In recognition of the continued strong performance of HRSD under the General Manager’s leadership, it is recommended his total compensation package be increased by two percent, effective November 1, 2018.

Moved: Maurice Lynch **Ayes:** 7
Seconded: Vishnu Lakdawala **Nays:** 0

Attachment: None

Public Comment: None

Next Commission Meeting Date: November 27, 2018 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 11:45 a.m.

SUBMITTED:

Jennifer L. Cascio

Jennifer L. Cascio
Secretary

APPROVED:

Frederick N. Elofson

Frederick N. Elofson, CPA
Chair

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ATTACHMENT #1

AGENDA ITEM 1. – Consent Agenda

CONSENT AGENDA ITEM 1.b. – October 23, 2018

Subject: SWIFT Analytical Services
Contract Change Order (>25% or \$50,000)

Recommended Action: Approve a change order with Eurofins Eaton Analytical Inc. in the amount of \$50,000.

Contract Status:	Amount	Cumulative % of Contract
Original Contract for Eurofins Eaton Analytical, Inc.	\$221,215	
Total Value of Previous Change Orders	\$855,000	387%
Requested Change Order No. 5	\$50,000	
Total Value of All Change Orders	\$905,000	410%
Revised Contract Value	\$1,126,215	

Time (Additional Calendar Days)		60
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Project Description: Analytical support of the SWIFT program provides the necessary data to form regulatory proposals, refine groundwater modeling and ensure protection of the region's groundwater supply.

Change Order Description: A two month extension and additional estimated funds are needed to allow time to evaluate proposals and award a new multi-year Agreement.

CONSENT AGENDA ITEM 1.c. – October 23, 2018

Subject: Microsoft® Enterprise Licensing Agreement
HRSD Use of Existing Competitively Awarded Contract Vehicle (>\$200,000)

Recommended Action: Approve the use of the Virginia Information Technology Agency (VITA) contract for Microsoft® (MS) products to SHI International Corporation in the estimated amount of \$370,000 for one year with four annual renewal options and an estimated cumulative value in the amount of \$1,850,000.

HRSD Estimate: \$1,850,000

Contract Description: This contract is an agreement for an MS Enterprise Licensing Agreement that includes all MS products through the use of the Commonwealth of Virginia cooperative contract with VITA. While utilizing the cooperative contract, the authorized MS reseller for Virginia may change; however, the terms of the MS agreement and all pricing will remain the same for all five years based on HRSD's current equipment.

This contract will have unknown estimated true-up costs each year to account for new licenses.

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ATTACHMENT #2

AGENDA ITEM 2. – Deep Creek Interceptor Force Main (IFM) Replacement



Acquisition of Easement
Deep Creek Interceptor Force Main
Replacement
Public Hearing

October 23, 2018

This project will replace approximately 3,000 linear feet of 24-inch ductile iron pipe that is located along Canal Drive in the City of Chesapeake. Pipe wall thickness testing indicate this pipe segment is at a potentially high risk of future failure and past leaks have occurred on an adjacent pipeline of the same material and age. This project is included in the EPA Consent Decree Rehabilitation Plan Phase I work.

Project Alignment

- Numerous alignment alternatives were considered as part of the preliminary engineering design. The chosen alignment in residential easements along Canal Drive maintains traffic along this busy thoroughfare and maintains adequate distance between the proposed HRSD force main and an old water main that the City is not prepared to replace at this time.
- Specifically, near the Canal Drive/Iowa Street intersection, the proposed pipeline is located on the west side of the road to avoid existing utilities and the highly traveled Canal Drive/Military Highway intersection.

Site Map



Existing Site

View from Iowa Street



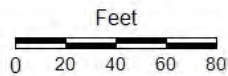
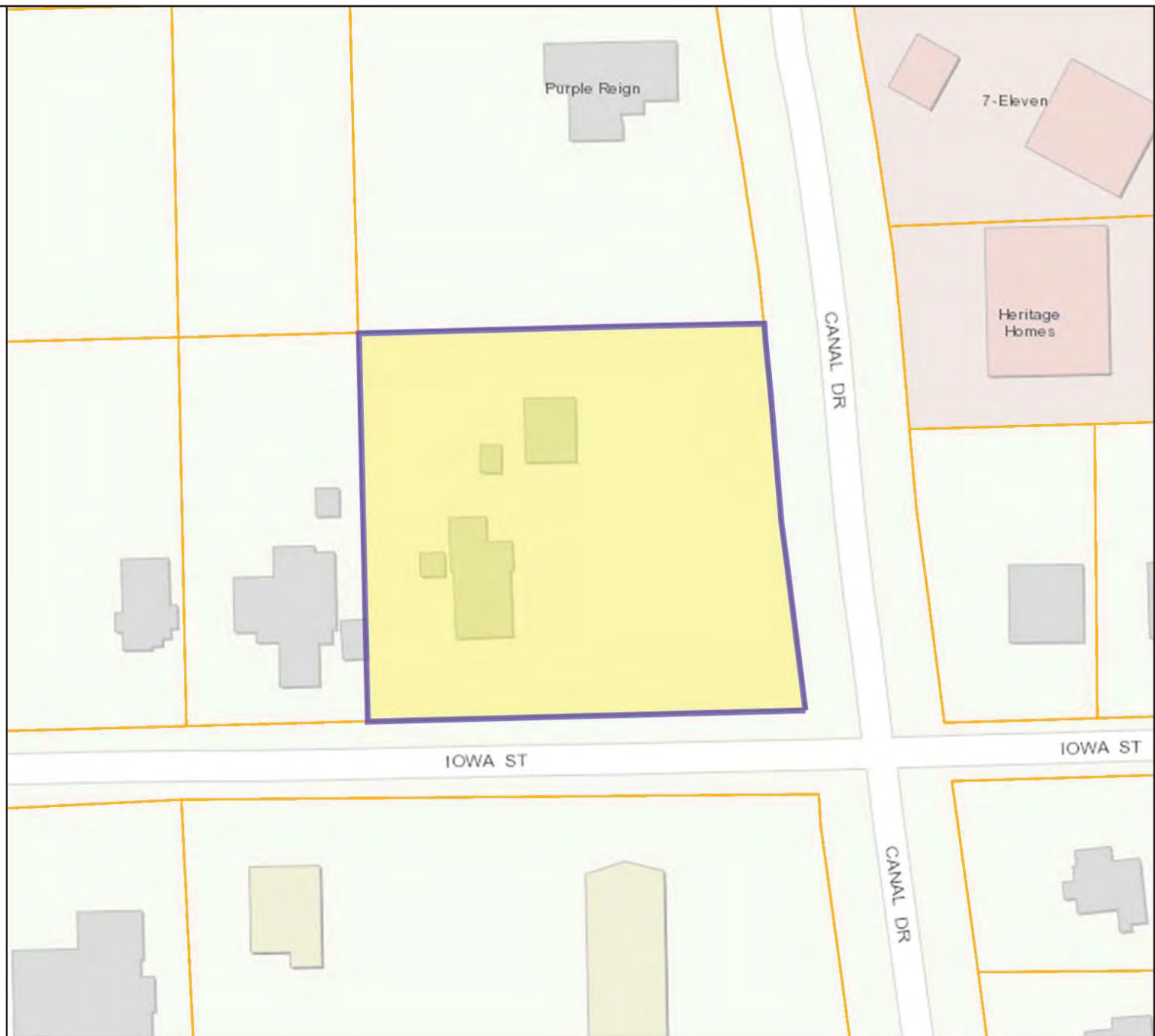
View from Canal Drive



City of Chesapeake, Virginia

Legend

- Parcels
- City Boundary



Parcel Number: 0254012000352

Date: 10/20/2017

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and City of Chesapeake is not responsible for its accuracy or how current it may be.

AREA TABLE

30' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	6,035 SQ. FT. OR 0.139 ACRES
--	------------------------------

N/F
 KENNETH M. BASS &
 KATHRYN S. BASS
 D.B. 2329, PG. 337
 M.B. 26, PG. 4
 TAX #0254012000590
 #2108 IOWA STREET

N/F
 TIMOTHY O. HARVEY
 D.B. 6702, PG. 290
 M.B. 25, PG. 23
 TAX #0254012000340
 #3008 S. MILITARY HIGHWAY

VIRGINIA STATE PLANE COORDINATE SYSTEM
 NAD83(94HARN), SOUTH ZONE

PROPERTY OF
CLASSICS 3 GROUP, LLC
 D.B. 9840, PG. 1320
 M.B. 26, PG. 4
 TAX #0254012000352
 #2104 IOWA STREET

N/F
 DOUBLE R, L.L.C.
 D.B. 9054, PG. 192
 M.B. 26, PG. 4
 TAX #0254012000351
 #3000 S. MILITARY HIGHWAY

IOWA STREET
 (VARIABLE WIDTH R/W)

S 87°00'22" W

N 09°11'38" W 201.18'



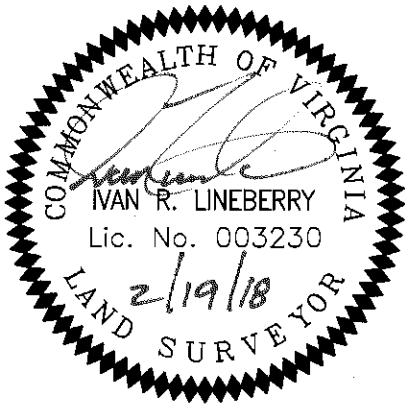
S 09°11'38" E 201.18'

N 87°00'22" E



EXISTING R/W

CANAL DRIVE
 (VARIABLE WIDTH R/W)

N:3,447,750.126
 E:12,120,115.252



HATCH & SYMBOL LEGEND

-  IRON PIN FOUND
-  DENOTES 30' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED

NOTES:

1. PROPERTY LINE AND RIGHT-OF-WAY INFORMATION SHOWN IS BASED ON PLATS, DEEDS OF RECORD AND ACTUAL FIELD MEASUREMENTS. THIS PLAT DOES NOT REPRESENT A CURRENT BOUNDARY SURVEY.
2. THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THE PROPERTY.
3. EASEMENT SHALL BE ACQUIRED BY DEED.



PLAT SHOWING EASEMENT
 TO BE ACQUIRED FROM
CLASSICS 3 GROUP, LLC
 BY
HAMPTON ROADS SANITATION DISTRICT
 FOR
**DEEP CREEK INTERCEPTOR
 FORCE MAIN REPLACEMENT**
 CHESAPEAKE, VIRGINIA
 SCALE: 1" = 50' JUNE 29, 2017

PRECISION MEASUREMENTS, INC.
 SURVEYORS • GPS • 3-D SCANNING • GIS • MAPPERS
 VIRGINIA BEACH—RICHMOND—NEWPORT NEWS—CHANTILLY—BALTIMORE
 629 PHOENIX DRIVE, SUITE 100
 VIRGINIA BEACH, VIRGINIA 23452
 TEL: (757) 368-0945

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #3

AGENDA ITEM 3. – HRSD –United Way Partnership

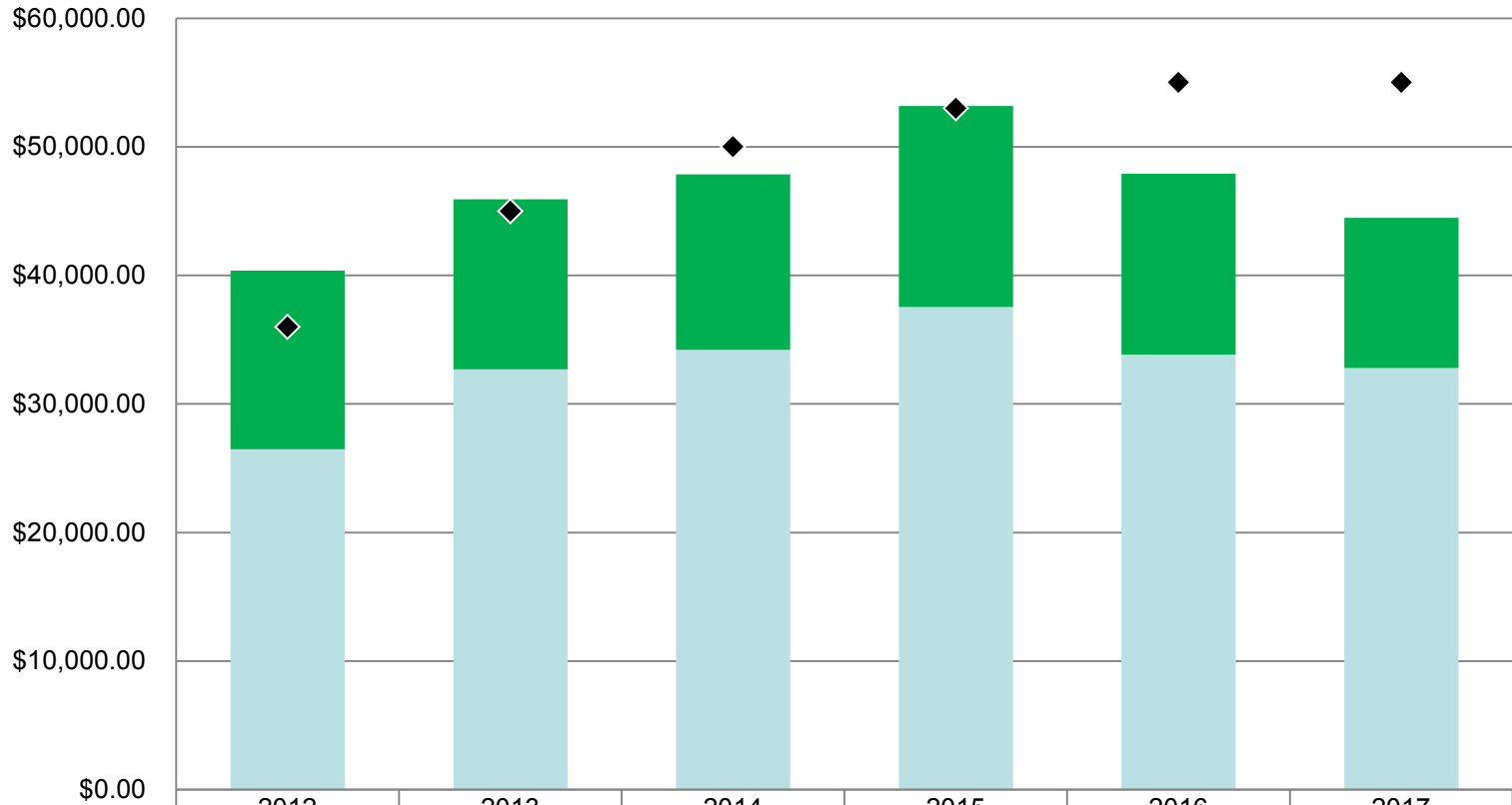


HRSD's United Way Campaign and the Williamsburg Home Project

#HRSDCares

October 23, 2018

HRSD United Way Campaign Summary 2012-2017

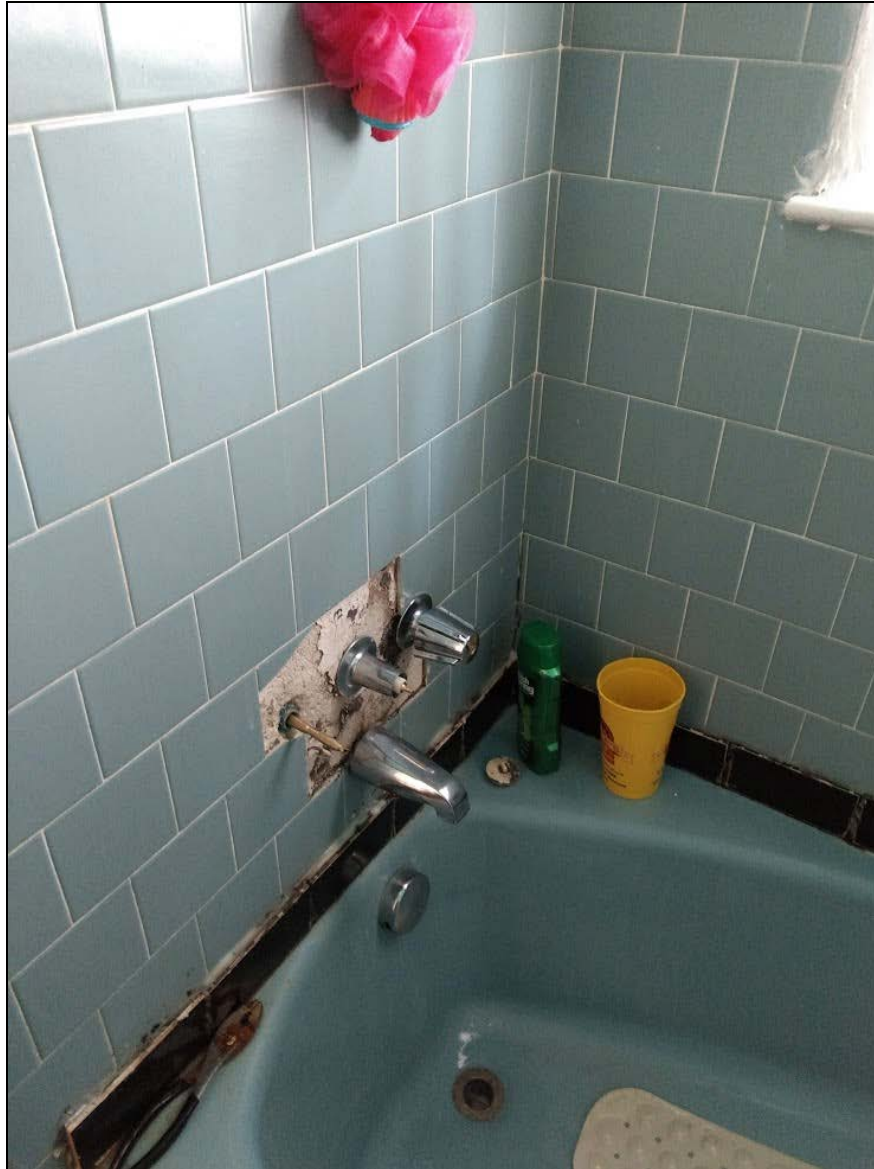


	2012	2013	2014	2015	2016	2017
■ UWVP Total	\$13,904.82	\$13,217.74	\$13,663.06	\$15,635.64	\$14,065.16	\$11,681.07
■ UWSHR Total	\$26,467.08	\$32,702.98	\$34,205.78	\$37,541.56	\$33,840.14	\$32,790.06
◆ Campaign Goal	\$36,000	\$45,000	\$50,000.00	\$53,000.00	\$55,000.00	\$55,000.00
Grand Total	\$40,371.90	\$45,920.72	\$47,868.84	\$53,177.20	\$47,905.30	\$44,471.13

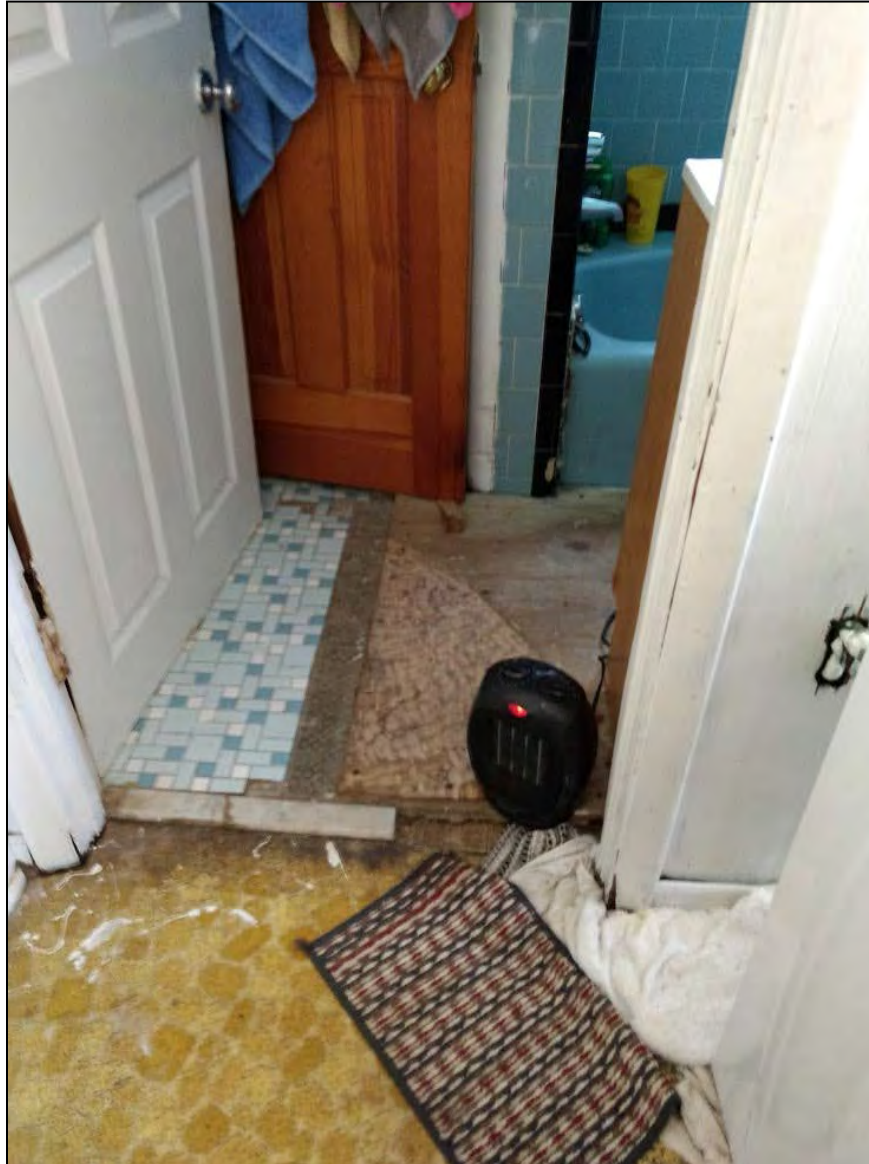
Williamsburg House (1,400 sq. ft.)



Only one deteriorating bathroom for 6 people



Holes in flooring stuffed with rugs to keep mice out



No electricity on the 2nd floor



Ceiling is falling down and holes in the walls



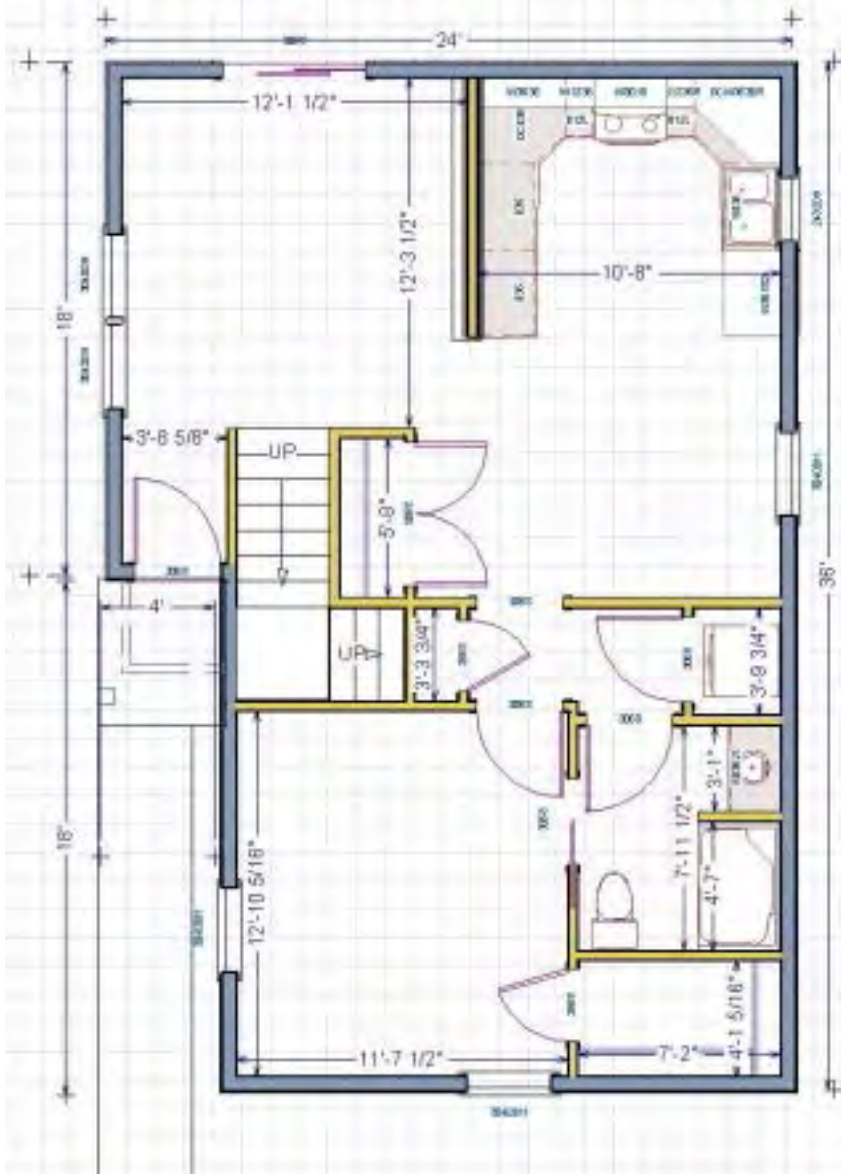
Holes in wall and stairs do not meet code, railing is missing



New Home Layout (1,600 sq. ft.)

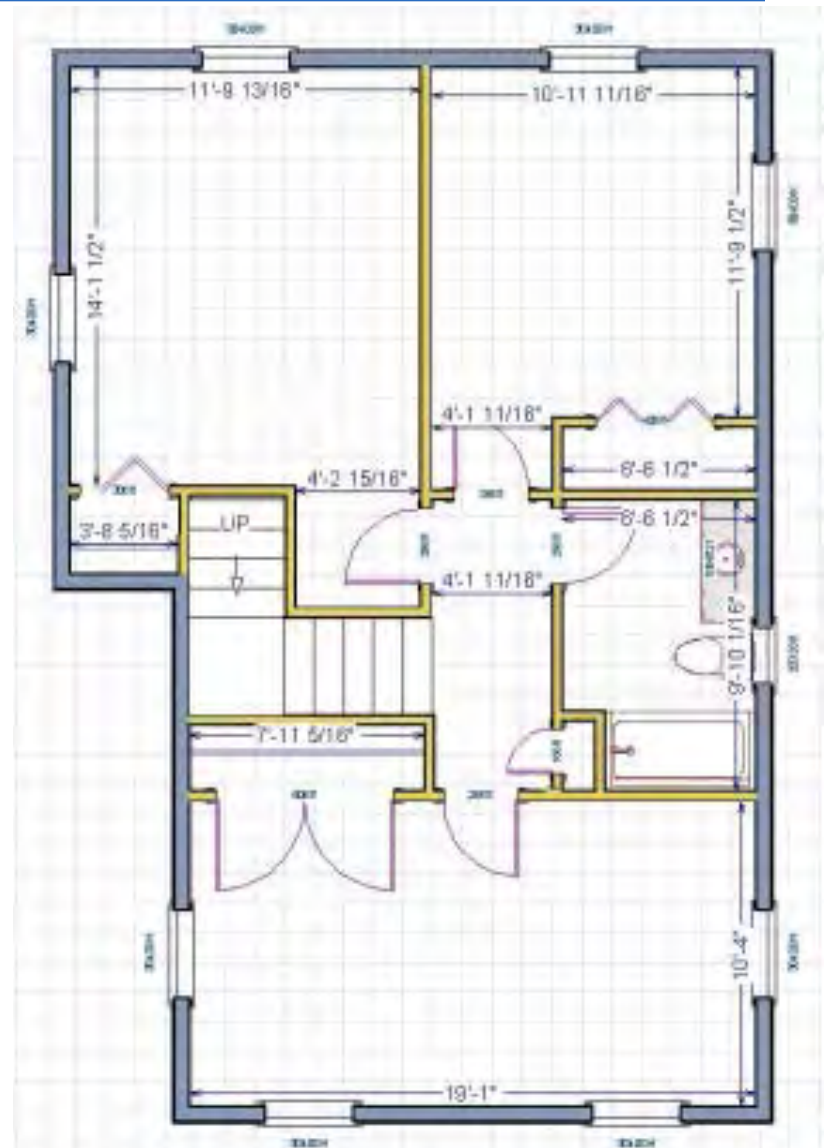


First Floor



10

Second Floor



View of First Floor (Kitchen/Dining Area, Family Room & Bathroom)



Partnership with the United Way of Virginia Peninsula and the Peninsula Associated General Contractors

Contractors/Materials currently committed to the project:

- Architecture - Stamped Drawings Provided by DFI Systems & Greg Milstead, Pembroke Construction
- Demolition - Toano Contractors
- Framers - DFI Systems (To provide material at cost with free labor)
- Electrical - Walsh Electric
- Plumbing - Hazelwood Plumbing – AGC to ask
- Drywall - F. Richard Wilton
- Exterior Siding/Trim - Lansing Building Supply (material only)
- Gutters - Forrest Gutters (material & labor)
- Roofing - Thomas Roofing (material & labor)
- Bathrooms - Ferguson (material only)
- Kitchen - Ferguson (material only)
- Flooring - Prosource
- Painting - Sherwin Williams (material) & M&M Custom Coatings (labor)
- Dumpsters - Bay Disposal

How You Can Help - Donate Now!

- www.uwvp.org
- Add comments - “HRSD Williamsburg Home Renovation Project”

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #4

AGENDA ITEM 4. – Residential Customer Survey



Hampton Roads Sanitation District 2018 Customer Satisfaction Study

October 23, 2018

Agenda

1

Background, objectives, and methodology

2

Respondent profile

3

Pivotal finding

4

Detailed findings with implications

1.

Background, Objectives, and Methodology

Background

The Hampton Roads Sanitation District engaged SIR to survey residential customers as part of a biannual tracking study of awareness, satisfaction, and communications preferences.

Prior studies were conducted by another research company in 2009, 2011, 2013, and 2015.



Objectives

- Measure **AWARENESS OF HRSD.**
- Track **OVERALL CUSTOMER SATISFACTION.**
- Assess satisfaction of:
 - **CUSTOMER SERVICE**
 - HRSD/HRUBS **BILLS**
 - **FEES** charged for sewage treatment
 - **PAYMENT OPTIONS**
- Measure **SATISFACTION OF WEBSITE.**
- Identify **COMMUNICATION PREFERENCES.**
- Explore **PERCEPTIONS.**
- Collect **DEMOGRAPHIC INFO.**
- Create a **MARKETING PANEL.**

Approach

- Online survey
 - Significantly reduced sample costs
 - Increased total responses from 500 to almost 2,200.
- The larger figure enables us to look at the data across a variety of measures:
 - Location/geography
 - Age/income
 - Familiarity with HRSD/Contact with HRSD in last year
- Specific quotas were not used for the 18 different jurisdictions, but SIR did attempt to collect responses from each area.

Methodology

ONLINE SURVEY

- Conducted among HRSD residential customers ages 18 and older who play a role in the payment of utility bills
- Lasted 12 minutes on average
- Conducted June 15 through July 9, 2018
- 2,191 responses collected.
 - 22 responses were collected via HRSD’s website link that anonymously directed to the survey
 - All other responses came from direct email links using HRSD’s contact lists
- Incentivized by opportunity to earn a \$5 e-gift card from Starbucks

Note on this report

- SIR sorted the data based on:
 - Geography, respondent age/generation, household income, race, HRSD/HRUBS logo, familiarity, SWIFT awareness, knowledge score, and contact with HRSD in last year
- In most cases, **FEW SIGNIFICANT DIFFERENCES APPEAR**. Where such differences do occur, they are noted.
- We did, however, find one particular sorting that revealed significant and consistent differences across the entire survey: **CONTACT WITH HRSD IN THE PAST YEAR**. This report shares those findings.

Some scores are lower than the previous research findings, however the scale is different

FOUR POINT SCALE:

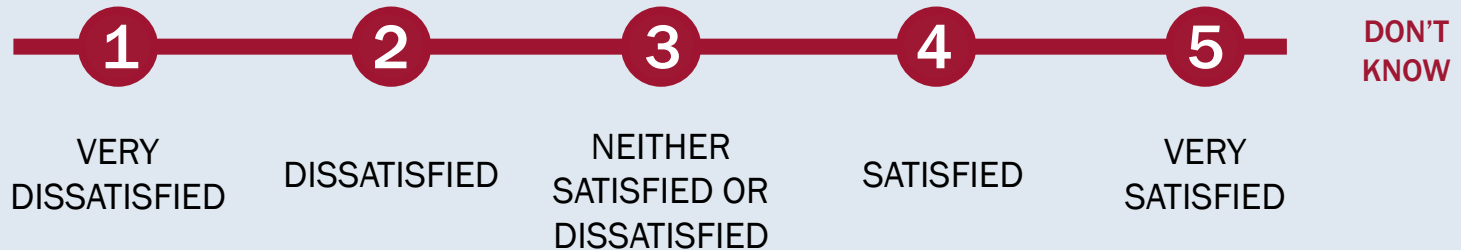


Some scores are lower than the previous research findings, however the scale is different

FOUR POINT SCALE:



FIVE POINT SCALE:



2.

Respondent Profile

Respondent geography



DEMOGRAPHIC	Q #	GEOGRAPHY	SAMPLE SIZE (n)	PERCENT
LOCALITY OF RESIDENCE	Q1	Virginia Beach	604	28%
		Chesapeake	268	12%
		Norfolk	237	11%
		Newport News	200	9%
		James City County	157	7%
		Hampton	150	7%
		Isle of Wight County	123	6%
		York County	106	5%
		Portsmouth	94	4%

continued....

Respondent geography (cont'd)



DEMOGRAPHIC	Q #	GEOGRAPHY	SAMPLE SIZE (n)	PERCENT
LOCALITY OF RESIDENCE	Q1	Williamsburg	69	3%
		Suffolk	58	3%
		Middlesex County	35	2%
		King William County	34	2%
		Gloucester County	32	1%
		Poquoson	15	1%
		Surry County	7	0%
		Town of Surry	2	0%

NOTE: The small number of respondents from Middlesex and below on this list result in data that is unstable and cannot be used to represent the residents from those communities.

Other demographic information

DEMOGRAPHIC	Q #	GROUP	SAMPLE PROPORTION
GENDER	Q53	Male	33%
		Female	61%
GENERATION	Q1	Millennials (born 1983–1999)	33%
		Generation X (born 1965–1982)	33%
		Boomers (born 1946–1965)	28%
		Silent Generation (born prior to 1946)	6%
HOME OWNERSHIP	Q52	Own	83%
		Rent	16%
		Other	1%

Other demographic information (cont'd)

DEMOGRAPHIC	Q #	GROUP	PERCENT
HISPANIC ETHNICITY	Q54	Hispanic or Latino	4%
		Not Hispanic or Latino	84%
RACE	Q55	White	66%
		Black or African-American	13%
		Asian	3%
		American Indian or Alaska Native	1%
		Native Hawaiian or Pacific Islander	1%
		Other	3%
ANNUAL HOUSEHOLD INCOME	Q56	Less than \$50,000	16%
		\$50,000-\$99,999	31%
		\$100,000-\$149,999	18%
		\$150,000+	10%



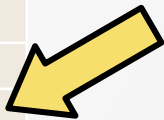
HRSD or HRUBS

DEMOGRAPHIC	Q #	GROUP	PERCENT
HRSD or HRUBS	Q4	HRSD logo	84%
		HRUBS logo	12%
		Don't know	5%



How long a customer?

NUMBER OF YEARS	HRSD BILLING RESPONDENTS (n = 1,757)	HRUBS BILLING RESPONDENTS (n = 234)
1 or less	9%	12%
2 to 5	27%	24%
6 to 10	20%	18%
11 to 20	25%	26%
21 or more	19%	21%
AVERAGE YEARS AS A CUSTOMER	12.6 years	12.7 years



3.

Pivotal Finding

PIVOTAL FINDING: Customer contact with HRSD significantly shapes satisfaction and perceptions

Customers who have been in contact with HRSD 2+ times in the last year on the same issue **ARE SIGNIFICANTLY LESS SATISFIED AND HAVE LOWER OPINIONS** about HRSD than those who didn't contact the organization or had their issue or problem handled in the only time they reached out.

Q20: In the past 12 months, have you contacted [HRSD or HRUBS] to ask a question or report a problem?

Q23: How many times have you contacted [HRSD or HRUBS] customer service regarding your most recent issue or question?

The good news is that most customers didn't have contact in the past year

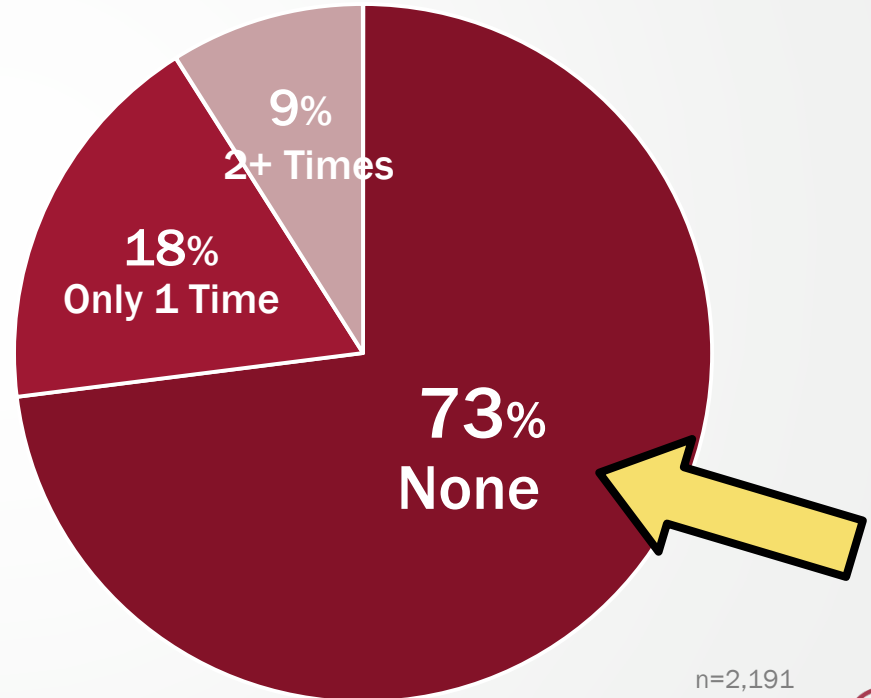
Q20: In the past 12 months, have you contacted [HRSD or HRUBS] to ask a question or report a problem?

Q23: How many times have you contacted [HRSD or HRUBS] customer service regarding your most recent issue or question?

DEMOGRAPHIC DIFFERENCES

The following groups are significantly more likely to have contacted HRSD:


- Non-white, lower income residents.
- Residents in Norfolk, Williamsburg and Suffolk. Residents in Va. Beach, Portsmouth are less likely.
- Low scoring in terms of knowledge about HRSD.



n=2,191

There are no significant differences between HRSD and HRUBS billing respondents' number of customer service contacts

CONTACTS	HRSD BILLING RESPONDENTS n = 1757	HRUBS BILLING RESPONDENTS n = 234
None	74%	69%
Only 1 Time	18%	21%
2+ Times	8%	10%



Compared to prior surveys, HRSD is getting more customer contacts than reported previously

Q20: In the past 12 months, have you contacted [HRSD or HRUBS] to ask a question or report a problem?

PRIOR SURVEYS					SIR
2009	2010	2011	2013	2015	2018
12%	15%	19%	19%	18%	27%



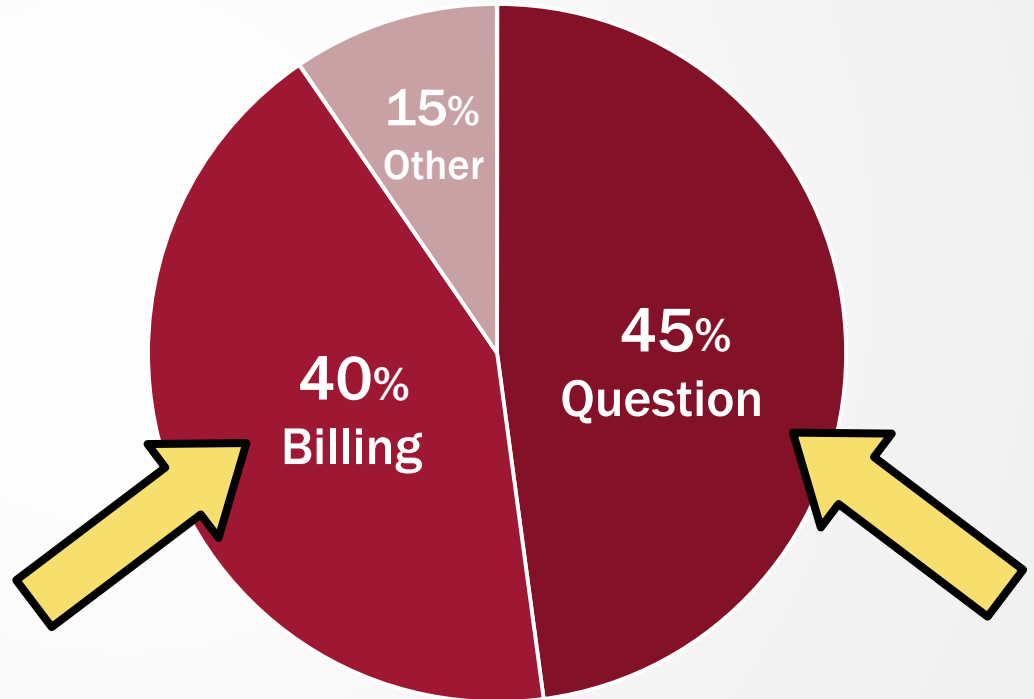
This increase could be as a result of the implementation of the new billing/payment system in 2017

Note: Prior surveys relied on a telephone sample of 500 and the current survey uses an online methodology resulting in 2,191 completed surveys.

Those who made contact had questions and billing issues

Q20: In the past 12 months, have you contacted [HRSD or HRUBS] to ask a question or report a problem? *Select all that apply.*

- 1) Yes, I had a question
- 2) Yes, I had a billing issue or dispute
- 3) Yes, I had another problem I needed HRSD to resolve



N=591

A note on evaluating the data — “Top Two Box Score”

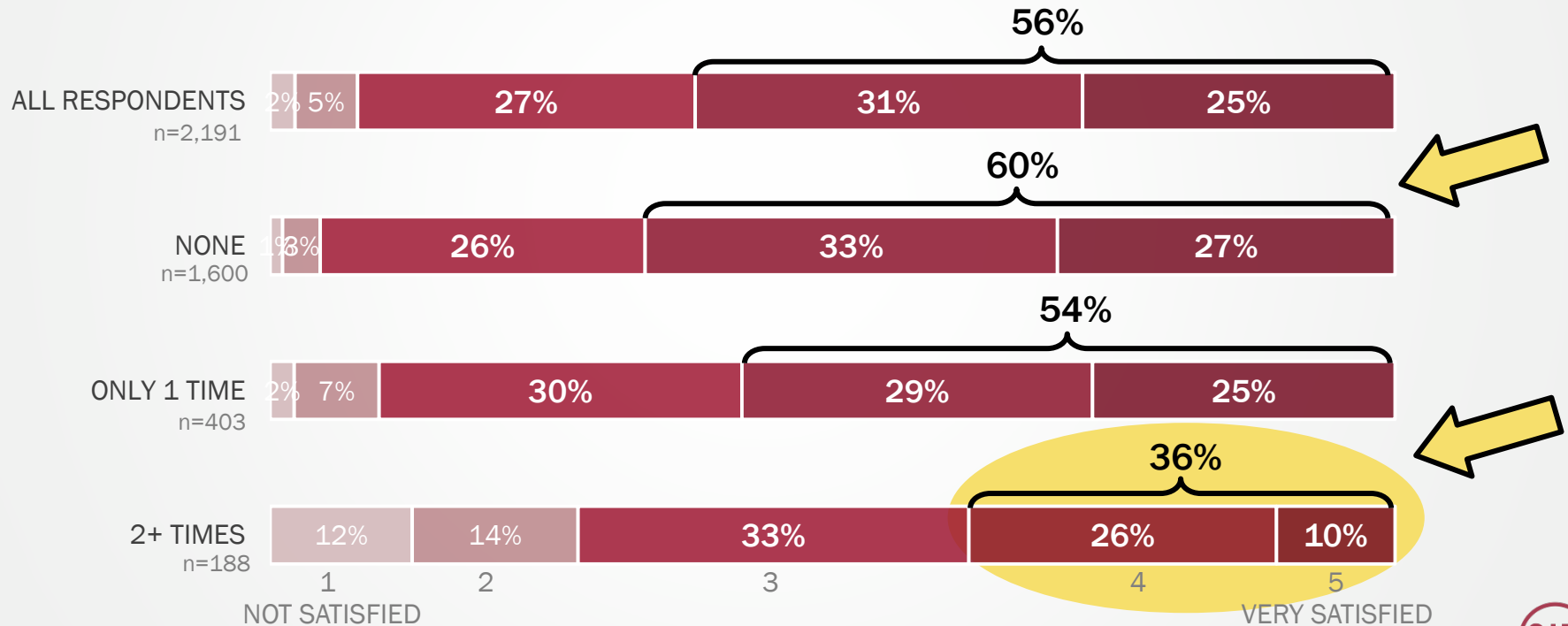
Recall the FIVE POINT SCALE: Very Satisfied to Not at all Satisfied.

The scores of “4” and “5” are called the **TOP TWO BOX** score for a question.

Scores of 70% and higher for the **TOP TWO BOX** are considered strong and indicate respondent agreement or consensus of opinion.

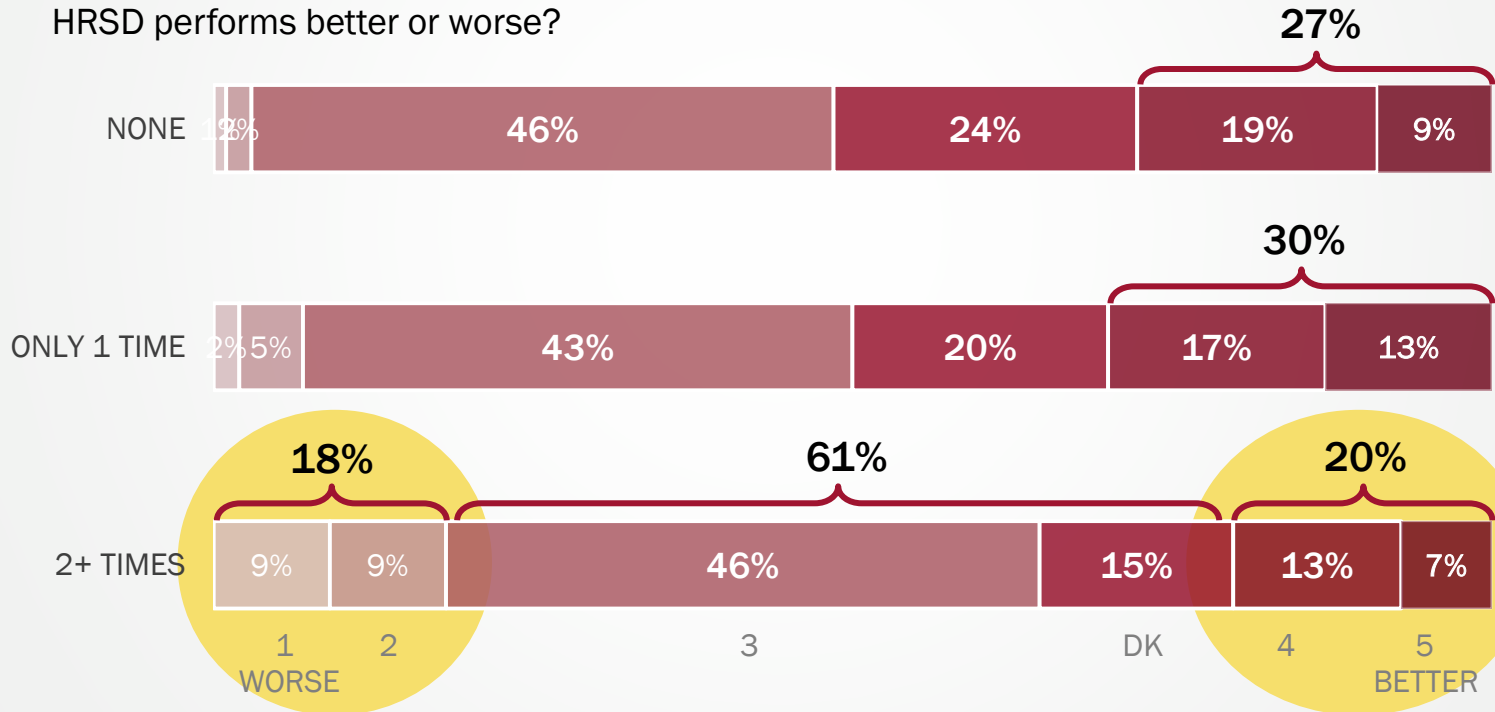
Two or more contacts lowers overall **CUSTOMER SATISFACTION**

Q8: Based on what you may know about HRSD, how satisfied are you with HRSD's services overall?



Two or more contacts also lowers assessment of HRSD's **PERFORMANCE**, although most respondents say "3 – Neither better or worse" or "Don't know"

Q9: Compared to other utility organizations, do you feel HRSD performs better or worse?



n=2,191



IMPLICATION

We'll show throughout the findings that customer contact of 2+ times in the last year significantly lowers satisfaction with HRSD.

That means one opportunity to improve scores and customer perceptions lies in being more effective in handling customer contacts.

SECOND KEY FINDING:

One third of respondents gave us their email address and volunteered to serve on a customer panel (if you decide to form one)

705

customers across all geography, age groups, generations, genders, income levels, and all other relevant dimensions.

This panel is an extremely valuable asset that HRSD should use as appropriate to test messaging, products, services and get input on important issues.

4

Detailed Findings

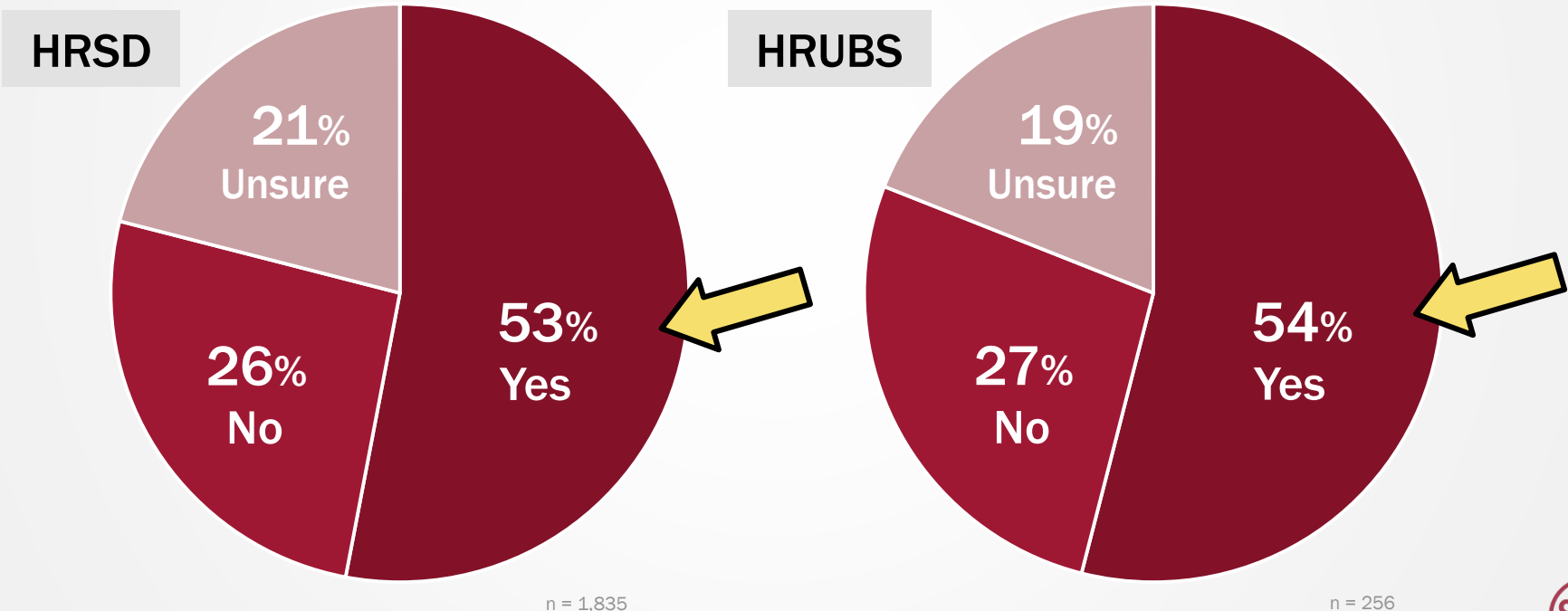
1.

Unaided awareness,
familiarity, satisfaction, and
performance assessments
are acceptable but not high

AWARENESS

Unaided **AWARENESS**: Just more than half of respondents know HRSD or HRUBS

Q3. There is a regional organization that manages wastewater treatment for several cities and counties in southeastern Virginia. Do you know the name of that organization?



AWARENESS is uneven across the service footprint

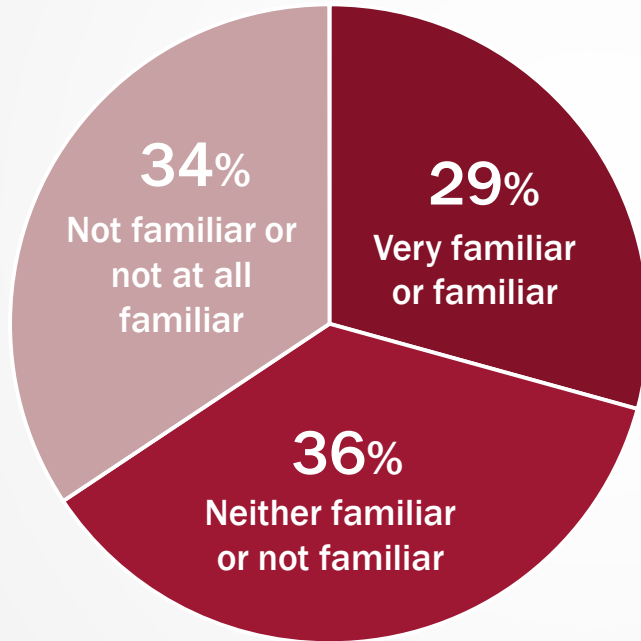
GEOGRAPHY	SAMPLE (n)	YES	NO	UNSURE
Virginia Beach	604	53%	27%	20%
Chesapeake	268	49%	27%	25%
Norfolk	237	46%	30%	25%
Newport News	200	54%	27%	20%
James City County	157	55%	29%	17%
Hampton	150	53%	25%	22%
Isle of Wight County	123	63%	22%	15%
York County	106	64%	25%	11%
Portsmouth	94	38%	28%	34%
Williamsburg	69	42%	21%	28%
Suffolk	58	59%	28%	14%

Q3. There is a regional organization that manages wastewater treatment for several cities and counties in southeastern Virginia. Do you know the name of that organization?

FAMILIARITY

Self-reported **FAMILIARITY** is fairly split

Q6. As you may know, HRSD is the regional organization that manages wastewater treatment.
How familiar are you with HRSD and its services?



n = 2,191

Given that respondents pay or are involved in the utility bills, we would expect familiarity to be higher.

FAMILIARITY also is uneven across the service footprint

GEOGRAPHY	SAMPLE (n)	FAMILIAR	NEITHER	NOT FAMILIAR
Virginia Beach	604	32%	36%	31%
Chesapeake	268	26%	35%	38%
Norfolk	237	30%	34%	36%
Newport News	200	33%	43%	25%
James City County	157	17%	35%	48%
Hampton	150	33%	39%	28%
Isle of Wight County	123	30%	37%	34%
York County	106	29%	36%	35%
Portsmouth	94	32%	34%	34%
Williamsburg	69	22%	32%	47%
Suffolk	58	28%	38%	35%

Q6. As you may know, HRSD is the regional organization that manages wastewater treatment. How familiar are you with HRSD and its services?

IMPLICATION

The uneven awareness and familiarity scores across the service footprint can be addressed with consistent messaging and communications strategies to all customers.

When asked about top of mind words related to HRSD, “water” dominates mentions

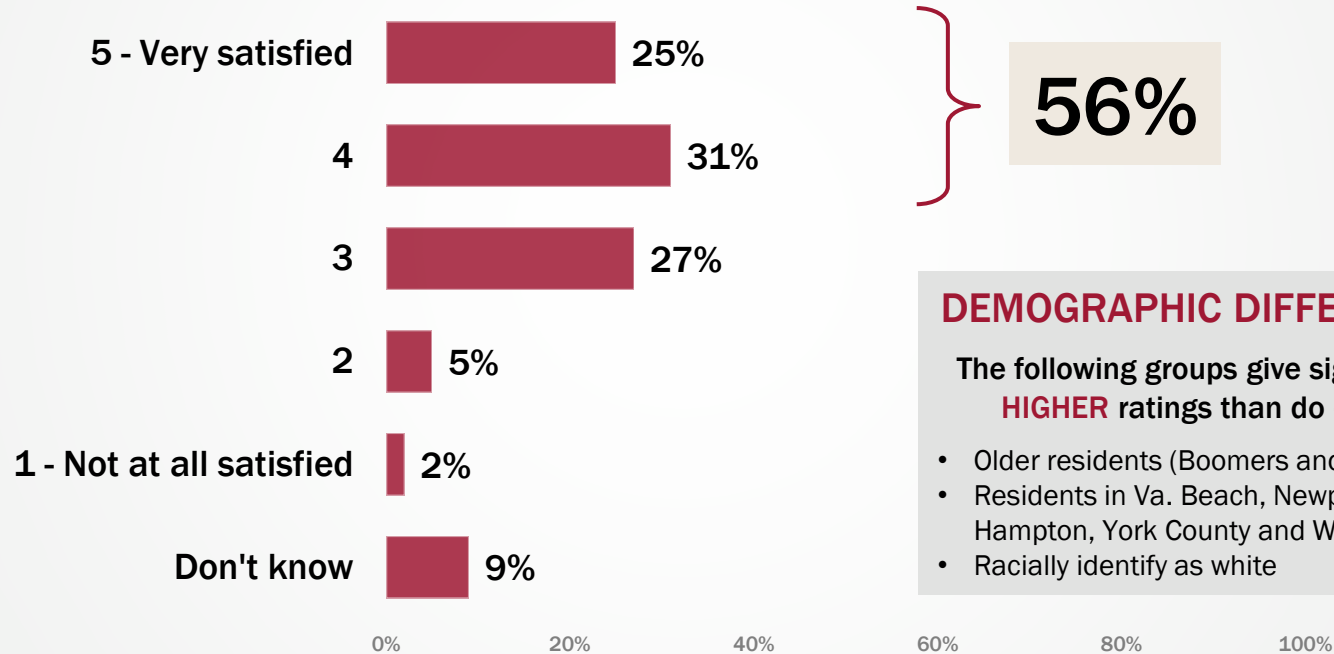


This image is from Wordle.net. It is a tool that captures the frequency of words in text. In this case, all responses to Q7 were loaded and the top 30 mentions are shown here. The larger the word, the more frequent the mention.

n = 2,191

SATISFACTION

Despite low familiarity, slightly more than half of respondents report high levels of **SATISFACTION** with HRSD

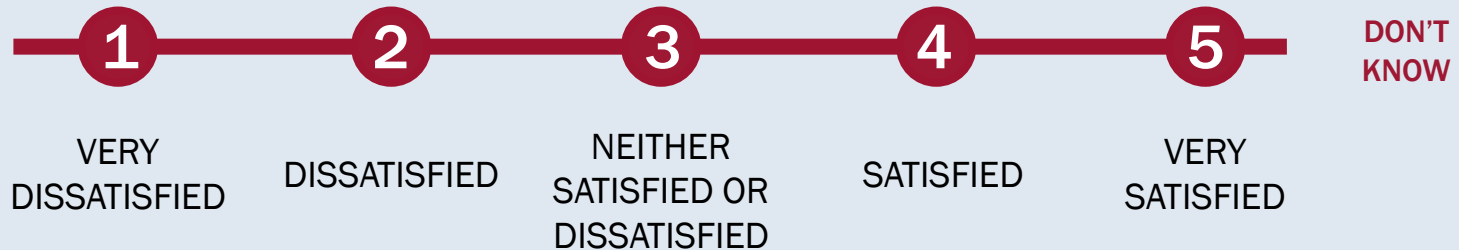


SATISFACTION scores are lower than the previous research findings, however the scale is different

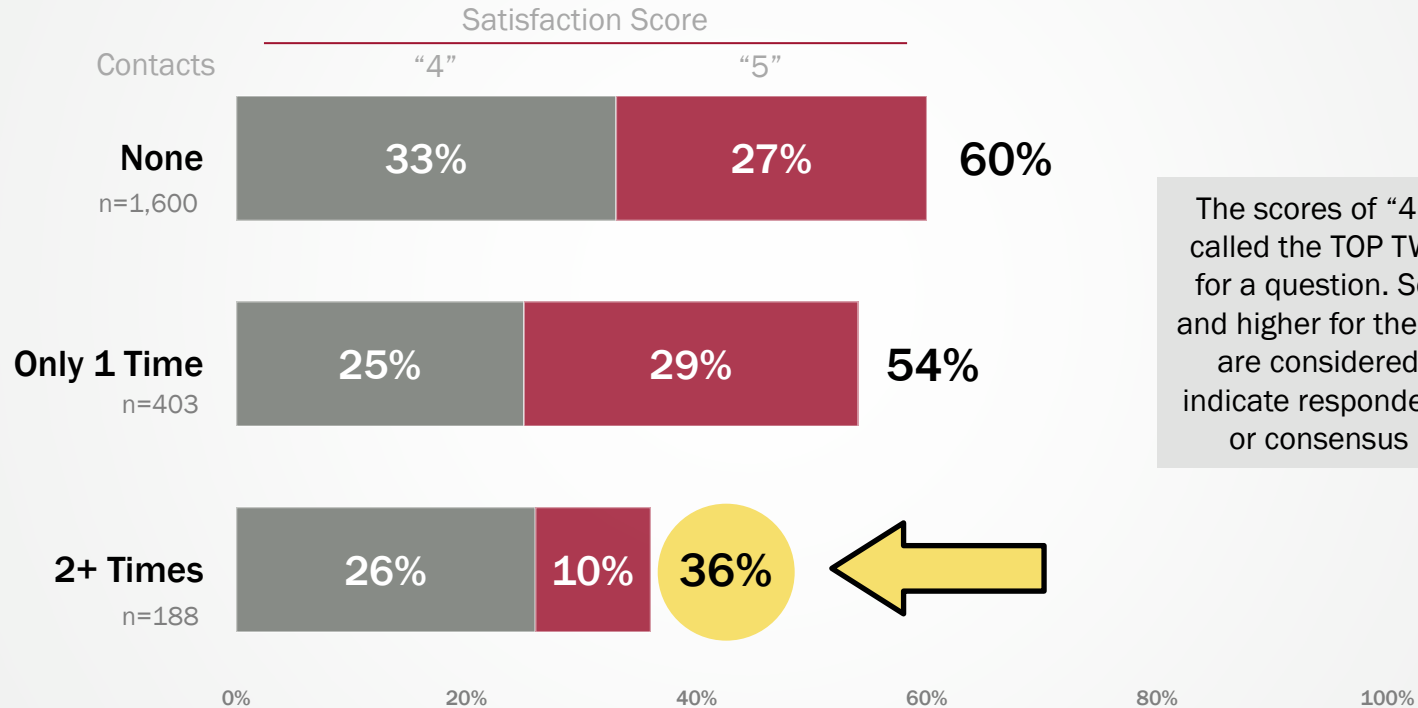
FOUR POINT SCALE:



FIVE POINT SCALE:



As mentioned, **SATISFACTION** levels drop with 2+ contacts with HRSD

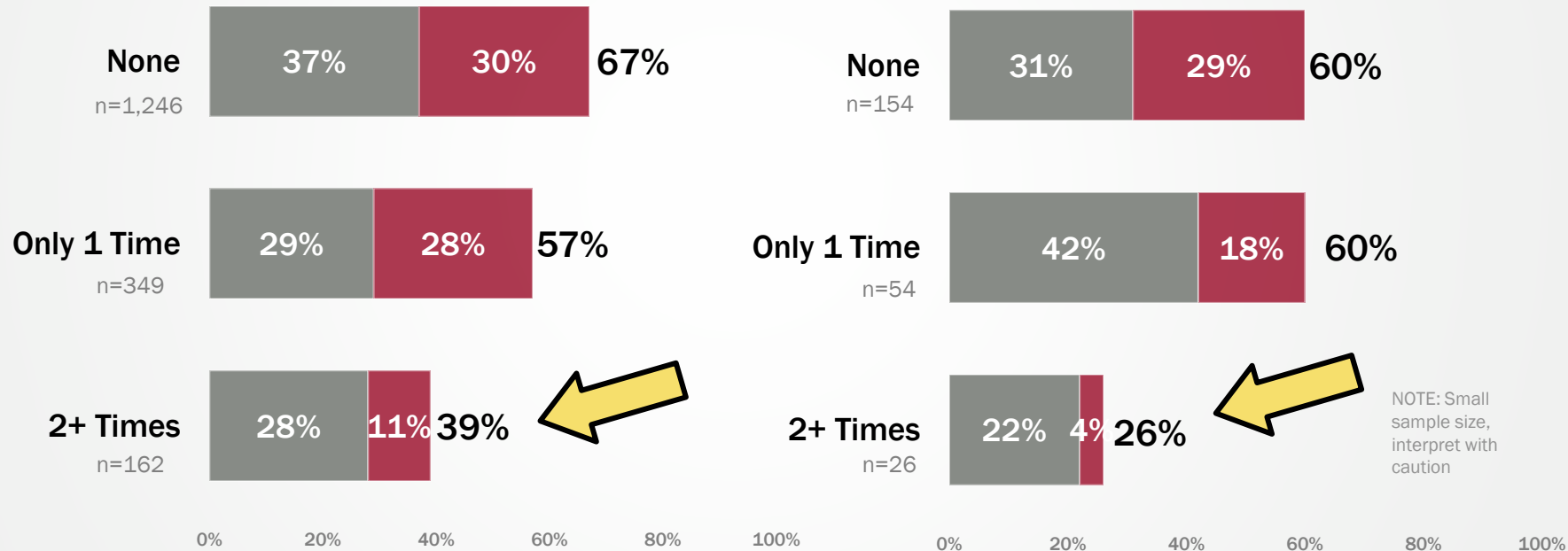


The scores of "4" and "5" are called the TOP TWO BOX score for a question. Scores of 70% and higher for the TOP TWO BOX are considered strong and indicate respondent agreement or consensus of opinion.

HRSD and HRUBS both have large **SATISFACTION** level drops with 2+ customer service contacts

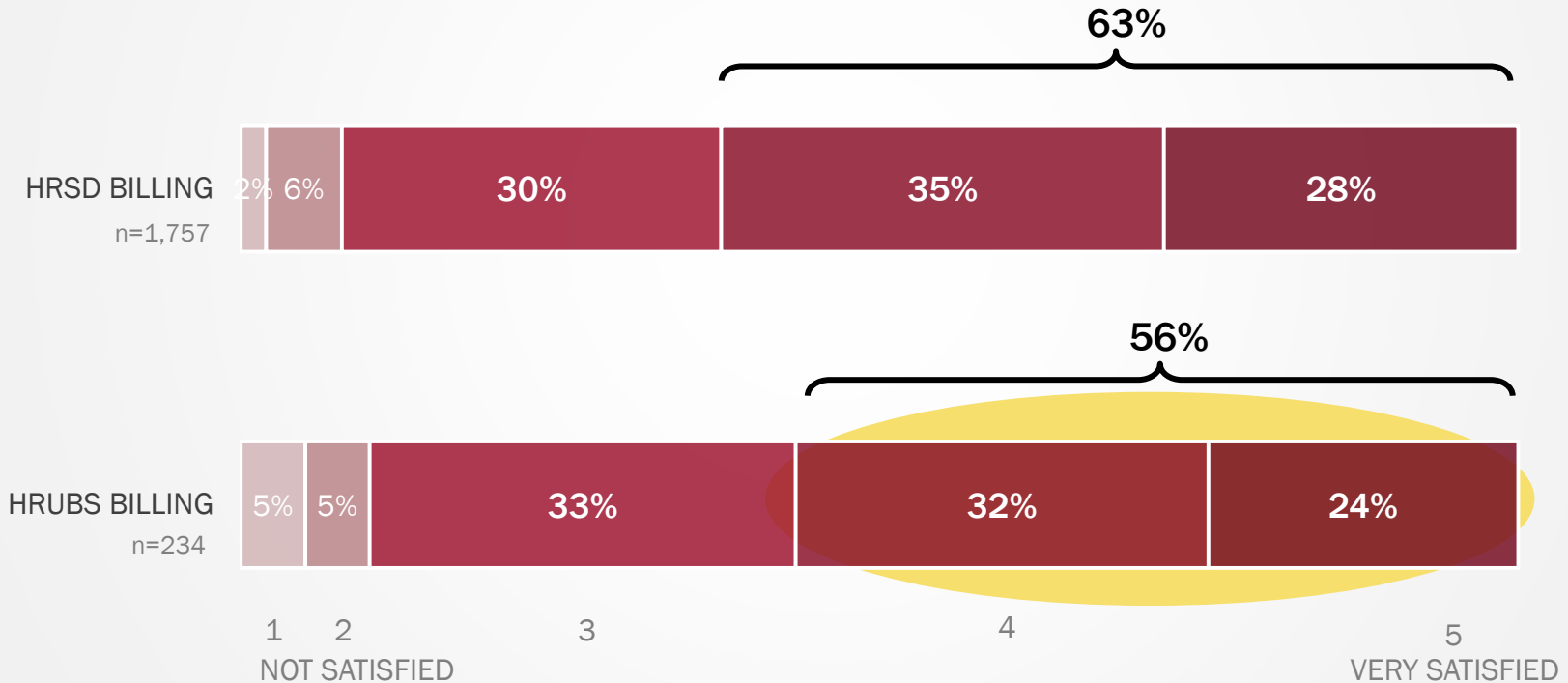
HRSD BILLING RESPONDENTS

HRUBS BILLING RESPONDENTS



HRSD billing respondents have slightly higher overall **CUSTOMER SATISFACTION** than HRUBS billing respondents

Q8: Based on what you may know about HRSD, how satisfied are you with HRSD's services overall?



KNOWLEDGE

Respondents were also sorted by their overall knowledge level of what the HRSD organization does

Q40. TRUE OR FALSE? HRSD:	ANSWER
Provides wastewater treatment for several cities and counties in southeastern Virginia.	True
Is responsible for garbage collection throughout southeastern Virginia	False
Treats the drinking water that comes into my home	False
Provides environmental educational materials, lesson plans, facility tours, and a speakers bureau.	True
Offers environmental improvement grants and scholarships.	True
Offers an apprenticeship program	True
Provides area boaters a free pump out program during summer months	True

Knowledge about what HRSD does is limited

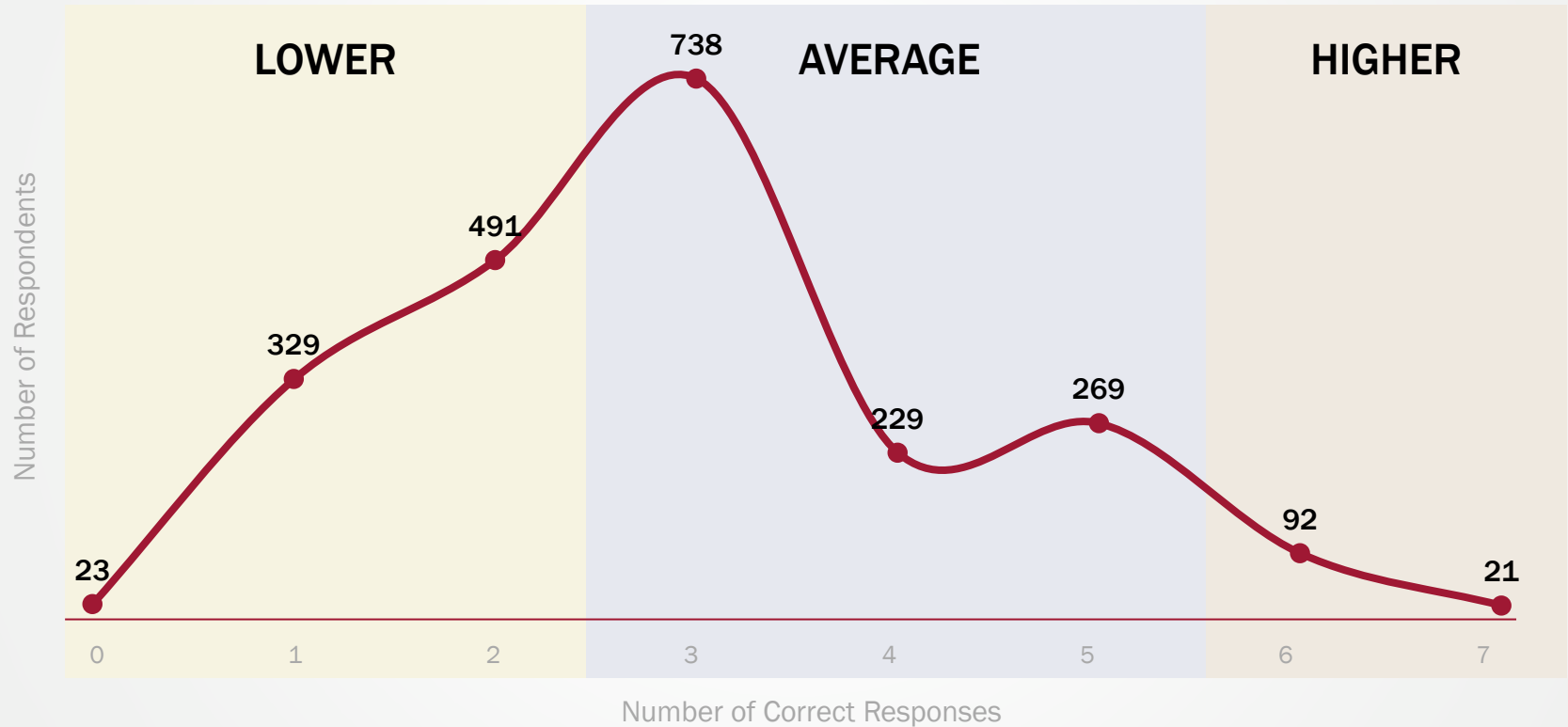
WHAT DOES HRSD DO?	Correct	Wrong
Provides wastewater treatment for several cities and counties in southeastern Virginia.	86%	14%
Is responsible for garbage collection throughout southeastern Virginia	71%	29%
Treats the drinking water that comes into my home	41%	59%
Provides environmental educational materials, lesson plans, facility tours, and a speakers bureau.	40%	60%
Offers environmental improvement grants and scholarships.	28%	72%
Offers an apprenticeship program	17%	83%
Provides area boaters a free pump out program during summer months	13%	87%

Q40. We want to understand your level of knowledge about HRSD as an organization. Which of the following statements are TRUE about HRSD?

n = 2,191

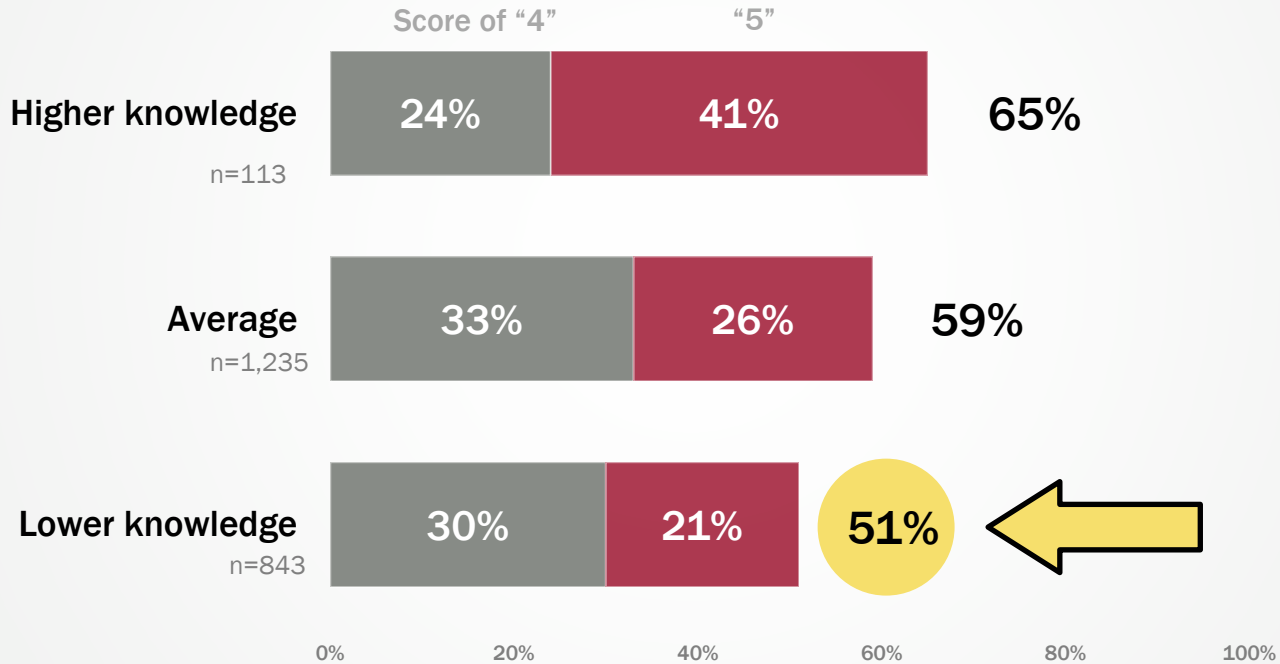


Knowledge of respondents fall out as follow:

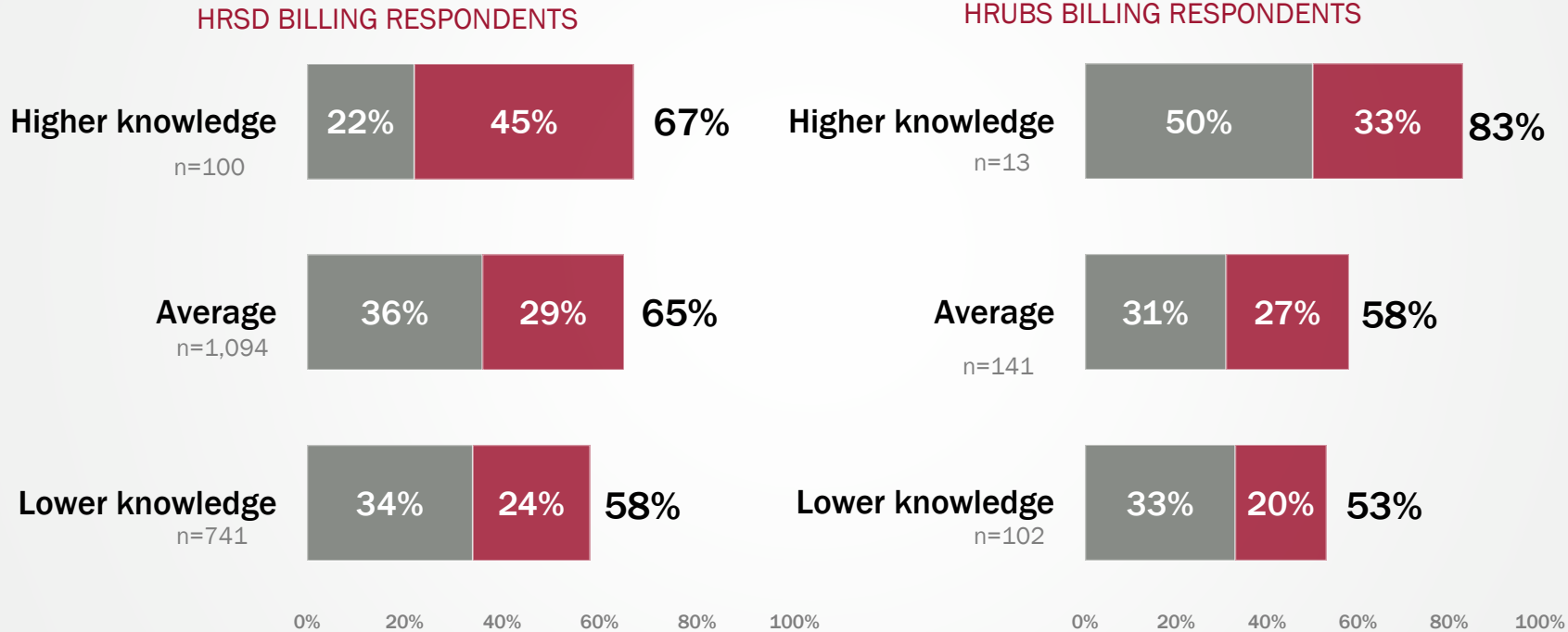


SATISFACTION levels fluctuate based on knowledge level

Q40. We want to understand your level of knowledge about HRSD as an organization.
Which of the following statements are TRUE about HRSD?:



SATISFACTION levels fluctuate based on knowledge level, regardless of locality

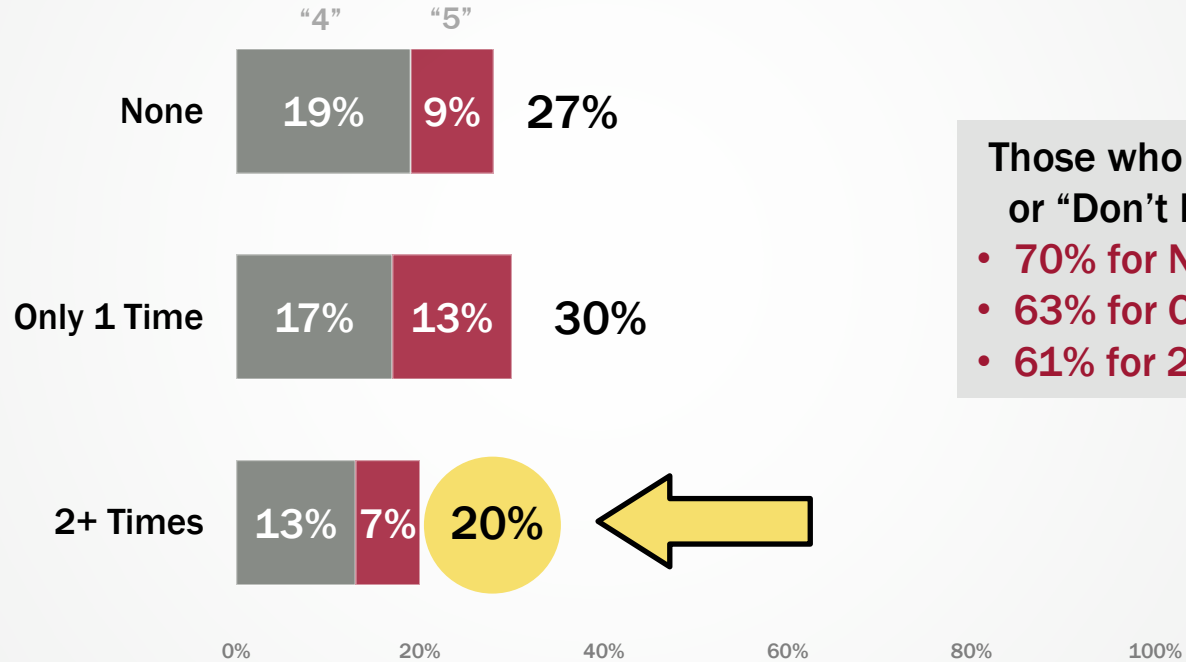


NOTE: Small sample size, interpret with caution



PERFORMANCE

Similarly, **PERFORMANCE** scores drop with 2+ contacts with HRSD

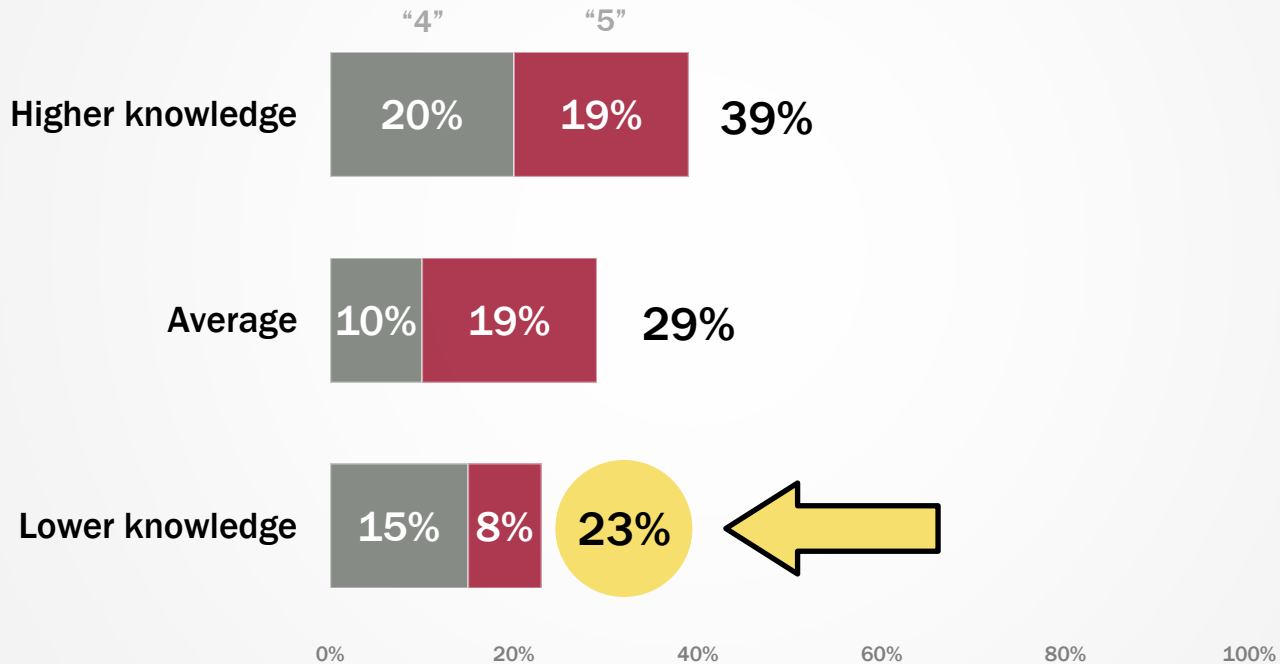


Those who score a "3" or "Don't know" are:

- 70% for None
- 63% for Only 1 Time
- 61% for 2+ Times.

PERFORMANCE scores also fluctuate based on knowledge

Q40. We want to understand your level of knowledge about HRSD as an organization.
Which of the following statements are TRUE about HRSD?:



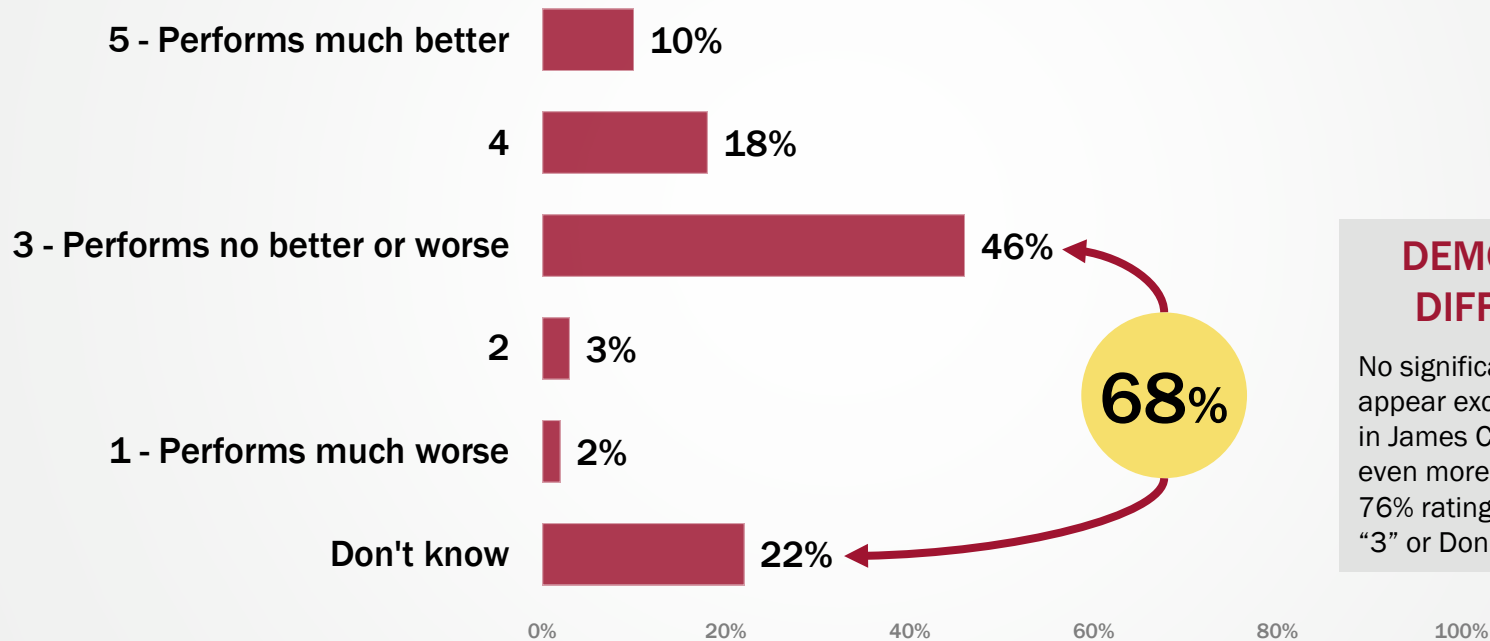
IMPLICATION

Despite average awareness, low familiarity and performance ratings, **more than half of respondents report positive satisfaction scores**. However, those scores drop significantly among residents with multiple contacts with HRSD, suggesting a need to focus on customer care. Also, customers with lower knowledge about HRSD also report lower satisfaction levels, **which means there's a need to increase public outreach**.

2.

**Performance assessments
actually indicate most
respondents simply don't
know enough to give a rating**

Two out of three respondents either score HRSD a neutral “3” or say “Don’t Know” when it comes to **PERFORMANCE**



DEMOGRAPHIC DIFFERENCES

No significant differences appear except that residents in James City County were even more on the fence with 76% rating performance a “3” or Don’t know.

IMPLICATION

The high neutral or “don’t know” scores for performance mean you have a clean slate to address perceptions. **There’s not a negative perception to change, only a positive one to establish more fully.**

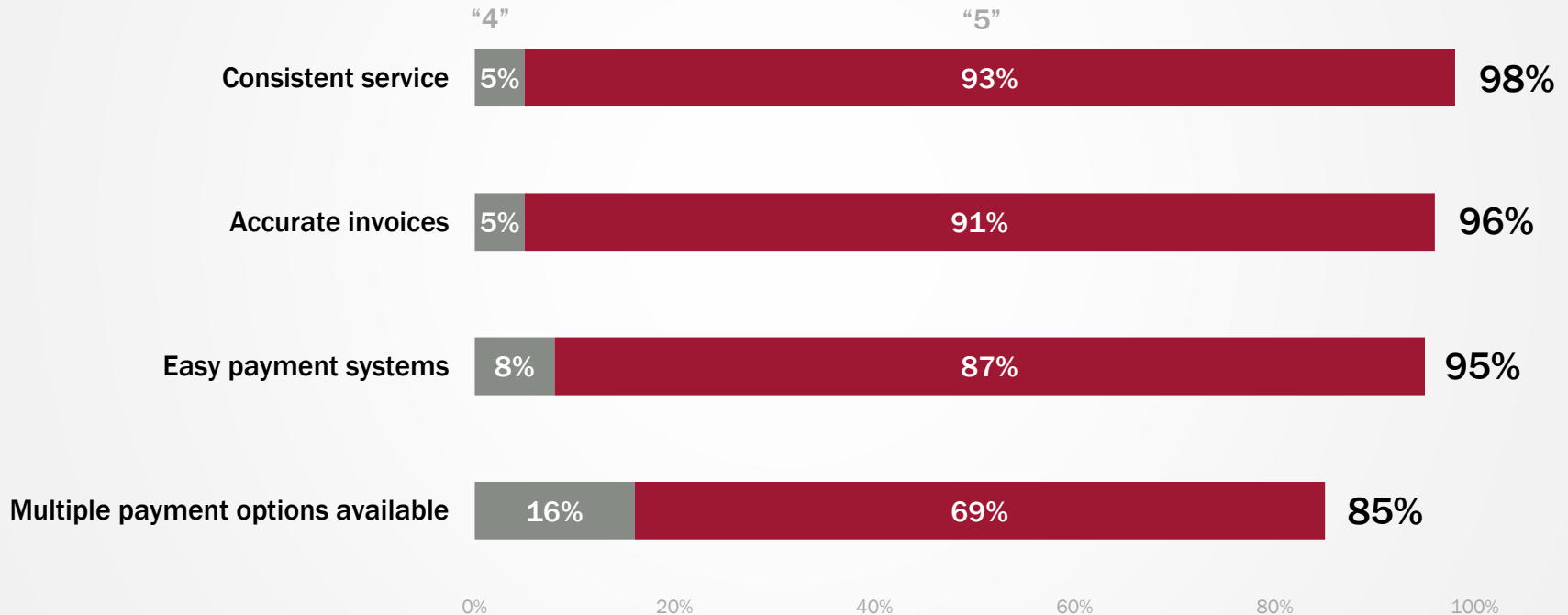
3

**Aligning service delivery
with customer expectations
creates opportunities**

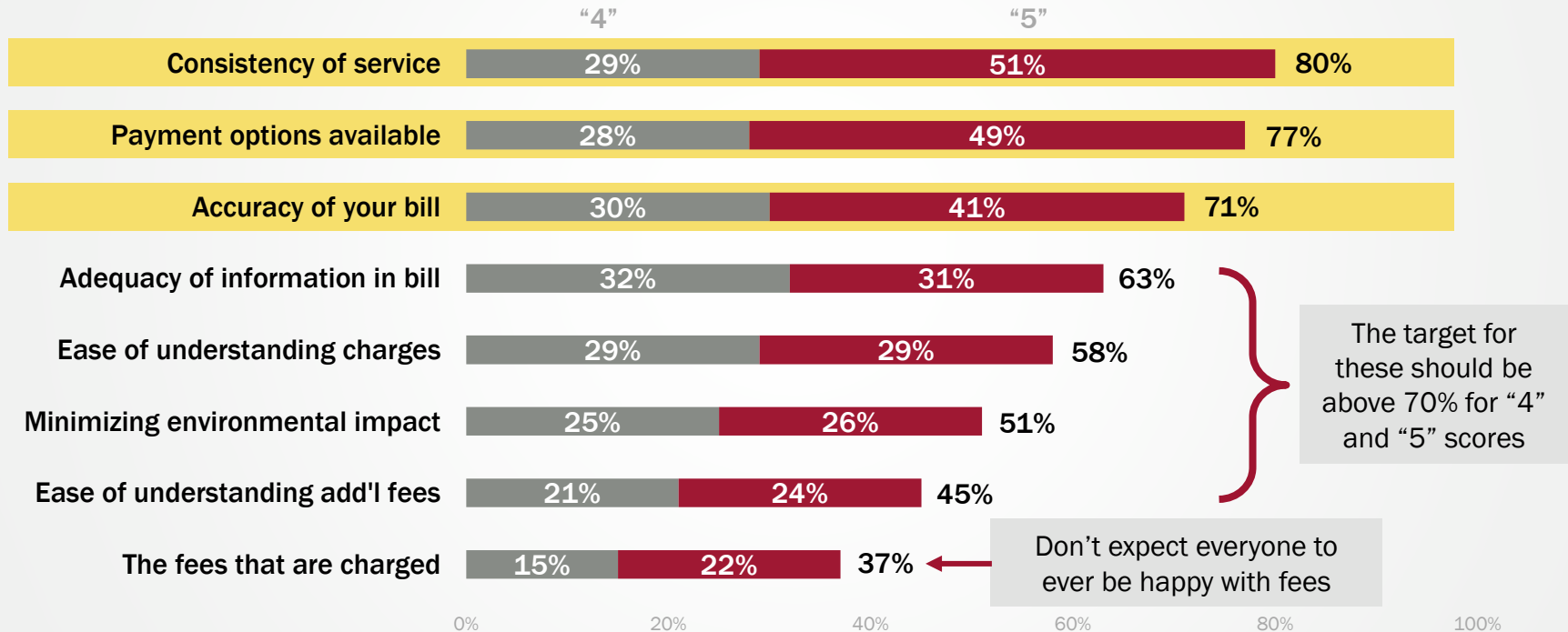
IMPORTANCE versus SATISFACTION with HRSD

We asked residents to rate the importance of a series of attributes for any utility, then asked them about their satisfaction with HRSD to deliver some of those same attributes. The goal is to identify areas where gaps exist.

All residents expect utilities to get the basics right. These are the non-negotiables in terms of **IMPORTANCE**



HRSD **SATISFACTION** scores are good on the basics, and need to improve communicating key information



HRSD billing respondents have significantly higher **SATISFACTION** scores than HRUBS billing respondents on multiple attributes

ISSUE (Scores of 4 or 5 Total)	HRSD BILLING RESPONDENTS	HRUBS BILLING RESPONDENTS
Consistency of service	79%	72%
The payment options available	79%	73%
The accuracy of your bill	73%	68%
The adequacy of information included in your bill	65%	57%
Minimizing environmental impact of wastewater treatment	61%	51%
The ease of understanding your utility charges	60%	54%
The ease of understanding the additional fees	48%	40%
The fees that are charged	39%	29%



SATISFACTION scores drop significantly among those with 2+ contacts with HRSD in the last year

ISSUE (Scores of 4 or 5 Total)	NONE	ONLY 1 TIME	2+ TIMES
Consistency of service	80%	73%	53%
Payment options available	79%	73%	59%
Accuracy of your bill	75%	65%	46%
Adequacy of information included in your bill	66%	59%	38%
Ease of understanding your utility charges	62%	53%	38%
Minimizing environmental impact of wastewater treatment	53%	49%	36%
Ease of understanding the additional fees	49%	43%	20%
The fees that are charged	39%	34%	22%

SATISFACTION scores also drop among those less knowledgeable about HRSD

ISSUE (Scores of 4 or 5 Total)	HIGHER	AVERAGE	LOWER
Consistency of service	90%	78%	73%
Payment options available	83%	77%	75%
Accuracy of your bill	78%	74%	65%
Adequacy of information included in your bill	67%	65%	58%
Ease of understanding your utility charges	68%	61%	45%
Minimizing environmental impact of wastewater treatment	59%	54%	36%
Ease of understanding the additional fees	54%	48%	39%
The fees that are charged	40%	40%	32%



Overall, the gaps between **IMPORTANCE** and **SATISFACTION** are not troubling (you'll never meet the ideal) except for customers who contacted HRSD 2+ times last year

ALL RESPONDENTS	IMPORTANCE	SATISFACTION	GAP
Consistency of service	98%	80%	18 pts
Payment options available	85%	77%	8 pts
Accuracy of your bill	96%	71%	25 pts
AMONG RESPONDENTS WITH 2+ CONTACTS	IMPORTANCE	SATISFACTION	GAP
Consistency of service	95%	53%	42 pts
Payment options available	80%	59%	21 pts
Accuracy of your bill	97%	46%	51 pts

Q10. How important do you feel it is for any utility to have the following:

Q14. How satisfied are you with the following aspects of HRSD wastewater services and billing?

Most are happy with paying via the website, except those who have had 2+ contacts with HRSD in the last year

BY CONTACT IN LAST YEAR

SATISFIED PAYING VIA WEBSITE	ALL	NONE	ONLY 1 TIME	2+ TIMES
1 - Not at all satisfied	3%	1%	5%	18%
2	4%	4%	6%	9%
3 - Neither satisfied or not	16%	15%	15%	20%
4	26%	26%	29%	26%
5 - Very Satisfied	50%	54%	46%	27%
TOP TWO BOX:	76%	80%	69%	53%

IMPLICATION

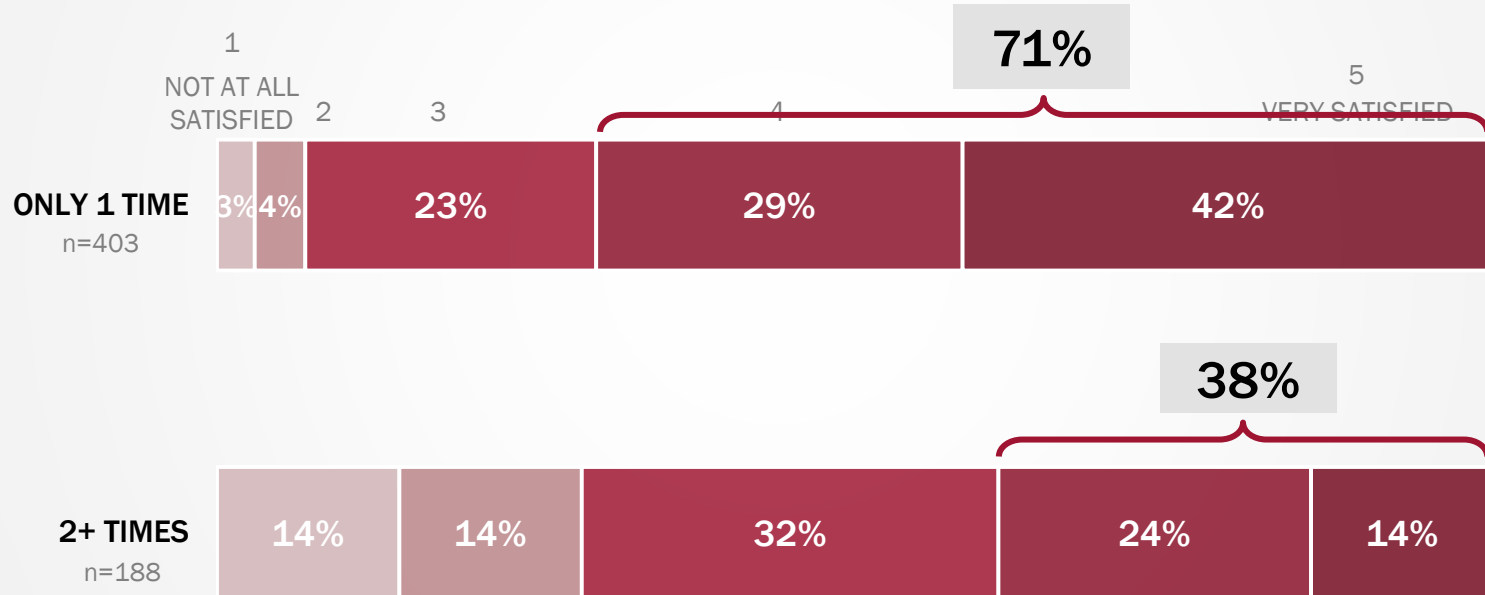
Doing a more effective job at handling calls during the first contact could have a significant impact on satisfaction and performance scores, especially through customer in-bound calls.

4

**Customer care improvements
offer real opportunities to
change perceptions**

Among respondents who contacted HRSD in the last year, satisfaction ratings of **CUSTOMER CARE** need addressing

Q21. Overall, how would you rate your level of satisfaction with customer care?



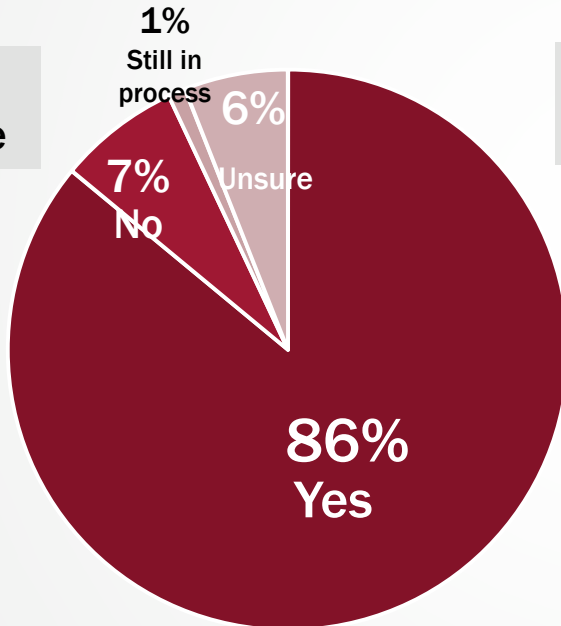
90% of contacts were via telephone (Q22)

Lower knowledge, younger, lower income, and non-white respondent also give lower satisfaction scores

Resolution doesn't happen all the time

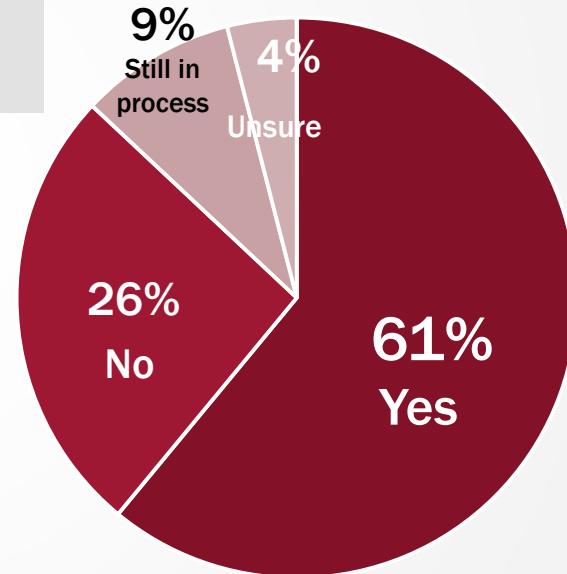
Q24. Was this issue resolved or the question answered to your satisfaction?

Contacted
Only 1 Time



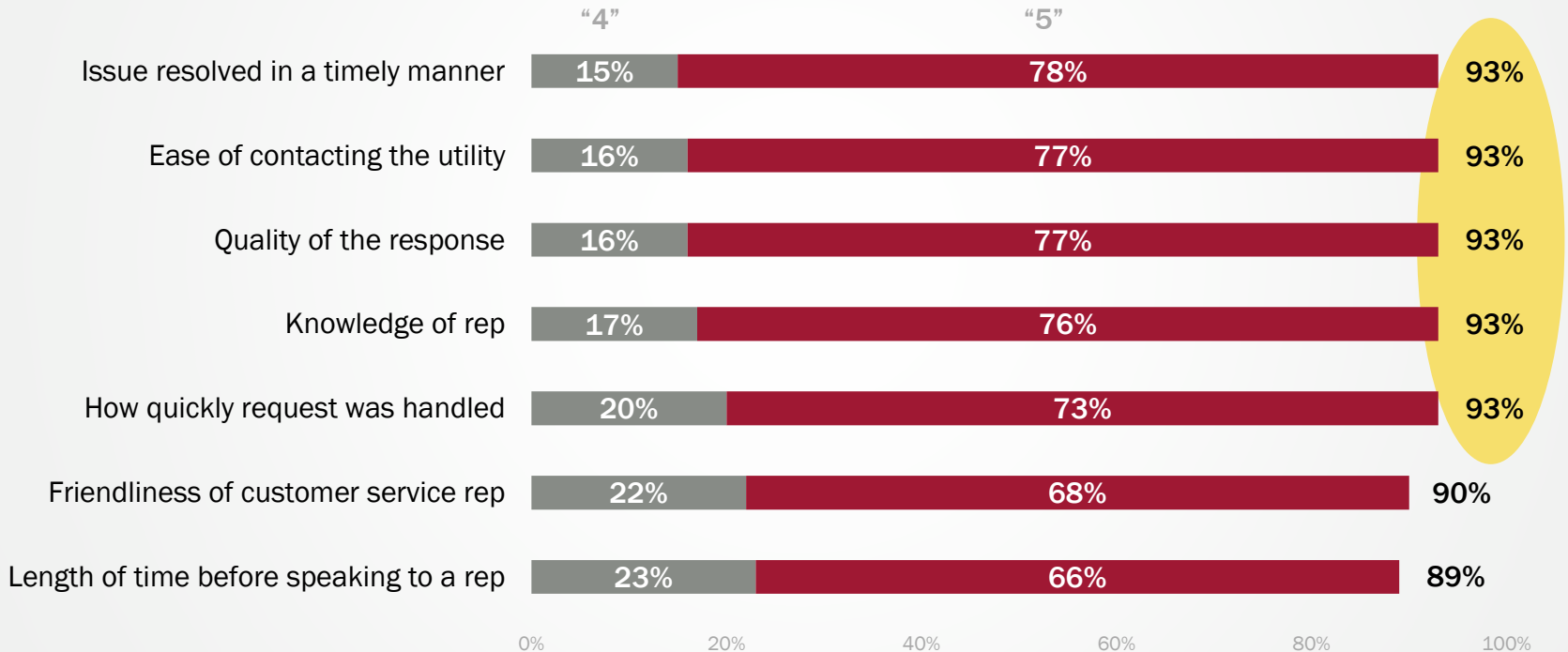
n=403

Contacted
2+ Times



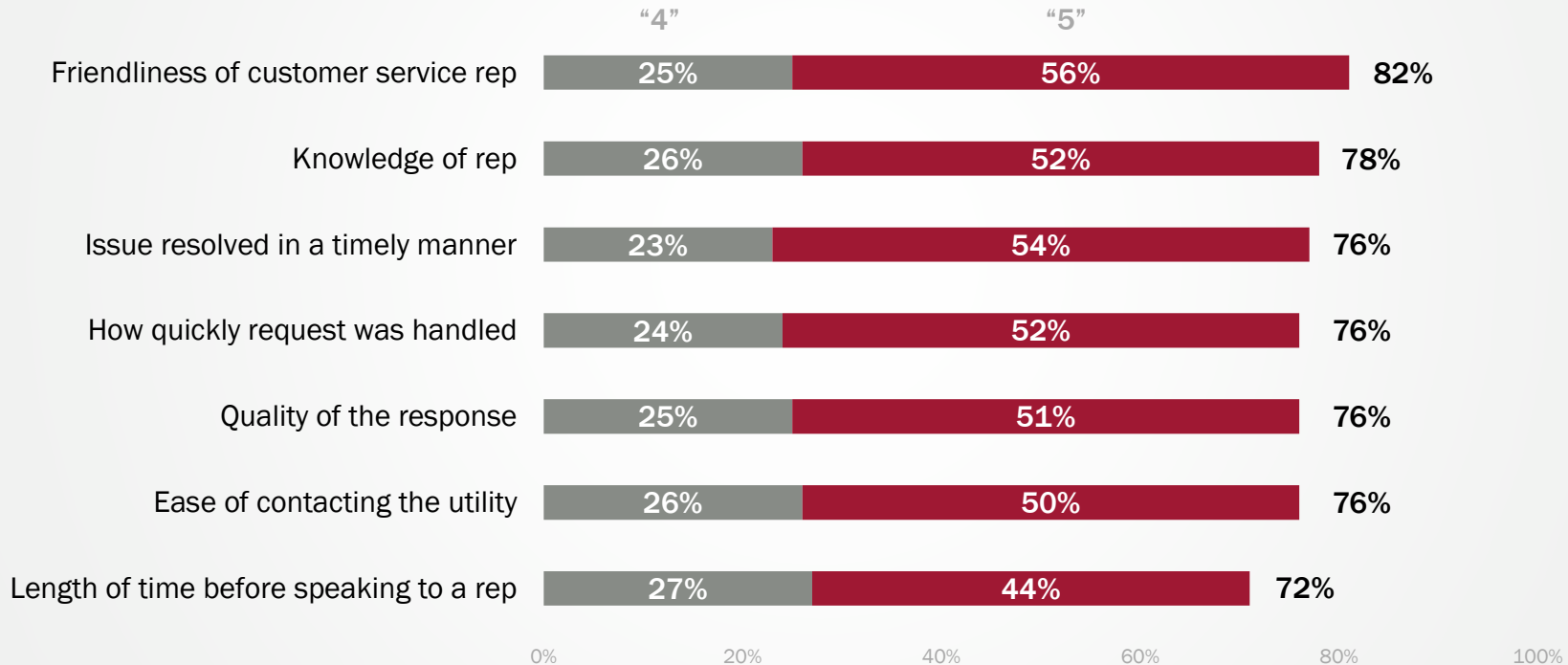
n=188

Everything is **IMPORTANT** when it comes to interacting with any utility's customer service department



HRSD customer care **SATISFACTION** scores are admirable

Top two box scores over 70 are considered strong



None of the gaps between **IMPORTANT** and **SATISFACTION** are problematic (you can never meet the ideal)

CUSTOMER SERVICE: ALL RESPONDENTS	IMPORTANT	SATISFACTION	GAP
Friendliness of customer service rep	90%	82%	16 pts
Knowledge of rep	93%	78%	15 pts
Issue resolved in a timely manner	93%	76%	17 pts
How quickly request was handled	93%	76%	17 pts
Quality of the response	93%	76%	17 pts
Ease of contacting the utility	93%	76%	17 pts
Length of time before speaking to a rep	89%	72%	17 pts

n = 2,191

n = 1,243

Q25. How important to you are the following aspects of a customer service contact for any utility?

Q26. How satisfied are you with the following aspects of your customer service contact?

Not surprisingly, respondents with 2+ contacts in last year have significantly lower **CUSTOMER CARE** satisfaction scores

SATISFACTION SCORES OF 4 AND 5	ONLY 1 TIME	2+ TIMES
Friendliness of customer service rep	86%	69%
Knowledge of rep	83%	56%
Issue resolved in a timely manner	83%	49%
How quickly request was handled	83%	49%
Quality of the response	80%	50%
Ease of contacting the utility	80%	56%
Length of time before speaking to a rep	75%	54%

n = 392

n = 183

IMPLICATION

Your overall delivery of customer service scores well among respondents, except those who had to contact HRSD 2+ times in the last year.

Addressing customer issues the first contact should greatly improve ratings and scores.

5.

Customers rely on the website but are not huge fans of how it works when it comes to paying the bill

IMPLICATION

Fundamentally, the website is being used and overall satisfaction is strong. However, the bill paying component is not universally liked, and those who have to contact HRSD are less satisfied with the website, suggesting some review of the information architecture, bill payment functionality, and site menu is needed.

6

Communicating more effectively about environmental education and research efforts can impact overall ratings for HRSD

Customers strongly agree that it is **IMPORTANT** for the state to protect public health and are waterways

Q39. How important do you feel it is for the Commonwealth of Virginia to protect public health and area waterways?



n = 2,191

No significant demographic differences appear on this issue.



As mentioned before, knowledge about HRSD is limited

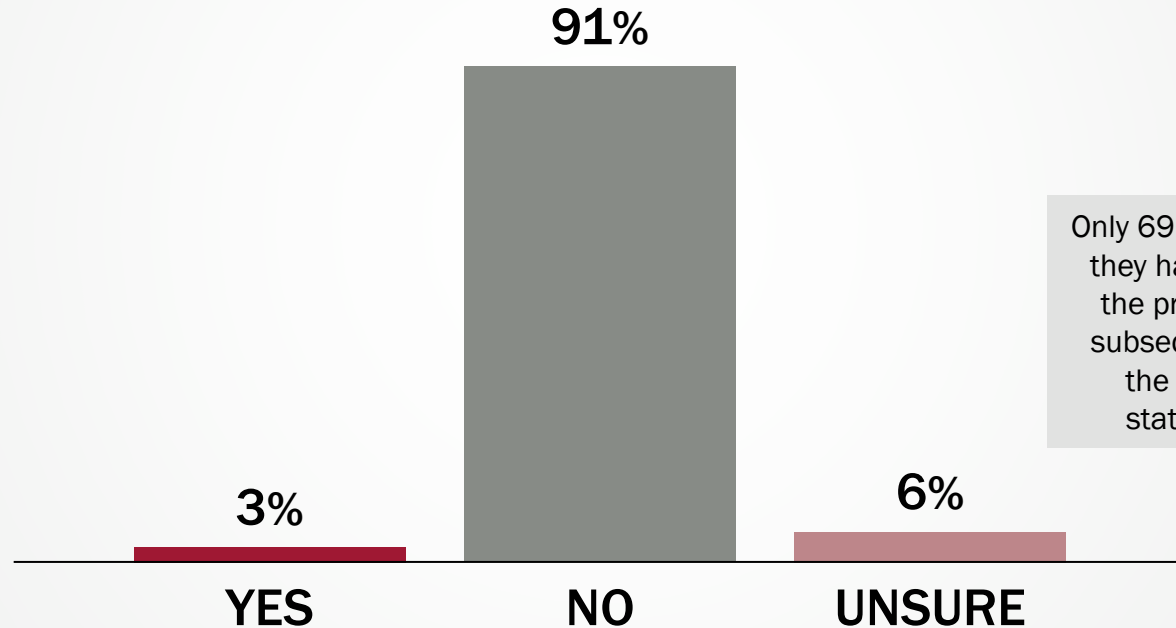
WHAT DOES HRSD DO?	Correct	Wrong
Provides wastewater treatment for several cities and counties in southeastern Virginia.	86%	14%
Is responsible for garbage collection throughout southeastern Virginia	71%	29%
Treats the drinking water that comes into my home	41%	59%
Provides environmental educational materials, lesson plans, facility tours, and a speakers bureau.	40%	60%
Offers environmental improvement grants and scholarships.	28%	72%
Offers an apprenticeship program	17%	83%
Provides area boaters a free pump out program during summer months	13%	87%

Q40. We want to understand your level of knowledge about HRSD as an organization. Which of the following statements are TRUE about HRSD?

n = 2,191

The SWIFT project has virtually no awareness

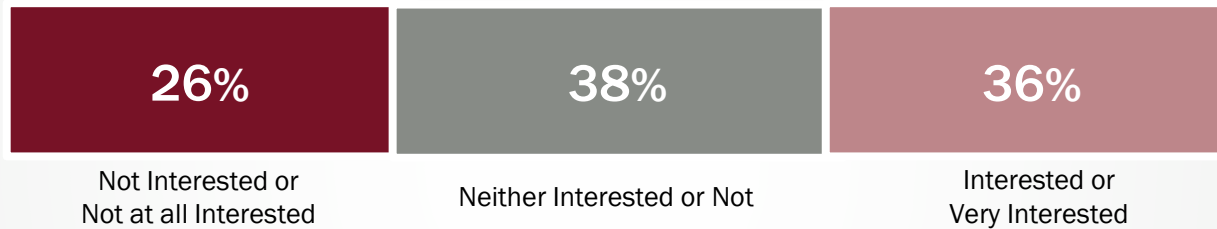
Q34. Have you heard of HRSD's SWIFT project?



Only 69 out of 2,191 indicated they have any awareness of the project. Therefore, the subsequent question about the FAMILIARITY is not statistically valid data.

Only about one in three express much interest, but more than half think the SWIFT project is important

Q36. What is your level of interest in the SWIFT project?



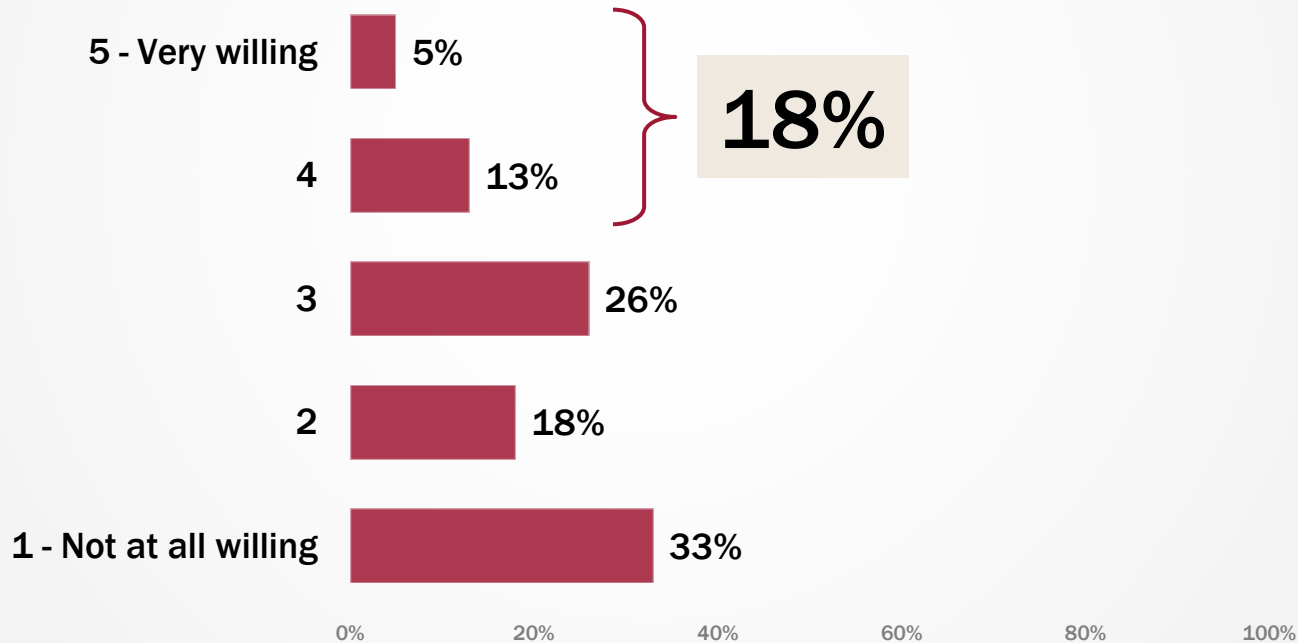
Q37. How important do you think it is for HRSD to focus on projects such as SWIFT?



n = 2,191

Only 18% are interested in paying more for HRSD to fund ENVIRONMENTAL EDUCATION EFFORTS

Q43. How willing would you be to pay slightly higher HRSD fees in order to fund environmental education efforts?



Recall that HRSD is known mostly for dealing with “water”
(when asked at the beginning of the survey)



n = 2,191

At the end of the survey, we ask again for top of mind words and the list shifts...



n = 2,191

“Environment” and “education” appear, and “treatment” is mentioned more



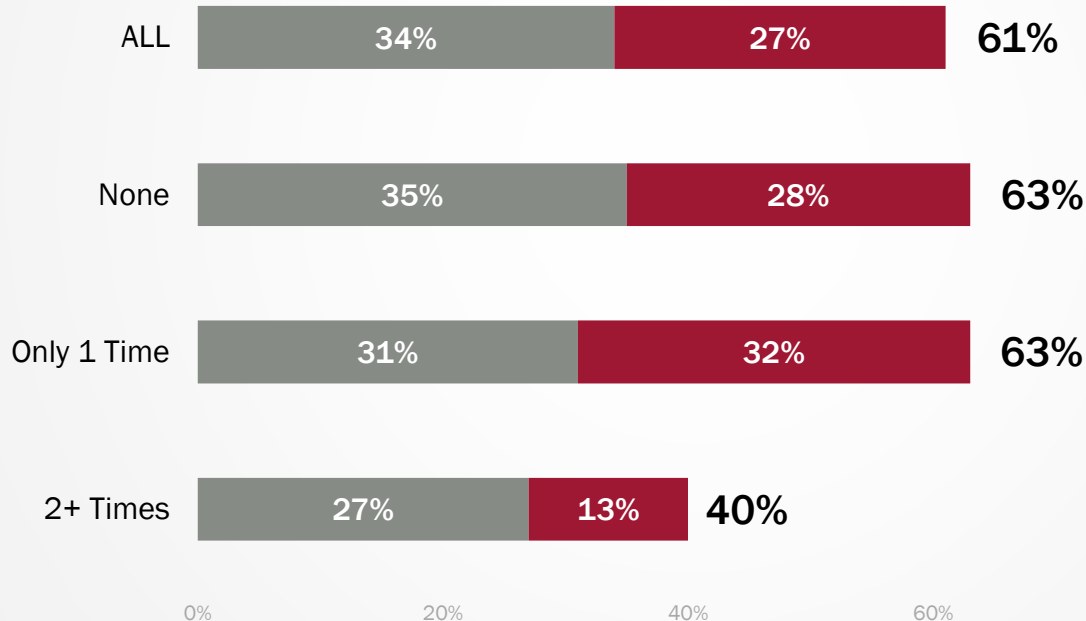
n = 2,191

IMPLICATION

Communicating more about HRSD's environmental initiatives and the difference the organization makes to the waterways of the region will likely enhance the public's perceptions, attitudes and behaviors significantly.

Satisfaction with HRSD's efforts to protect waterways could be improved (goal is scores of 4/5 over 70%)

Q41. Based on what you now know, how satisfied are you with HRSD's efforts to protect public health and area waterways?

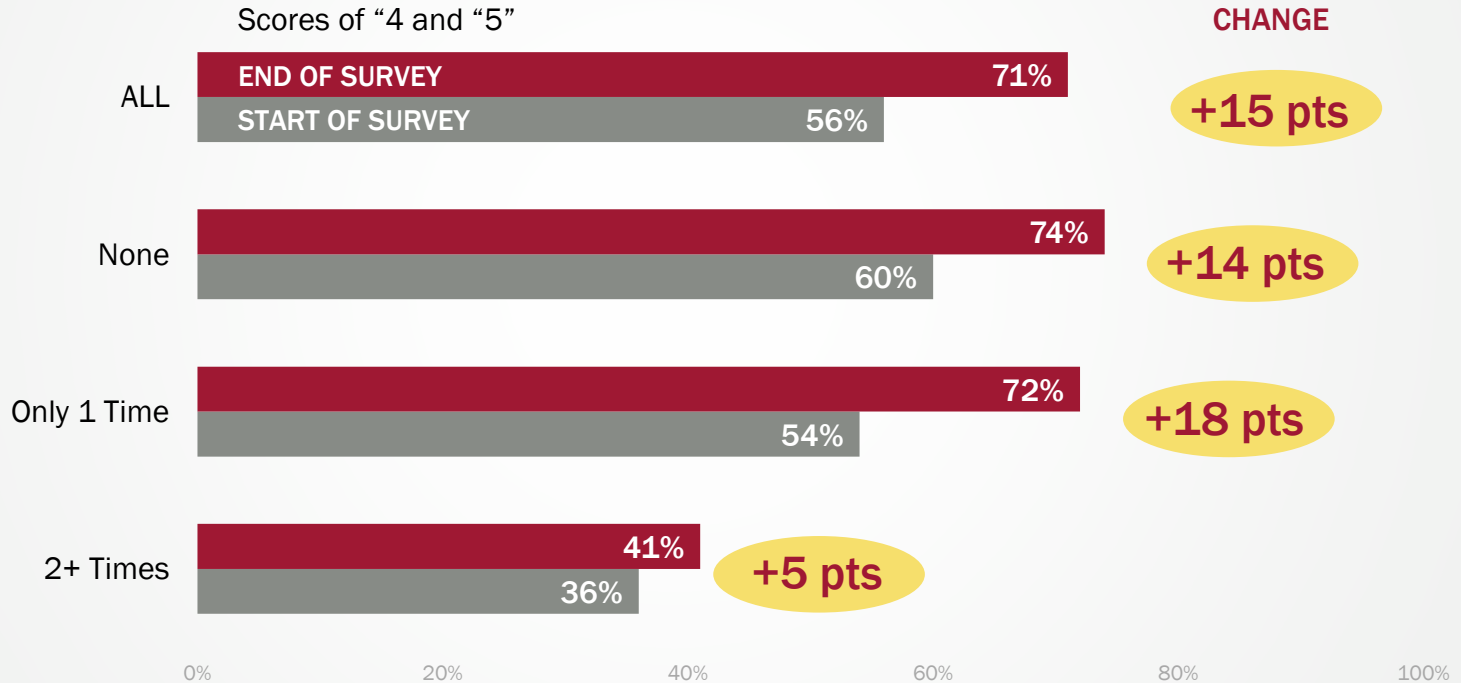


DEMOGRAPHIC DATA

Older, white customers give significantly higher scores.

Lower familiarity and knowledge customers give significantly lower scores.

SATISFACTION scores also increase by the end of the survey, indicating that educating customers has an impact



Q8. Based on what you may know about HRSD, how satisfied are you with HRSD's services overall?

Q43. Based on what you now know, how satisfied are you with HRSD's services overall?

n = 2,191

IMPLICATION

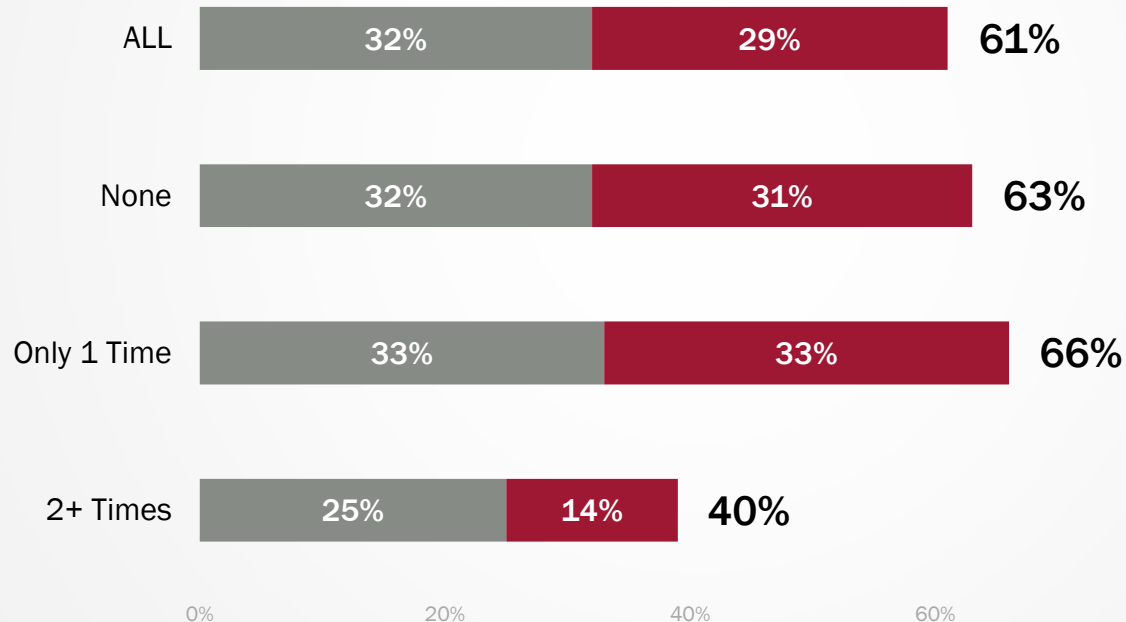
The shift in satisfaction scores, even among the least satisfied, indicate the potential of enhanced and more effective communications for HRSD.
The more customers know, the better.

7.

**Further evidence that
communications are key
appear in the findings about
communications preferences**

Overall satisfaction with HRSD's **COMMUNICATIONS** are less than ideal, especially for those with 2+ contacts

Q45. Overall, how satisfied are you with HRSD's communications with you?



DEMOGRAPHIC DATA

Lower familiarity and knowledge customers give significantly lower scores.

Those with 2+ contacts want more information from HRSD

Amount of information received from HRSD?	ALL	None	Only 1 Time	2+ Times
Too much	3%	3%	4%	3%
Just enough	86%	87%	86%	71%
Not enough	12%	10%	10%	26%

Q46. Which of the following best describes your feelings about the amount of information you currently receive from HRSD? I receive:

n = 2,191

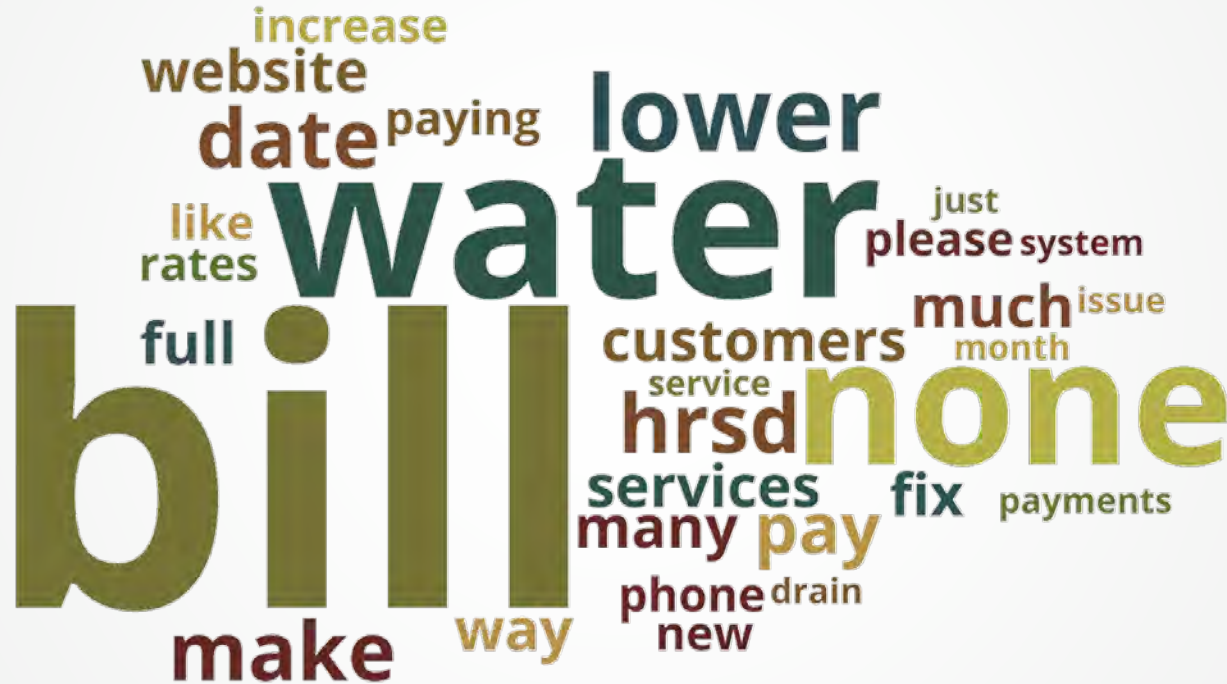
No particular topic is seen as more interesting than others

TOPICS OF INTEREST?	YES
None of the above	31%
HRSD construction updates related to your area	31%
Public health education related to water and wastewater	30%
News and updates about SWIFT	30%
Ways the community can reduce our environmental impact	30%
Chesapeake Bay restoration	28%
Volunteer efforts with HRSD to make a positive impact on the environment in your community	19%
HRSD operational news and updates	18%
Upcoming HRSD educational events	5%

Q47. Which possible future communications topics would you be interested in receiving? Select all that apply.

n = 2,191

Suggestions focused on improving billing issues



Note: All verbatim comments are available in the Appendix

n = 2,191

IMPLICATION

The research findings are clear that **communicating more about a variety of topics** can help inform customers and improve perceptions and attitudes towards HRSD

SUMMARY

More amount and more effective communications about HRSD can make a difference for the organization, as can improving how customer inquiries are handled.

HAMPTON ROADS SANITATION DISTRICT RESIDENTIAL SATISFACTION STUDY 2018

Q18. Why are you dissatisfied with making payments through HRSD's website?

I wanted to make a past due payment but the program kept directing me to the whole amount that is due at the end of the month. I eventually called and made the past due payment by phone.

The website isn't working and it says there is an error with the webpage loading. So I can't currently pay my bill online

The payment of bills website is temperamental. I keep getting Session not valid (exact words) alerts. I have called and the clerk answering the phone calls don't have a clue, thus I assume they ignore my voiced concerns. I ask for management and the clerk hangs up. I am ready to go back to mailing payments.

It doesn't work with safari I use my phone to pay bills

The navigation process is cumbersome.

I've had problems logging and name spelling incorrectly.

Not user friendly.

When I want customer service to help me with the online payments, it is after their business hours. I have a job with equally demanding hours. Having someone in customer service to provide this type of support should be expected not wished for.

It is a poorly designed website and the payment stuff has changed multiple times in the last few years. Please use something modern like Stripe or Square to handle payments.

the website didn't let me put cars information for a long time. when I called the office, the person was very indifferent simply stating it's my computer problem, not on their end.

Changed the billing system without noticed so customers would incur a late fee when reverifying direct payment

It is difficult to login

Too many steps

Not as easy as it should be.

Because I would like to pay through my bank services

I do not like the new invoice system, I liked the old system much better, it was much easier to navigate and use

when the online payment service was switched this past year the company failed to properly notify me. Therefore, I had to call in order to get it all straightened out wasri g my personal time.

The website is not at all user friendly. It is difficult to navigate.

I can never log in, I have to have all of my bill information in front of me which is a hassle. Other companies allow a user name that actually works where I can view my account

Don't like the extra fees to make payments online.

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

Take forever for the page to load and the password information is too complicated for a Utilities Company.

Unable to complete payment transactions consistently

Difficult to get to payment screen

Can't set up automatic payments

Brok

Am charged to go through western union

It's a totally different site you have to go to and it's not user friendly

I don't like the new system and preferred the old system.

I tried to set up automatic payment several times in the last couple years and it never worked.

When they changed the site, I was actually unable to get to my account. I had to call and set up another online access account. It still to this day makes me change the password every time I go into it then I have to contact customer service

Doesn't save info

It has been a very complicated process..It takes a while to work thru it....It is the most difficult of all other bill paying that I do.

It's difficult - I prefer the old way better

Difficulty using an agent to pay i.e. my check free. Changes in availability to make on line payments. Charges for using some agents to pay.

Difficulty accessing acct

The process is cumbersome. There are too many screens to be able to pay it quickly.

Too complicated.

It's confusing and inaccurate. I don't have this issue with Dominion Power. Even though I think Dominion is over priced, their billing system is easy, good customer service, and they give the appearance that they are working on green energy.

Too confusing. Too many IDs/passwords

It kicks out my auto payments every month and gives me a late fee.

I can never log in to the account online. It appears to be two accounts for me when I log in, I can pay but can never see my statement.

I need the option of n/a because I don't use the website for my payments. I send an echeck from my bank

It's hard to print a confirmation page. Not usually sure if the payment goes through because the site can be slow. Had difficulty logging in and changing/requesting log in information.

I am in auto pay and it randomly stopped working! Now I have late fees... and had no notice that it was so delinquent.... nor do I have an easy enough time trying to get back in to my account without some billing information that would only be via paper bill and wasn't in my emails.

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

It was not an easy process to figure out.

They need to accept credit card payments, specifically AMEX

Not user friendly

Sometimes it's difficult. Sometimes it doesn't load properly because I'm using a tablet. Just recently with the new update it has worked. But which login to use is still confusing.

i was double charged one time

It seems very difficult to log onto the customer's account to manage the account or enter a sub-meter reading.

Need the same passcode for hubs and hrsd. I get them confused

Because I shouldn't have had to. I had autopay set-up for years. For whatever reason, it was cancelled in December (?) of last year, without any sort of warning or notification. Since I didn't know this had happened, my bill went unpaid for months.

previously fees for paying online without autopay.

Too many steps

Third party payment online service is complicated

Initially the whole process was confusing. But I did register and make payments online. But I forget which payment is being paid via which method. When I try to figure it out, getting to the answer is not simple. I'm always afraid I am about to change something I've setup or did change something that was setup. The option I chose is not that apparent when getting into the billing to find out if I am charging via my Credit Card or paying via my bank. As I get older, I will be depending on prior arrangements and don't want to be second guessing how my payments are being made.

Outsource vendor handles payment

Not the most user friendly site

I HATE the fact that the bill date changes each month. Also, the link in reminders that come in email take you to a billing system that only allows you to pay that day - not schedule in the future. I have to back out, go to the main website, find what I need . . . Waste of my time.

Too difficult

additional fees for online payment

**HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY**

If payment methods falter the autopay stops but notification of that is delayed, without explanation until receipt of a you're late notice when you have to investigate. It would be better if an automatic email was sent listing what has happened to the autopay arrangement

There seems to be two links and I have two passwords and not sure which is for which.

It's extremely confusing to figure out where to go to pay the bill.

I can never sign in to the website and actually see my bill

hard to login

The site sometimes locks up and when it does I can no longer get in. This has caused payment lapses and me to fall behind. The billing system is also an issue. Some of Isle of Wight County pays the bill along with the water bill. Some locations do not. Would be so much easier to be included in the water bill. One step all done.

Every time, when I try to log in, it gave an error. I know the username and password but it always says incorrect. The web side is totally clue less. I just feel annoying, when I open this website.

I have to spend money

It worked great the first few times, but now I've tried 3 days in a row to pay this bill and the website crashes after I choose Pat selected invoice.

i can't get into my account and have to do the one time payment every time

No cc option

UNABLE TO LOG IN TO MY ACCOUNT TO MAKE CHANGES IN MY METHOD OF PAYMENT AND OTHER THINGS. THIS HAS BEEN SINCE YOU MADE ALL THOSE CHANGES TO ENRY PROCEDURES (SO CALL;ED SECURITY CHANGES)..

There are 2 sites - I have two accounts to access my bill. I dread logging on every month.

Very difficult to navigate

Technology aspect of how the user name and password tend to not function properly even with correct information

Now taking this survey, i can apparently do it by text message? Did anyone tell me that?

Hasn't been working through my apple products. I've had to pay via phone which I hate

Difficult to navigate

Hard to sign in website not user friendly

It always seemed to be under construction or otherwise inaccessible.

For years I paid my bill through my bank. last year you switched systems and no longer interfaced with banks. I was not told this so I received a delinquent payment notice because for years you had been on auto payment through my bank. I currently have auto payment on through your site but I do not like stand I prefer it though my bank.

You screwed up my automatic payment schedule and I could not repair it online so I pay each bill separately

N/a

**HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY**

Every couple of years, HRSD changes the bill paying system and every time I wind up missing a payment. I originally set up automatic payments; now I have to go on-line every 3-4 weeks and pay. When I called to get help setting up automatic payments, I was told to go to the web page.

Won't save my payment option information

It's not user friendly

They changed my auto payments and having much difficulty getting it redtaishrf and can never talk with a person

I pay a water bill, a sewer bill, and HRSD bill. All based off one water meter reading. I know this cannot accurately reflect what is returned to be treated.

site often seems down or fails to process payments on the first attempt

Seems more complicated than most

Website/account is not user friendly

Must have account number no other access to account and confusing

When making or scheduling a payment there is NO printout with a confirmation number. Or maybe it's the new website. I want and need a printout for MY records.

I suppose it has gotten better recently actually since the process seemed to change.

This new system requires a lot of information entered and has returned payments account not found from my bank

When they changed providers a few months ago, they provided notice several months before the move, but none when you could actually go in and update your information. This caused a late payment because it usually automatically pays.

It's always something going on. Can't ever remember the two apart.

I'd rather pay with bill pay at Bank of America but that option wasn't available last time I checked

I have the app but when I go to sign on it is challenging. That you want my email & a password or my log in and password and I never know which is which. It's confusing.

Account is often difficult to pull up in system

The HRSD app does not work properly. There are always system issues when trying to pay online through the HRSD website.

1. It has been difficult or not possible to set up automatic payments online.
2. I have been switched to paperless billing by mistake or accident, and the email notifications have been unreliable, therefore I have been subjected to late payment fees.
3. HRSD has been very rude to me when I call to try to clear up confusion on why I got late payment fees
4. I have been unsuccessful in getting paper billing re-established so that I can be sure I am notified when a bill is due.

The log in never remembers me. I can't schedule it to be automatic. The bills don't explain very much.

Q33: Why are you dissatisfied with HRSD's website?

**HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY**

The new website is difficult to use. I couldn't pay the past due portion of my bill online. It kept prompting me that I needed to pay the whole amount that is due at the end of the month. I eventually called and paid the past due portion on the phone.

Bc every time I try to pay my bill there's ALWAYS an issue with processing there for I have to spend 15-20 mins on the phone just to pay my bill!

As previously reported, the website has bugs and is temperamental. I don't get a smooth transition from identifying the bill online to inputting the financial data to make payment. Sometimes the system hiccups. Today, I received Session not valid (exact wording) alert after inputting my credit card data. I am very scared to conduct online payment with the website as it has problems, and I may have to go back and mail my payments.

It crashes and now won't work with safari which is insane because I always have used it before and it has worked since September and won't work now

It is not easy to find what you need. And the ease of resetting my password is not simple.

Password reset and username do not work

We are a property management firm with multiple accounts. The website is ridiculously slow, times out on me often, and doesn't even list my accounts in numerical order. The paid/unpaid invoice search options are useless with multiple accounts. I despise your new website.

not as easy to use

It is not user friendly, need 2 different passwords to access different information, confusing

Online fees for credit card payments.

Not robust enough

I was unable to navigate properly. The page kept freezing so I could not get to the bill payment page for a few hours once I did had to put credit card info in 4 times before it accepted my payment

I had to change my password twice in the last month or so. It would not accept it.

not intuitive enough to easily locate what iw as looking for

It is not terribly usable or modern. Bill payment is pretty bad.

Very difficult to navigate. Makes no sense whatsoever. I had to call to change my credit card.

I could not recall my log in info-which I realize is my fault, but I recall the process of resetting it being very difficult.

Even if I have no charges I receive no bill stating so

It's too difficult to find/download invoices

Not the easiest to navigate

It's difficult to login

Too many steps

Hard to pay and contact company

**HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY**

There is no adequate way to compare billing cycles, determine if the meter was actually read or estimated, and there is no explanation for sizable variations in billing amounts or billing periods.

I'm not

HRSD website does not offer important information on how to contact the overall corporate office when there has been consistent billing discrepancies and charges. No solution is given to the customer.

Not easy to navigate

The payment data was not available for my latest payment. The due dates for my latest bill indicated the payment was past due when it was not. CAUSED me to have to call customer service. IF THE INFO HAD BEEN ACCURATE I WOULD NOT HAVE HAD TO CALL CUSTOMER SERVICE. Fix the web site to reduce calls. BTW the info provided by the telephone system was accurate and thus DIFFERENT from the web site.

login is confusing

It is difficult to pay my bill. It continually doesn't recognize me. I have to enter info. several times (same info.) then it finally goes through. Have called customer service, they have given me steps to follow--which I have done. Still there is a problem.. Other companies have much better online bill pay. I hope you can fix yours. Otherwise, I will go to having you mail my bill.

Site not user friendly. Payments has increased fees when compared to other utilities. Should be free

Hard to get into...login credentials are strange compared to my other sites. Payment changes have large delays and can result in an unpaid bill without notice.

Look and feel. Too busy. Old. Not intuitive. Not engaging to ME.

Hard to navigate, asks me to sign up for a new account and new process what feels like every time I log in.

Prior to updates it was horrible. It's improved with customer functionality.

Very confusing what can be clicked on to get where I need to go

Not easy to find and use

not easy to use

IT is difficult to get to what I want to accomplish...which is...JUST PAY MY BILL!

Difficulty navigating

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paying a bill was overly confusing

difficult to navigate. need a big PAY MY BILL button that is clear. people go to start, stop, report an issue or pay

not easy to access info

They make it difficult to pay a bill quickly!

disorganized. Not user friendly

Very difficult to look at historical billing. Did not have all records. Very poor site.

The website is very extensive and disorganized. I have to read or click through too many links before finding one that applies to my issue.

i'm not

The need to register this spring was difficult without a person online to walk me through it. I thought I had done it and later learned that it had not gone through.

need to update screen programs and change menu options. Also when inquiring what current balance is and when next billing period will be.

I have to call to get a new password. The site does not keep accurate account of my password. Every time I sign out and try to sign back in it tells wrong password. So I can't access my account from the website.

Difficult to navigate. Tried to get a paper bill and although I have requested it MANY times on the website - NO luck. No paper bill!!!!!!!!!!!!!!

Password kept coming back incorrect till I had to change it and register. I've been a member for 5 years, why am I only being asked to register NOW?

Not easy to reset password. Too mean steps to follow

It is confusing on what is my required payment every billing cycle. There needs to be a spot somewhere where it says you owe xXXX please pay by XXX day

Confused

When you make a payment, you have to enter your account number, but there is no way to confirm that you are making a payment towards the correct account. What if I make a mistake inputting the account number? Also, you can't set up any payment arrangements on the website if needed. This company appears very dated.

Can't pay from any Apple products

Can't get required information

The fact that I had to use it at all. I have autopay for a reason.

Ever since the launch of the new sight I get errors and am unable to access my account. I now have to call in every month in order to hear my balance and pay my bill. It is a pain.

Can't efficiently pay bills. Very cumbersome; not user friendly at all

At times difficult to navigate

not possible to find the place to enter submeter readings Talked to customer service, they could not direct us either

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It's not a good user experience. It is confusing to navigate. I am a front-end web developer, and I have a hard time with it.

It never lets me log in

not intuitive. not user-friendly.

It's not intuitive.

Already did this. The site locks up and when it does, I can no longer access my account.

it is incredibly hard to find the information needed to submit the submeter readings. There is a feedback loop when trying to sign in that never actually signs you in.

It is ALWAYS an ordeal to do anything on this website- it is very difficult to get to the place you need to be.

when I forgot my password, I found it very difficult to re-set it

Not easy to navigate

Navigation is pitiful

It will not let me pay my bill online. When I report this to the office, they say IT will take care of it. All IT does is block my old account sign in and make me create a new one. Still cannot pay my bill on line. HAVE to go in person

The log in process is clunky. Locating your bill is a hassle and not intuitive. The new bill process has a difficult time with ebill delivery.

Was not contacted about website and account changes

The font is too small. There is so much going on on the home page, I always had to search for the bill pay link. SO thankful I figured out how to set up text pay! It's a beautiful thing!

Due to recent so called security changes I have been unable to log in to manage my account.

Hard to navigate

Very difficult to navigate

Login page

Not user friendly

Not user friendly in paying bill

I said earlier.

There's too many redirects. Manage my account, pay my bill, etc. There should be one link to click to login to the account and access all bill paying options there.

I paid my bill online 2 times so far, when I went to pay it recently it would not let me sign in

I'd love to put in my submeter reading like we used to do on the JCSA site, but I can't.

Hard to access

Cannot pay bill without additional cost.

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Unable to change credit card info to update expiration dates.....should be easy!

There's a giant sun as soon as it loads that's very hard to look at. The text/graphics are hard to read (the text needs a black border if you're going to put it on a light background). It's very chunky design. It doesn't meet expectations like a login button should be top-right like every other site not in the middle or buried. If you're going to have the page scroll layout you need to have the jump buttons.

It's outdated and doesn't provide much information.

I want to set up automatic payments. The website kept "forgetting" me. I put in a password, wrote it in my planner, the next time I went to pay, it did not work. It said I had not set up an account.

It's not user friendly

you changed systems and it was a pain to get back in so I gave up

Will not let me pay my bill and that stupid security crap you have to go through just to get to your account. Made me revert back to you mailing my bill because I don't like the hassle of your website

The new website was hard to get used to. The big problem was that I could not log on. In order to log on and to get a new password, I needed my account number. I couldn't find any old paper bills and didn't know my account number. It was a catch 22 that took a bit of time and effort to resolve.

Not user friendly

Too many changes

Hard to navigate

It is confusing. I am either directed to give my email and a password or a log in and a password. It seems to never be the same. I am half tempted to send a check instead of going on the website or app.

There are always system issues when trying to pay my bill.

It is not user friendly

It has been difficult or impossible to set up automatic payments using only the website.

I am dissatisfied because I had autopay set up, and for some reason it was canceled and I was never notified that it was canceled which led to my water being turned off. I often travel out of the country so if the system is not reliable, and does not provide notifications that there is an issue then I cannot do anything about it. You try being in a different country for two weeks, traveling on a plane for over 14 hours to get home to find out your water is shut off without having been notified that this was going to happen, and then both the online AND automated phone payment systems being down AND NO ONE else able to accept a payment so your water staying off for an additional two days due to a lack of inefficiency by the company who didn't notify you there was an issue in the first place.

The mobile version times out quickly and the invoice function does not work well. Additionally, the authentication feature is cumbersome.

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Q38. Do you have any overall comments for HRSD about SWIFT?

I had read about the program in the Virginian Pilot but didn't recall the name of the project. It sounds very interesting.

It seem like a worthwhile future program that would be very efficient as well as being very economical.

Idk y I have to go through all these questions just to say how mad I am about the online pay!!! None of this has anything to do with my issues y the damn questions

Survey TOO LONG should say it will take 10 minutes. Stopped reading questions 3 questions ago.

In light of limited water resources, we must seek technologies that other countries are using to purify the water for drinking. Purple water is fine, but HRSD must pursue the next phase of purifying water.

N/A

Don't care

Nope

Making improvements is always a great idea. Keep it up.

I think it is a great idea

If there is no way to filter out viral or prion particles then I wouldn't recommend it

Not at this time

Sounds like a great project

it shouldn't raise out rates

Seems like a good option for creating a sustainable water source in the area.

Your logo question may not come out accurately. All of my communications have included both logos on it.

NO

No

Thanks

no

I don't trust the premise, the process, or that it's not monetarily motivated rather than environmentally motivated. I would hope that wastewater is not chemically contaminated when it's dumped back into the aquifer.

Great initiative

Good idea

no

Very concerned regarding chemicals that are used

N/a

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NO

No

NA

NO

No

I was a wastewater and potable water treatment operator in California for 25 years. All aspects of conserving water and minimizing environmental pollution and impacts are important.

Keep it up

Not sure about the need

Sustainable water sources are required to ensure future needs are met

I'm concerned about the fact that you're using ground subsidence to justify this. Its pure conjecture that injecting water into the aquifers will truly help subsidence. The injection process may help you get rid of your by-product and meet Federal regulations. However, you lose credibility with me when you say this is best for the subsidence and flooding issues. Don't present yourself as a hero while you try to sell a difficult to accept concept to people in this area. Be honest.

Great company. Any positions opened?

No because I wasn't aware of this before now.

No

no

No

no

Not at the moment

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Good luck!

Not at this time

No

Great initiative.

I like the idea but a little concerned on how that will affect my bill.

No

none

We use treated water system in our home.

I like the idea of this plan

not at this time

no

none

No

None

None.

No

no

All I see is the fact that they are trying to add a lot more chemicals in our drinking water and that is horrible.

Innovative and necessary.

forward progress with minimal financial impact to the consumer.

No

Thanks for extended payment plan options

If this effort is as successful as it claims I believe that it may be an extremely useful approach for dealing with municipal waste. I commend HRSD for pursuing these efforts.

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Thanks

No comment

No

No

sounds good

I want to see the research on SWIFT before making any decisions. Please let me know how I can do that?

No

No

N/A

Think it sounds like a great program. Hopefully, it will not increase the bill

we hope that HRSD will put more information about SWIFT out in public such as social media, bills etc

NO

What are other options? How bout cleaning out storm drains etc I often see brush growing out of them. I also see people dumping toxic stuff.. how bout lettering at each drain stating no dumping?

No

no

Keep working on it. Clean water is good for humans and fish in the water resources.

You do what you must to give best water to the people and keep environment safe

I would have to research more about SWIFT.

no it is self explanatory and needed

keep up the good work

No

No comment

No

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No

Na

No

Sounds great

No.

no

None

No

No

Provided that it is a sincere effort that betters the environment and helps the people and animals, without causing any detriment, even financial to the citizens, then yes keep going.

I hope this initiative doesn't raise our prices.

I think it's a great initiative and would like to receive more information! It is imperative that our cities focus on local waterways and how we, as a community, can combat water pollution!

NO

none

No, not really sure how this project is different or an advancement over already existing water purification processes.

I appreciate opportunities to contribute financially to green initiatives through HRSD.

no

N/A

No

I would like to see it evaluated from a professional voice that is not directly connected to the utility, such as the Chesapeake Bay Foundation. I trust them and their opinion and would support SWIFT once I knew that it was truly for the public good.

No. Due to have no knowledge about this project or how its going to affect me and my highly cost water sewage and trash bill.

Sounds great Thank you for caring about the environment and sustainability

Keep up the good work

no

No

No

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I was concerned about the water line fee for protection for my service. If this is what you are referring to, I had some company in the past contact me. It was a little nervous because I am on a fixed income. I understand that these incidents happens and it is important to have protection. Please me know if this one of the projects you are referring too. Thank you Ms. Sandra Wiley

no

Sounds like a very valid project.

n/a

no

no

No

no

NO

No

No

No

I think this type of initiative is necessary for our future water conservation

Any initiatives that focus on correcting or dealing with human impact on the environment are critically important.

We have our own water filtration system at home, so the current quality of the water is quite satisfactory to us already.

N/a

No

no

Good job!

no

None

NO

No

No

It sounds like it's just going to raise my bill. You should figure out a way to do it if you want to, but get funds from somewhere besides customers that do NOT want to contribute.

No

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go for it!

no

No

I think efforts to minimize our impact on the environment are very important and that it is our duty to ensure this is an ongoing effort. If the Swift project goal is for this purpose, I support its undertaking.

It sounds like a good idea. As long as it's cost effective I think it's great!

No

I would not drink water from the SWIFT purification format

Sea level rise is a big concern but I don't think most people know about it or really care because they think it's someone else's problem. Good awareness and education could help

No

No

none

No

N/A

If SWIFT results in an increased bill I am not happy

-HRSD services are priced too high for Isle of Wight County. HRSD should strive to lower and maintain service price.

-Also HRSD incorrectly billed me twice during my 7 year tenure with their service. Problem response activities required entirely too much effort on my end. Additionally, once resolved I had to specifically call back to remove a late fee that resulted from HRSD billing error.

-HRSD should lower price, correct customer experience, billing, and customer service. These areas should take priority over SWIFT.

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Thanks for good service

It sounds disgusting and a way to contaminate the drinking water for hampton roads.

No

Please preserve yhe Chesapeake bay and its surroundin% bodkes2of water for future VA residents

No

N/a

HRSD NEEDS TO ALWAYS MATURE IT'S PEOPLE, PROCESS AND TECHNOLOGY.

No

Not at this time

NONE

A good initiative!

I hope it works.

They need to not charge a person to pay the bill.

I'm not familiar enough about it to comment. I'm sorry!

No

No

no we already make sure our water is purified before drinking by using a second filtration system

Thanks for good service

NO

No

No

Great company

Sounds like stuff they already do in new england -- hurrah for getting with the rest of the country, about 20 years too late.

Looks promising, but concerned about quality of injected water

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I think it's a great project considering the amount of waste surrounding our area. Clean drinking water as well as clean rivers is so necessary for our health and environment.

Good idea, can you maintain current budget with this additional priority?

No

no

Keep up the good work!

Need more information about current state, forecast consumption, and affect on available capacity

None at this time

Great service; great organization.

Nope

If the water is treated to the level of drinking water why is it then released into the Potomac?

None.

No.

Keep It Clean And Safe

Not at this time

This is great - would like to see more projects like this

no

Keep up the good work!

None

Bbbb

None

No

no

no

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glad you're doing this :)

n/a

No

None

None

Not at this time

No.

No

N/A

I'm glad that they are doing the swift project and also letting the consumers know about it

No

No

Have a simple bulleted section of the project actions and results available online or on an invoice.

Sorry, I tend to distrust attempts to recycle the water I drink and cook with. Why? Because of the outbreaks of e-coli from the Salinas Valley. They use recycled sewage plant water from the Monterey sewage plant for irrigation.

No

How much will my bill go up for hiring you to make this survey?

no

no

Heard about other countries doing treatments and curious if this is similar to those but otherwise its a fantastic idea.

No

None

Please send information to me regarding this project.

Water preservation, conservation and recycling is an extremely important issue to all humanity and should be addressed asap.

It sounds very interesting. It is important to find ways of doing things to improve our future world.

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Continue research

no

Why would we pay for better quality of water, when the PUBLIC ALRWADY THINKS WE ARE THE BEST? Can we please match the quality OF WATER to go with the HIGH PRICES WE ARE ALREADY PAYING FOR!

Na

Water is awful

Our water is undrinkable

No

no

n/a

Cleaner environment with cleaner water.

I'm concerned about increasing flood levels to neighborhoods during heavy rain. Drains cannot keep up which put homes not in a high flood zone still at risk. What is being done to ensure drainage systems are working properly and this factor is taken into consideration befor building more homes and or apt complexes?

I do not wish to pay any more for SWIFT or other projects.

None at this time. Seems like a great project for our area.

I will find out more about it

I never received a recent bill and then later received a late notice for this bill, for which I will be penalized! That's not right!

It is your responsibility as a company. Do not pass it along to me as a responsibility. I am looking for a service not a cause.

No

Maybe stop paying top management so much in order to fund this, instead of taking it from customers.

Not really

No additional comment

I only called once one month my bill was really high and no one could tell me why there best guess was the meter was read wrong. After that month my bill went back to normal and has stayed that way. Never got a reason. I guess I just had take one coming

Sounds like a good idea but I don't personally know about how any of it works.

It's important that we have healthy drinking water

Great initiative - it is important for large companies to take part in conserving enviornmental assets.

N/A

As long as the water is clean and tastes good, it is a good thing.

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Make it more known & understood by your customers & community

Just would like to be kept informed about SWIFT from time to time on how it is progressing. It sounds like a very good idea to help with the water rising issues.

No

No

More of THIS!!!!

Continue focusing on our environment and future water supplies... it's very important.

None

If it reduces the rate that HR is sinking, I'm for it.

NO

No

Applaud the SWIFT efforts as long as the appropriate care and science is applied to doing it right.

I like these initiatives. The onus for such conservation efforts cannot be put on the consumer because it is not feasible for individuals/communities to enact these measures. It is up to the resource providers that service the greater community to come up with efficient solutions that ease environmental pressures while meeting consumer demand. Though I don't understand why SWIFT water will be treated and then chemically balanced only to be put back into the groundwater that is then sourced for consumer use. It seems like this adds an unnecessary step, but I suppose that I do not fully understand the system.

no

Great project goal!

no

Any meaningful steps that help protect our environment, water, ecosystem, are very important, and worth paying a little more for - especially those which help with drought resilience and maintaining the healthiness of our water sources.

You need to find other ways to tell people about this. I auto pay my bill and am impressed with this initiative.

Give credit to Chesapeake.

No

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No

Good

No

No

No

NO

No

need media communication tv, radio, etc
you don't show well
i fee is a bi got to pay and

I flush my toilet. It goes away. I'm happy! ;-)

None

Preserving the Bay should be a priority.

Sounds like a good idea, but I don't know how much I would want to pay for it

SWIFT appears to be a very good idea and future project for implementation.

none

Initially I stated that I had not previously heard of SWIFT...after reading your info regarding SWIFT I then realize that I had read about it several months ago.I think it is indeed an important project to undertake.

Great initiative

no

No. Just keep me posted with any new moves that will go on about the ground water with Dwift.

no

Get it done ASAP

Nice work. I'm glad to know this is happening.

Need more info

no

Why can't we use more surface/pond/river water.

No

no except our water tastes terrible

It's a good idea that should be pursued.

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no

No

Great job. After seeing incidents like the crisis in Flint, MI, this is a way that a situation like that could have been avoided.

I want natural water not treated chemically loaded multi generation water

None

no

Have a good day.

Will it reduce the cost of HRSD Service Charges?

No. I will need to do a little more research on your website.

No

Happy to see there is interest in taking care of sustainable resources

no

Glad you have it.

As an employee of HDR, I know how impactful this project will be to the Hampton roads community. I applaud HRSD for their work and look forward to experiencing the benefits SWIFT will have on the community.

please work on reducing cost

No

N/A

No

no

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Na

No

Not at this time.

No

no

not at this time

no problems at all

None

not very knowledgeable about drinking waste water that has been treated but education on the subject could change my opinion

no

N/A

sounds like it is good for environment and economy

I'm not sure I like the idea of just treating wastewater more to make it drinkable. I don't feel like I would trust it. I'd rather wastewater be reused for landscape irrigation or the like, not drinking water.

no

No.

no

Keep doing this. Try to combine such a project with education

no

no

Thank you

That it be optional and the program be transparent to customers

Go for it!

No

no

No

I am all for cleaning the bay. Rising sea levels are a normal cycle.

need to inform the public more about it

Not at this time.

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None

This is an amazing project and I am very supportive of SWIFT. I would like to see more publicity about SWIFT in the newspaper and news media. People here need to know more about SWIFT to be informed citizens and understand the role HRSD has in minimizing the issue of subsistence in our region. John Dano did a great job speaking on SWIFT at the Resilience Forum this fall in Norfolk.

I'll support you as long as you're doing an honest and environmentally friendly job.

no

No

Not at this time

No

We all need to think about the future, not just now

Sustainable water sources are very important to our future

NO

HRSD has provided a great service to our area. Their focus on sustainability is very important to me.

None

no

Do it

No

no

No

No comment

I acknowledge that developing sustainable sources of clean water is extremely important. Thanks for your time, have a great day

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I would like to actually see how this plays out.

No

I would need more details to properly weigh in on this project.

It sounds like a great project and well worth the research and funding.

Very worthwhile and important to the health of the Bay.

Self sustainability is extremely important

Sounds like a good idea as long as I don't notice a increase in my already ridiculous water bill

No

No

No

No comment really.

no

Continue with SWIFT!!

Make it happen :)

Need to couple SWIFT will more intense effort to encourage water conservation and other ways to reduce demand for water and excessive use and leaks.

Wondering if this will raise water bills and how clean can they get the water.

Very few organizations spend a significant amount of effort planning for the future beyond 1-2 years, so I am glad to see that HRSD is looking further down the road.

Feel free to use your profits for projects like this without forcing customers to fund it specifically

You are asking many questions that I am completely unaware of. Sorry about that.

I need to be assured that the water is the same quality as our existing water and that no residual chemicals, used to purify the water, remain that can harm in any way adults, children, pets, plants, etc.

No

No

Not at this time

Not at this time

Sounds like a good idea to prepare for the future.

Aquifer recharge is key to sustainability. This should be a high priority for HRSD.

Great idea for the future!

No

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Thank you for addressing this issue and providing awareness about it.

I believe due to settlement and purification time tables for ground water, it is a win-win. You can actually do less treatment and the groundwater is being replenished.

No

no

go for it.

yes I feel like I should have money credit t my account had excessive high bills until the city fix the line but still charged me and did not credit anything, since fixing it my bills are at a normal rate. I would like someone to look into it

no

I'm all about conservation of resources, but at what price?

Nope

no

No

Sounds like a great project to supply clean water for years to come.

As long as there isn't a huge increase in funding that will cost me more than a reasonable amount that would most likely happen

No

I have minimal understanding of the benefits

No

None

no

yes

(I assume you actually want to know what the comments are, but the question asks yes/no, not open ended, so I am answering the question as written)

Not sure how I feel about injecting treated water into the aquifer. I understand the sustainability aspect but how will you ensure the risk of contamination.

No

no

I cannot think of anything at the moment

Not at this time

No

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Can information about this be found on the HRSD website?

no

N/A

Is SWIFT the reason for this survey, in order to let customers know that our bills are going up in order to pay for SWIFT?

No

Would like more info

Not currently.

Make sure fees don't become outrageous to incorporate SWIFT.

No

None

No

No

No comment

no

Not right now

I think the SWIFT project is very important for the ground water levels. But I also wonder what other methods are being reviewed to continue an uninterrupted supply of water to this region. Has reverse osmosis been studied or is it so expensive as to be not worth studying. We have more of it than most areas? Is HRSD exploring lake water from Lake Anna or river water from the James and York rivers? If you have, what are your positions on those alternatives?

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No

No comment

I cannot have automatic payments made from my bank account like other utilities. I do not want it put on a charge card.

Why is it necessary?

We have had groundwater for hundreds of years.

I don't know enough about it to comment

I would hope this would not mean higher costs for HRSD customers

Thanks for your service

I don't want water being pumped into the aquifer. I think it's a bad idea

No

No

No

We must be very careful to not mess up ground water.

NO.....Different subject: Monthly billing by city and HRSD is economic lunacy....Our water meter is read "manually" each month versus past practice of once per seventy days (so).....Labor costs more than doubled...Ditto with mail....Ditto with admin.....Who pays????? We do.....

I'm satisfied with RSD

none

Given the depletion of the Potomac Aquifer, programs like this are crucial to sustainable drinking water in the region. Hopefully, this trend continues.

Excellent Project

No

Need more info

No

Good program.

None

I forgot, I did hear about this 2 years ago through the VoiCes of the Bay training class that we took. I think it is inexcusable to not do something like this to protect our Bay and all wastewater companies should be doing something to protect the environment in their respective areas. I commend HRSD for working on this.

The method of billing is absurd. I've lived all over the US and this is the only place that bills this way. Additionally, I don't understand why capital improvements are funded through the monthly bills and not through the jurisdictions capital improvement funds.

I think you're doing a great job. Thank you for that.

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Whatever you do, please maintain health of the Bay, and secondarily, do nothing which will negatively impact our drinking water. Thank you for your efforts in support of these outcomes.

I have had very few issues with HRSD since we moved in to our home in July 2007. Any question/issue was handled quickly and professionally.

SWIFT sounds like a good plan. I would be interested in reading more on it.

Wonderful idea. Please pursue and promote!

No

Could the chemicals in the processed water negatively effect the natural drinking water, or the people who drink it?

Sounds like a good idea - create jobs, preserve water - win-win!

Impressed that this is being addressed in this region by a public company

No

Sustainable drinking water sources are important to the economy of the region.

No

none

no.

no

No

No

Do what God tells you to do. I'm not God. I can't tell you how to run your business. I have water. I'm thankful for it. I pray God keeps the streams and water sources from being polluted. Serve the Lord and Worship only him if you do this, he will bless your health your food and your water. Please pray that everyone serves God and worships only him. Thank you!

Individual I spoke to arranging for my bill to be paid automatically was especially nice and friendly and represented the company in the best possible way. And the arrangement for bill paying was handled quickly and effectively. It must be a good place to work. Must have good management.

While environmental issues are a concern of mine, the education of others to these concerns or solutions to the problems are not why I pay you. They are business concerns for you, and you should be concerned. However to pass these costs onto the consumer in the name of the cause is not fair to the consumer. You are a utility. I have no choice in my provider of this service, nor do you have competition. These costs are your costs of business, and should not be passed down the line.

No. Appears to be a good project.

no

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no

No

Reuse of HRSD effluent is very important. it will help slow down ground subsidence if it is injected back into the ground water table. This will then enhance the amount of available well water in the future

No

N/A

No thank you.

No

I am a senior citizen and I live alone. I struggle each month to pay the water/sewage/waste disposal bill. I do not put out trash cans each week and usually not for a month or so. I just don't have that much waste. But I pay what every household pays which might seem fair but it is not. If this policy is unfair to one customer then it is not a fair policy. The only control I have in this matter is to reduce my water consumption. This has had unhealthy consequences but that is what I must do. HRSD needs to find other ways to support the Swift water initiative and not increase the rate on water. I pay as much for the water I use to reprocess what goes down the drain; I am paying twice for the same water.

Examine ways to lower customer cost for water usage.

no

No

Keep me abreast of the outcome of the project.

Bill is too high

No

I have a son who has done research in the US and Australia that was published! We have strong feelings about the quality of water and our need as citizens to take care of this precious resource!

No

No

As long as the drinking water will be safe and the project is good for the environment you have my thumbs up.

First time hearing about it.

no

No

I'm not familiar with it but I am very interested in my utility companies' taking on significant sustainability and CSR initiatives

no

No

Not at this time

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

i like it, its better than doing nothing

N/A

No.

none at this time

sounds like a good project

no

no

Nope

None

HRSD MUST STOP SWIFT and NOT POLLUTE OUR GROUNDWATER. WE WANT REUSE AND RECLAIMED WATER DELIVERED TO OUR RESIDENCES. NOT OUR DRINKING GROUNDWATER WATER POLLUTED

No. not really. Are you hiring? I need a new job.

It sounds promising!

needs more info

If itâ€™s going to cost me more money not interested

We should be doing more of these projections and De-salinizatoin as well

What is the timeline for implementation?

This is an excellent idea.

Good idea

No comment

no

No

NO

Hopefully this project does not increase my bill.

No

no

No

No

No

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none at this time

No comment

No

NO COMMENTS!

No

No.

no

Contamination protocols and safeguards

No

extension option should be re evaluated for customers who may need to utilize it.

n/a

No

HAMPTON ROADS SANITATION DISTRICT
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No

Nothing

No comments

No

Initiatives like this help benefit the planet for future generations.

No

None

It sounds like a good project

No

I like the idea of purifying discharge water to return to the aquifer.

The deduct water meter for lawn watering is a good method an more fair than other methods as it is specific to the customer practices.

No

None

When the pipeline exposes our water to contamination this program will not help us.

No

Not at this time.

While I am in favor of what the SWIFT project is supposed to do, I still cannot understand the chemical process it would take. At present I cannot drink the water from my faucet because of the chemical taste. I use an additional filter for my drinking water.

No

This should be done automatically as a responsible entity should.

Na

Please don't contaminate the groundwater...

Na

No

Has this been done in other areas... any risk of contamination of water table with bacteria or other toxins

Stand by your product by making sure it is safe

I didn't know this project existed but I'm glad it does. Sustaining and replenishing our natural resources for future generations and correcting the mistakes of generations past is VERY important to me.

N/A

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NO

No

No

Not at this time

No

None at this time.

Don't like the quality of my drinking water, too much chlorine and fluoride

None

Limiting surface subsidence due to groundwater drawdown is admirable, but probably sea-level rise will swallow Hampton Roads sooner than subsidence can be halted.

no

No

I am very happy with HRSD and my only complaint is that they are unable to change my billing date to coincide with my Social Security payments. That seems very unfair to me. It's only 5-6 days.

Not at this time

No

No

Based on the description provided, I'm now concerned about the current level of treatment and any negative health or environmental impacts of that treatment. I'm also unclear as to whether this project intends to recycle water, and the health impacts or risks of that.

No

No

no

No

Seems like a good project

No

None

There should be room on the budget as is to pursue such projects as SWIFT. Water services are not cheap.

Long-term solutions to today's problems

Good initiative

Clean water and environment impact are important

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None

Not at this time.

Na

None

No

I support a clean environment and helping to maintain an orderly ecosystem.

None that I can think of.

none. 1st I've heard of SWIFT, so I need to research and understand better.

no, will read more about it later

No

Levels of contaminants can change with the political situation as we have recently seen. I would ask, that once established, contaminant levels by law can never increase regardless of what political party controls the local, state and federal governments. I am familiar with purification standards and projects in this country. Allowing this who do not know the chemistry of such things to make arbitrary changes based on funding or lobbying is unacceptable.

no

How will this treatment effect our bills? What will the treatment consist of, and is it safe?

Consider reaching out to high school science classes to spread the word. The state of Virginia is launching a newly approved average-level environmental science course for ninth grade students. This project could become part of the curriculum, especially for areas most directly impacted by it. Additionally, Earth Science courses in Virginia require students to learn about saltwater intrusion, aquifers, and groundwater processes in general.

no

Having a plan for our future is extremely exciting. ALTHOUGH i honestly knew nothing about it prior to tonight I am genuinely excited about this program.

No

Good proactive movement. Aquifer waters will run out sooner than folks wish to believe.

Nope

No, just that it don't be over priced.

I don't want that water mixed in ours, because our water already has changed over past three months to point it smells like sewage and is giving me a rash on my skin every time I take a shower what are does not taste as good anymore .

no

No

No

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I think that the plan is off to a good start.

n/a

No

N/a

none

Satisfied with service. Glad to see environmental initiatives.

THANKS!!

Great imitative

Now that I'm aware of it, I'll likely pay closer attention to the program.

Water is an important resource. we can't live without it.
This additional treatment of the water would allow it to continue to be useable

Thank you for excellent service.

All it means and this survey is your going to raise our utilities.

na

Transparency in the budget and impact on billing increases associated would be very beneficial for public acceptance and understanding and should be included on customer billing statements.

SWIFT sounds like an opportunity for communities across Hampton Roads to work together toward a goal which affects everyone. Less fighting, more work accomplished.

No

None

None

no

Sounds interesting

No

No, no knowledge, therefore no comment.

No I do not

No

Thanks for caring about the environment

Congratulations for worrying about guaranteeing a source of quality, sustainable drinking water

no

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Looking forward to seeing the outcome

Unknown

Do more Good than harm to our environment, don't make it worse in the process of doing good!

The SWIFT project seems like a good one. I'm sure the cost of such a project would have to be absorbed by its consumers. It is a good thing to protect the environment but I would prefer not to have to pay a premium for it.

No

Sounds great. Letting customers know about projects/initiatives like this are important. Are there more ways to get the word out?

NO

No

Hopefully it's a viable and monetarily reasonable project.

Sounds like a great project to provide safe drinking water.

HAMPTON ROADS SANITATION DISTRICT
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make the best decision to better the community and organization

I know for a fact that outlets exist in other bodies of water and that when bad bacteria limits are up closing beaches it is because you guys let untreated water slip by. I think swift is not necessary at this point, and more money should be spent on oversight at the plants.

no

Not at this time.

good looking out for the future

no

I think that it is a great idea

no

I like the effort to help the environment

No

The questions about service from HRSD are not rational, since sewer service is provided to me by local community and HRSD provides regional service to the community. HRSD may provide service direct to industries.

SWIFT is not directly within the mission of HRSD. HRSD would be providing something of value to communities and other regional agencies that should fund as part of subsidence mitigation programing.

Transparency about customer costs and involvement is important.

If there is an option to participate in projects that will lessen the impact on the environment, I would pay a higher monthly fee to help

not at this time. It was interesting to know this project exists.

NA

none

Very satisfied

No I don't

If this will increase our monthly bill, it doesn't seem a priority. I feel we are being double billed already since the city of Virginia Beach also charges us 3 times what we pay to HRSD for sanitary sewer treatment!!! Isn't that the same thing as wastewater treatment? Our monthly bill to City of Virginia Beach is more than we can afford on SS income. Please explain.

No

SWIFT is a great idea. Hope it works well.

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Thank you

Some of us have a LOT of ground water in our area and it needs to be controlled.

No

no

No.

Use Facebook to share information

No comments

This project is GOOD but another increase in hrsd billing. Infact I noticed that there is already increase in collecting hrsd billing payment.

None at this time.

No.

I hope the water will actually be clean enough for drinking purposes.

no

none

never had any issues

Have iOW own it's only treatment facility

no

While I think this is a very important and necessary project, how are you communicating to customers that the right decisions are being made for them in regards to health, safety and the local environment.

na

Not now.

no

As long as it is being done properly and not just a half effort or for some political means then I think it is important to take environmental impacts and impacts of the growing population into account.

na

why has the cost risen every year since I have been a customer for 15 years

I'm glad you're thinking about our water future and sustainability.

we need a sustainable source of good water

No

nothing more

HAMPTON ROADS SANITATION DISTRICT
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It's a good project I like it

Perhaps a really good idea

Sounds interesting. Would like to know more, especially cost.

no

Q49. What, if any, other suggestions or feedback do you have for HRSD?

By Number of Contacts in the Last 12 Months

NONE:

Nothing.

N/A

lower your payment. match other states. otherwise explain what exactly this money goes to on a monthly scale. why am i paying for public sewer waste water? why does rain water cost me more money yet my street floods every time when there is a hurricane or major rain storm?

No

The localities should pay you directly. It makes no sense for 10,000s of customers to send payments to both each month.

None

Stop just making up numbers for my bill.

Thanks for the survey

None

None

None

NONE

Sometimes the trucks slam down the trash cans so hard that the wheel break, this has happened with both of our trash and recycle containers.

none

When the bill due date changed I felt HRSD did not make certain that I was aware prior to the month the due date changed. I also didn't understand the need for the change because no reason was given.

none

Chemical use concern

N/a

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Your environmental training should coincide with the Chesapeake Bay Foundation, Lynnhaven River Now and other groups that are on top of the entire picture. Support them instead of creating another layer of opinions.

NA

None

None

Extremely friendly folks to talk with when I do call.

I learned through this survey that everything I thought HRSD is, it's actually not. Interesting.

I do think the billing and website for account management are well designed.

None

make web site more user friendly

None at this time

N/A

N/a

None

none

none at this time

none

none

None

None

None at this time

No comment

monthly bill not bi-monthly bill

N/A

The pay-by-text message is the most convenient way for me to pay my bill!

Nothing

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NONE

None

This is one of those hidden-in-plain-sight services; they go on around us and have quite an impact but we don't think about them. I don't have any complaints about HRSD.

none

keep up the good work

None

Thank you for the information

The website shouldn't be so complicated. Please fix it. All I want to do is get my invoice.

None

None

Na

None

na

None presently. I need to do more research into HRSD to have constructive feedback. Thank you.

NONE

none

I find the online account/billing to be very user friendly. I enjoy doing my part to cut back on paper waste by having the online option.

no

N/A

Give people a break for water used for irrigation.

no

Please continue to notify our community on what you are now doing to improve our water system

Doing a great job, keep it up!

n/a

Lower my bill.

When will HRSD allow for separate metering of irrigation systems? Or can there be a standard deduction during the summer months based on usage that comes from an irrigation system. We are currently charged waste treatment on the amount of water used via our irrigation system.

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You double charge folks for the treatment. you charge for treatment and service for pipes separately. use 20 dollars of water and pay 40 dollars to put it down the drain. Who bumped there heads. I lived in Uniontown pa. Mountains and hills rural area and my water bill came every 2 months and was 20 bucks for water, sewage, and garbage pick up. Your price is ridicules.

none

Would like water usage and wastewater measures to use the same units of measure ie; cubic feet OR gallons. They should be the same

NONE

None

None at this time

none.

My first communication from HRSD was a bill. I had NO IDEA who they were. There was no explanation of my obligation to pay the bill. No government affiliation. All I knew was that it was something about water. I thought it was a scam because I already pay the city for my water. I don't just pay seemingly random companies because they send me a bill. I later found out from other people that I'm required to pay. So I ended up paying late fees. Talk about a bad start with a new customer. Now I just view HRSD as an extension of Virginia Beach's outrageous utility fees. The first impression ruined everything for me, and I'm a big proponent of clean water. But the first impression ruined any chance of being interested in HRSD's efforts.

none

You're doing great work! Get the word out

Don't Know

Your surveys are too long.

Lower rates!

None.

none

Keep up the good work

Continue to assess our impact on the environment and continue what you are doing.

None

Neighborhood water runoff drains are never cleaned, yet we pay for them to be. It floods easily in our neighborhood because of their failure to maintain them.

Continue educating public about volunteer opportunities

I would like a budget bill program similar to Dominion Power where you pay the same amt each month based on a six month average

No

None

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none

N/A

None

Go away and let each city handle wastewater treatment

None

Conserve the Chesapeake Bay

Brainstorm!

Why do we have to pay these fees when cities in other states do not have to pay these fees?

None at this time

None at this time.

None

None

NO

No

Continue trying to catch up to providing services that Massachusetts has been providing for decades.

None

Good luck with the progression of this program!

Been here 2 years. Have not had any issues with HRSD. I'm a satisfied customer

none

None

Keep up dating your website

None

none

Keep up the good work!

None

none

none

Move the payment location from Idaho back to VA

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For new customers there is poor clarity on exactly what HRSD is. For the first three months of owning our home I thought it was a redundant bill with the VA utilities bill and threw away the letters. Better clarity on what HRSD is for new homeowners is important to keep this from happening to anyone else.

n/a

None

None at this time

None

Thank you for all the information than you give your customers

We have experienced confusion regarding our bill in the past, meaning we did not receive a bill. When we initially called, the recording said, If you haven't received a bill from us recently, we are working to correct the problem. It was so odd. We regularly receive the bill now, so perhaps it was a temporary issue.

No

Your bills are way out of line

You do a fine job - just think of what increases you may make (overall) and how it affects people's income. After all, we have the VB city bill, power bills, gas bills, property taxes, car taxes and inspections. It's just very overwhelming for anyone, especially those on limited income...seniors, disables, etc. It is somewhat difficult to answer your survey questions without a cut and dry satisfied....not satisfied when one cannot explain. There needs to be an other box available. Thank you,

I own a house and lot in the Town of Dendron but I don't live there at the present time. However, my children or grandchildren will occasionally stay overnight or a few days. I am very happy for HRSD handling my wastewater output because we have had multiple problems with flushing toilets there in the past when there were heavy rains.

Need to stop increasing rates

Make bill paying easier(on-line)..clearer directions on website to pay easily

None

Continue caring about and customers and environment

no

Keeping me updated with changes

This survey is way too LONG and repetitive

n/a

None

Combine billing with local water supply

None really

Keep people informed

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Keep up the good work

I also think it's important to limit junkmail to help preserve environmental assets, so please do not increase the amount of mail sent to advertise environmental efforts.

None

none at this time

I know it's hard, but I sure would appreciate a lower bill

None

None.

none

Keep the public affairs efforts going!

Please make an effort to combine your local billing with our water bills.

Bill once a month instead of every 3 months as it is hard to remember this bill every 3.

I am impressed with what I have learned. Taking the survey got me on their website & wow, they do so much more than I was aware. Perhaps they need to figure out a way to get the message out. Hopefully this survey will help them!!

Should offer free aerators for households and commercials

None

Include this bill with the water bill instead of two separate bills

I would like to be able to receive bill info through my bank as I do for other accounts rather than waiting to get the bill in the mail.

They do a good job

I don't think I should pay a higher rate for putting my bin at the curb only once a month. It's less work for you and the amount you collect for the month is the same. If anything it should cost less.

Specifically, How do they figure my bill?

Keep up the quality work!

be creative to reduce your costs and reduce your fees. Don't waste money on surveys.

Thanks for educating me.

none

Simplify the website for those of us who are only interested in our billing and usage information

none

None

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I have found your rates very high in comparison to other metropolitan areas within Virginia. I have found this to be true ever since we moved to this area in 2006. I think you need to review your costs, pricing structures, and rates you charge the customers.

Do monthly billing 12 bill per year

None!

None

none

No

What exactly do I pay for every month if it isn't for drinking water and trash?

None

Can not understand why my HRSD bill is consistently higher than my city water bill.

Keep the text message bill paying link working. I was able to pay two bills that way and then I had issues with it the third time and had to log into a computer to pay my bill bc the text link said I didn't have an account set up.

Na

None

None

what do you do in middlesex

None

none at the moment

none

We have never lived in a place where we were billed separately for water, wastewater, and garbage. They are usually all one bill. It's very confusing.

I could be out of town for a month. Use no water or any services and still get a bill for over \$50. I realize that water is included in bill. I am also charged a daily minimum for not using any water! I guess HRUBS & HRSD are somehow connected when I get the bill on my email.

None.

none

none

none

When replacing mains in major ROW's such as N. Great Neck Road please follow best management practices for E&S control, tree protection, and most importantly tree selection and planting. Your project manager and contractor did a

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half-assed indifferent job while wiping-out 35 year old street trees and causing damage and stress to those which remain.

sometimes the site carries info on payments that had already been made to my account long ago!

None

Help keep treatment costs low and meet EPA requirements

spread the word at the least cost

none

None

N/A

None

NONE

This survey was rather lengthy, but good information

None

none

Bring back wastewater credits for sprinkler systems. I shouldn't be paying for water you aren't treating

Keep improving

no

No comment

You guys are doing a great job. Stay cool and don't take any shit from no dummies

Coordinate with the city of Virginia Beach Billing. Double billing. Virginia Beach is also promoting over use of water and excess treatment of sewage by charging a flat fee for sewage not based on meter useage when they are reading meters. Your billing is better for the environment but I'm billed twice.

None

na

Be strong and resolute in the face of customers who prefer the status quo and who don't recognize or support the importance of water conservation programs and environmental services.

Once again, I know very little about HRSD, other than paying my bill on time, and I have lived in this house for 45 years.

None

I am a low/middle income customer. Don't have money for increases.

None

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Community environmental education is critically important to sustainability. Local government should support and lead educational and rehabilitation efforts whenever possible.

none

I would prefer to have monthly billing instead of quarterly billing.

Clear instructions on how to understand your bill without having to call and wait for a customer service representative to answer your questions.

None at the moment

What can be done to minimize the practice of emptying private swimming pool water (put there by well water) discharged into the sewers that is not accounted for in the billing process?

keep up the good work

nothing

no

N/a

I pay for sewage on my water bill so why do I have to pay HRSD again?. Other cities in virginia do not pay any HRSD bill. Go easy on the pockets of the poor military folks in this area. Do not exploit us because we make the economy of this area better. Thank you.

Having to know my account number each month to pay my bill is annoying.

Fortunately I haven't had issues with HRSD and if I have a question on my bill I call and it has been answered to by satisfaction. No problems!

None

none

Customer service is severly lacking. I had a rep swear at me then had a supervisor hang up on me over confusion on a bill when they first took over Chesapeake. Horrible company and I rate them lower then the dmV

All I want to do is pay the bill.

None

None

A better way to improve the homeowner have to input the secondary water meter readings

Please tell me how much HRSD is going to raise prices?

Please think about the citizens before you make permanent decisions that only benefit your company.

Great survey. Well done.

None

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Sea level rise is a natural process. It has been occurring as the earth has warmed over the years since the last ice age, during the Maunder Minimum. The inland progression of salt marshes and other wetlands is to be expected and planned for.

The changes in our climate have been established to be tied more directly to the sun's fluctuating output, and much less to any anthropogenic effects. All changes in the mean planetary temperature, as well as all fluctuations in the rate of that change, have been quite firmly documented to consistently coincide with fluctuations in solar output, not with carbon emissions or any other human-based variable.

I certainly don't want to see any time, effort, or money wasted on ostensibly proactive projects that will ultimately have a near-zero lasting effect. And I certainly don't want to pay more on my bill merely to fund them. It is extremely likely that any efforts or projects meant to deal with the perceived problems of sea level rise and salt water intrusion, though well intentioned, will ultimately only stave off the effects temporarily. This will result in a much more dire crisis later on, when those temporary measures are finally overcome.

It would be much more advisable to invest in desalination research, than to pursue temporary measures which are based on an outdated understanding of the ever-changing nature of our climate. Pervaporation in particular seems to be the most promising option.

After taking this survey, I am confused more than ever about what HRSD and HRUBS do and who they are. Can they consolidate into one organization or change the acronym so they aren't confusing?

No comment

Thank you for caring

None

See prior comments about billing practices and financial impact.....

none

None

Cut operational costs to reduce my bill.

Good idea to do this survey. It is a little long.

None

Thank you for what you do. Our community appreciates it.

NA

None

None

none

Nothing

None

Believe on the Lord Jesus Christ and ye shall be saved and thy house (Acts 16:31). Thank you for all you do!

Perhaps a name change since Sanitation is NOT a function.

Nothing at this time

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N/A

Your bill is too high compared to other localities.

None

Remove the minimum payment amount. It's exorbitant for a second home that barely uses any water or sewer in certain months of the year.

Revamp the online accounts. They are very cumbersome and hard to use.

Nn

Notify customers when making changes that may/will affect any automatic payments; for example e-billing via Customer's online banking.

None

None

Market yourselves a in a way that inspires environmental responsibility - maybe with humor and small, easy changes each of us can make. Find a way to grab the attention of those who don't care.

Decrease number of questions in the survey.

no

I always have trouble trying to pay my bill online so I have to do it over the telephone. When I get to the checkout and click, on the next page says session is not valid.

None at this time

None.

none at this time

n/a

Nope

None

HRSD SHOULD BE CLOSED DOWN AND WE NEED A HAMPTON ROADS REGIONAL WATER AUTHORITY. STOP SWIFT AND STOP WASTING OUR MONEY ON A PROJECT THAT WILL POLLUTE OUR GROUNDWATER.

Make sure that the news media present information to the public about SWIFT.

LOOK AT THE PRICES IN WHICH WE PAY FOR YOU , WHY DO YOU GET AS WELL AS OUR WATER DEPT TOO?

no

No

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Stop raising rates. I have 2 bedroom condo where I live with 2 minor children. We are not home all day but my bill is more than \$250. I have lived everywhere from NYC to OK and this is by far the most I have have ever paid for water/waste water.

no

N/A

None

most people only know HRSD as an extra bill. Most often when this topic comes up with neighbors and others in the area, we question what the extra bill is for and why it has to be paid separately when it uses info from the water bill. can't it just be included there? trash is, and that is less related to water use than HRSD's services are.

None

Consistent management of online services

multiple bills are confusing

none

none

None

None

None

Keep up the good work!!!

None

None

Just too much money paid out between this and trash pick up!!

None

Can't think of a thing.

No

None

Why so many reminders to pay bill a month before it is due?

Na

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N/A

I had no idea what HRSD did before today, I thought I did but I was wrong. I didn't know HRSD was involved in projects I actually care about. I listen to NPR a lot and I think that in addition to maybe a social media campaign going on NPR to talk about things would be great.

N/A

NONE

None

Not sure

None

None at this time.

none just continue the way you are doing.....

None

Please pick a consistent day to have bills generated and a due date. It drives me crazy that now that we are on monthly bills, I have no idea when my bill will be generated and what day it will be due.

None

no

Only want to change my bill due date.

None

Bill sewer disposal based on sewer meter not on county's water meter used as I over pay based on your current plan.

None

None

None

Na

None

shorten the survey

none

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

Why so expensive and why is it not apart of the water bill?

All good. Thank you

none

none

No

None

The primary issue, negative feelings I have towards HRSD is that most billing cycles my "water usage" cost is typically only about 1/3 or less of the total bill, the remaining costs are fees. But I do appreciate the company going to a monthly billing cycle.

n/a

The storm drains need to be maintained. We had flooding from clogged drains

Be more explanatory on bill charges so that customers know exactly how the bill is calculated and are you paying for.

Switch to monthly billing

N/A

I have never had any issues with HRSD, Always the best service

na

Look for ways to reduce the cost

I would suggest using the natural gas from sewage to power the waste water treatment plant to reduce operating cost, reduce environmental impact, and lower customer's bills. I have seen this option utilized by the treatment plant in Port Orchard Washington where I previously lived.

The water quality in Toano area is very bad. Very hard water. All areas of my house and car are coated with minerals deposits form the water and they will not come off.

None. Keep up the great work.

None

None

None

Do not know enough to comment.

None

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

Na

Thanks, although it would be nice to be able to choose the language

None

None

keep up the good work

You should not bump up our bills for environmental endeavors as you have the money and are going to take huge money saving tax deductions for your efforts. By taking our money, you are, in effect, getting paid twice.

none

None

none

None

Recognize that most of use are not direct customers of HRSD and re-focus questions.

HRSD is one of the few regional Virginia State agencies, especially in Hampton Roads that has functioned successfully for decades. Sea level rise initiatives are not part of the mission, although you all may have the product to support some of the initiatives to mitigating subsidence in Hampton Roads. Without a separation there may well not be an adequate method for attributing the costs created by those industries that actually pump ground water and are the causers of subsidence.

Interesting survey... ; }

NA

na

None

Please ask City of Virginia Beach to communicate how it differs from HRSD in wastewater treatment and why it cost so much?

None

Allow me to pay my bill without needing my account number! I don't get paper statements (going green) so I don't have it at the ready.

Please add to your homepage an obvious button to report meter readings so we don't have to figure out which button is the correct link.

no

The monthly sub meter reading monthly is not good. Change back to 3 months.

I noticed that there is an increase in billing...I just don't know what are the basis of increase in collection...I like clean water...

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

It sometimes seems that my bills are not bimonthly. Consistency in how frequently they come and when they are due would be nice.

none

keep up good work

no

This survey was too long

Monthly bills

Billing should be included in Newport News Water/Sewer/Garbage Bill

None

show more mercy and grace

na

none

Repetitive questions on this survey, too many of them obviously designed to receive the highest mark of satisfaction.

nothing more

By ONLY 1 TIME:

Hire some more customer service reps. I do not have time to wait all day for a rep to pick up the phone.

Lower the bills. They have doubled for 1 person went from \$120 year to \$280. Too expensive.

Get safari to work with the new billing system

Figure out a way to not charge for water that does not enter the sewers. I garden extensively during the summer and grow most of my own food. I get charged for sewage treatment even though 80% of the water goes to my plants.

The billing system is better, but it is still awkward.

Na

There should be an active process of helping people who have potential leaks in their water system. If a bill goes up dramatically, someone should contact the person, and tell them how to look for a leak and how to read the meter to see if there is a leak.

None

Can't think of any.

None

None

Allow me to pay my bill through my banking services

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

None

None

I called HRSD about a month ago to ask about a bill increase. I was told the increase was related to a reported amount of water given to them from the Virginia Beach Water Utility. I explained the increased water usage was from watering the lawn, and was told HRSD policy can only go by what is reported on my city water bill. They did offer some costly alternative. Charging costumers additional fees for watering the lawn is being double charged for something your utility has no right to do so. This is the customer being held hostage for your utilities inability to properly manage the waste water aspect. You can come up with projects like SWIFT, focus on projects that do not overcharge costumers.

NONE

None

open up your payment options

None

none

Unify with some other utility to minimize extra billing

none

None at this time.

Low

None

None

None.

N/A

lower prices

This survey is to long for just \$5.00.

Na

find a better way to meter sewage. It is not appropriate to charge based upon water used

None

Make billing bimonthly or even monthly. It can be confusing when only receiving billing invoices quarterly, plus it is harder to track consumption rates than on a more discrete basis.

I would like more e-mail notifications regarding environmental impacts, education, and ways to volunteer to help keep our environment/waterways clean.

I receive an invoice, it is accurate. I pay it immediately. Then I get 2 or 3 reminders that the invoice is due. I have paid twice and three times on the same invoice. While this may increase cash flow on the HRDS side, it is a pain for me!

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

Do not go up on my HRSD Bill.

Keep improving

none

none at this time

None

none at this time

N/A

None

Work with the news media to promote your work at HRSD. SWIFT is a major program that not a lot of people have heard about. Need more articles in the paper and stories on TV.

na

None

Explain how my bill was 58 for 3 months. And now for 1 month it's 38 that make no sense. Why is my bill so high?

Thanks for looking out for Virginia!

Lower costs and provide a way to not bill my sprinkler water for wastewater. Not right.

None at this time

none

None

none

Fees have already escalated 100% in the past 4 years. Pretty soon we won't be able to afford any kind of utilities services.

Now happy paying same rates to HRSD when I live in a community that maintains its own pumping stations. Our households get no credits for this.

Make it possible to pay HRUBS bill automatically from bank account

Eliminate minimum fee.

People who conserve water (and sewage) are penalized.

Survey is too long.

Like the job HRSD is doing.

I do not understand why customers are billed separately. There are already fees on my water utility bill, and then I get a separate bill from HRSD, and both can shut off water. Why not bill the locality, and then have the locality bill the customer on one bill?

In the future these surveys need to be much shorter.

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

update the website.

Interesting survey. I learned something I did not know. Have been taking for granted what all HRSD is doing. Will pay more attention now.

None at the present.

no

Free inspection for water leakage.

No

No other feedback

Try to keep costs down!

No comment

Every time I have had to call or go pay a bill, the customer service reps are incredibly nice. It's nice that they give you extra time to pay a late bill if you are having a financial issue, and the reps never make you feel bad. Thanks for that.

NONE

Lower your costs to consumers...but I bet this survey is in aid of an increase!

Fix website

None

speaking at public events or for community service organizations

Keep up the good work

No

No

None

None

No

No

Please make it easy for me to pay my bill

Thank you!

This survey was extremely informative. Thank you

Hampton Roads Sanitation District does not describe a service. I do not know what HRSD does with the fee I pay.

None

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

I think you are doing a great job.

none

None

When paying a bill online, provide a printout with info paid, date, and a confirmation number. That way if there is any problem, there is a reference/confirmation number for the customer use.

none

Nothing at this time.

Make it easier to log into account. I do not always have my account number handy to log in to change account information or see what my bill amount is.

None.

None at this time.

na

contact me at - doc.weaver60@gmail.com

BY 2+ TIMES:

Y is there so many questions about shit I'm to concerned with I JUST WANT TO BE ABLE TO PAY MY BILL WITH NO MORE ONLINE ISSUES ?!!!!

FIX YOUR WEBSITE TO MAKE PAYMENTS ON BILLS.!!!

NONE

Go back to 3 month billing and lower the rates. For reasons nobody understands it's costing as much monthly now as it used to cost for 3 months.

Provide incentives to lower the bill or attain rebates; some type of reward program for the customer.

no

Tell customers what exactly they're paying for on their bill! I still don't know what exactly I'm paying for.

None

No

Lower prices and surcharges.

N/A

I have a 2nd water meter for my Irrigation system. I have been unable to get set up to deduct that water flow. Impossible. Asked county, they say HRSD

No

Please fix your pay my bill --on your website

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

None

Lower your prices for Isle of Wight service

Make the date for cut off more evident on the bill. Sometimes the cut off date is before due date

Continue to make website improvements and strengthen lines of communication.

Noms

None

TRY AND SIMPLIFY A WAY OF DEALING WITH SUB METER READINGS AND COMPENSATION FOR WATER THAT IS NOT WASTE TREATED. IF I MISS MY SEPT 1st METER READING BECAUSE I AM AWAY I DO NOT CONSUME ENOUGH WATER IN THE LAST QUATER TO BE COMPEMSATED. Q3 HAS A MUCH HIGHER LEVEL OF IRRIGATION THAN Q4, WHEN IRRIGATION IS OFF. THIS CAN BE A LARGE LOSS.

Please make your bills less confusing, site easier to pay bills and keep us informed about how you are supporting the environment!

None

no

More information about the breakdown of the bill and how usage is calculated.

Find a way to lower the water bills. My water bills were less than half of what I pay now when I lived in MD. I always tell people we must have gold running through our faucets for as much as you charge for water.

Why are the bills always higher with no explanation??? I have no leaks and my bill goes up every month. Would like the budget plan and they do not have that? If they are not responsible for garbage why are we paying for that on our bill?

N/A

Fix the password issue.

Send paper bills when requested!

Need to invest in a way to use grey water systems in homes and businesses, assist with some rain water collection uses, and restart the fertilizer program.

None

Clarify what you do. I have always been told that HRSD was a combined services bill, including trash and recycling removal. after taking this survey, I was CLEARLY wrong. If I have a full understanding of WHAT you do, and WHY I am being CHARGED certain fees, then I wouldn't feel so negatively about paying a bit more for preservation of the waterways.

Be able to handle billing questions and handle billing problems

fix the new website

None

None currently.

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

NA

Get the billing right. I am sick of feeling like I am getting ripped off with bills that are all over the place.

Go digital

My only complaint is that they changed the billing once which left my bill unpaid by my bank. They resolved this very quickly

None

HRSD does a swell job purifying our drinking water and finding more environmentally friendly means to increase the water supply and maintain quality standards for drinking water. However with the increase of the senior citizen population on fixed incomes and increase could easily result in sectors of the population having to decide how to manage their utility needs and keep them paid. It isn't just the seniors but any low income household, many with children. Other means must be considered before raising any City of Norfolk utility bill. It wasn't easy to come up with SWIFT but you did it; now find another way to fund it.

The survey made me more aware of things to look forward to.

None at this time

none

No

None

None,

None

It took a full month for HRSD to straighten out my automatic billing through my bank. I talked to or had correspondence with at least 7 different employees before it all got straightened out again. It was maddening! Because of that experience, I have rated the company lower on some points. Rates to date seem fair; I don't want to see them raised. I deeply resent the constantly raised fees that Newport News Waterworks foists on its customers. HRSD should continue its good work and keep its same fair prices. Thanks!

Phone hold time is awful. Need more phone reps.

Please fix your billing system.

Lower costs. Water and sewer bills in Nansemond Pointe are outrageous.

Lower rates and increase efficiency

Replace our ditches on our street that don't drain that nobody ever clears so that they can drain on a regular maintenance. Maybe install more drains for the water to drain to from the ditches that fill our yards full of dingy water

We had a water leak a few months ago, it was a nightmare trying to get it sorted out, they allowed practically no compensation once the leak was repaired. The people on the phone and in person were beyond rude and unhelpful. I'm glad this survey is available, hopefully my feedback will make a difference.

Please lower the rates some. The other billing municipality, city water bill, is already high enough.

I have concerns when my monthly bills stay the same for many months in a row... I don't feel. Like I'm being billed accurately

HAMPTON ROADS SANITATION DISTRICT
RESIDENTIAL SATISFACTION STUDY

All I ask is make your website user friendly.

none

We had a major dispute in December. We were told that only one dispute is allowed in 10 years. That is simply ridiculous. If somebody is a blatant abuser, then that is understandable, but if I have a dispute in 2 years you won't accept it?

Many of your customers in this area are military, who move often. It is confusing getting setup with the county and HRSD. It would be great if you had a welcome or new to the community page that provided a summary of what HRSD does, an overview of setting up an account and how it works with the county (I was repeatedly bounced back and forth with Isle of Wight when originally setting up my account). The page could also include environmental sustainability ideas for new home owners/renters, like adding water bags to tank toilets to save money, making sure sprinklers are not set on rainy days (and how much that could save) also how to participate in environmental efforts, such as volunteering with kids.

Notify customers when their automatic payments are no longer occurring via email. Additionally, instead of sending a bill that just says 'the full amount is due by this date' when you intend to stop services, send a bill that says if you do not pay the full amount by this date this services will be disconnected. If you do not provide that information in your email statements then what is the point of having them? There are so many military members and contractors and government employees that support the military and are routinely out of the area that a notice on the door doesn't do them any good. When I receive a bill that says 'hey, your late, this is your new total, due date: July 11, 2018', and I come home on June 29th and my services are shut off that doesn't make any sense to me. It is something that could have been prevented had I known that there was that much of an issue, in particular if I had known that my automatic payments had been canceled then I could have made sure that is never even became an issue.

Additionally, I would HIGHLY recommend that you don't have BOTH your online payment services AND your automated phone payment service down at the same time, and if they are connected system and there is no way to avoid that, then have another means in place for customers to be able to pay their bills outside of working hours.

Lastly, your door notice states that there is an additional fee for restoration of service after business hours, but does not provide a

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #5

AGENDA ITEM 5. – Comprehensive Annual Financial Report (CAFR)



Fiscal Year - 2018 Comprehensive Annual Financial Report (CAFR)

October 23, 2018

Revised November 20, 2018 (items noted in red font)

Acknowledgements

- Lee Acors - Chief of Accounting
- Kathy Stephanitsis - Accounting Manager
- Ramona Bradshaw - Accounting Manager
- Kassandra Pagan - Financial Analyst
- Helen Mayhue - Financial Analyst
- Donna Stinson - Business Analyst
- Anisea Burl - Accounts Payable Supervisor
- Charmaine Simmons - Accounts Payable Associate
- Ingrid Conde - Accounts Payable Associate
- Danielle Raleigh - Accounting Coordinator
- KPMG



35 Consecutive Years

- Fiscal Year 2018 CAFR
 - Bottom Line Up Front (BLUF)
 - Retiree Health Trust (OPEB)
 - Key Financial Policy Indicators
- Conclusion

Bottom Line Up Front (BLUF)

- VRS Pension Funded Ratio Up = 90%
- OPEB Funded Ratio Down = 78%
- Water consumption almost flat YOY (Year over Year)
- Revenues exceeded Expenses **YOY** by **\$15M**
- Total Debt Service Coverage = **2.30x**
- Days Cash on Hand = 434
- Yield Optimization Strategy = up 210% YOY
- Two bond deals in FY18
 1. \$84M refunded, saving \$6M NPV or \$860k per year
 2. First competitive deal, \$75M in proceeds
- Moody's Rating Upgrade = Aa1 (one notch below AAA)

Retiree Health Plan (RHP) Trust
Other Post-Employment Benefits (OPEB)

Retirement Health Plan (RHP) Net Liability and Funded Ratio

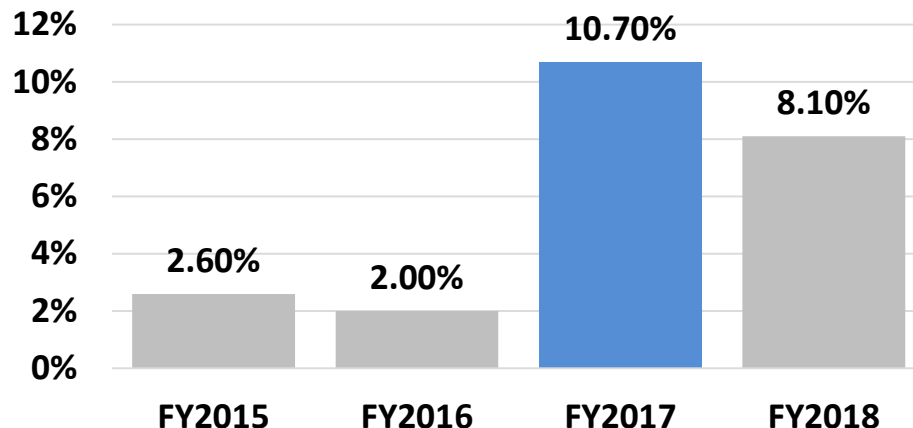
Total **RHP** Liability = \$60.3 million
– Investment Value (Assets) = \$47.1 million

Net RHP Liability = \$13.2 million*

FY2018 Funded Ratio = 78.2%

HRSD assumed rate of return = 6.0%

RHP Annual Investment Returns



Projected Unit Credit Funding Method
FY17 OLD = 86.1%

Entry Age Normal Funding Method
FY17 NEW = 74.1%

*HRSD's total Net OPEB Liability is \$18,149,000, which includes the RHP and two OPEB plans administered by the Virginia Retirement System, the Group Life Insurance Plan and the Political Subdivision Health Insurance Credit Plan.

EXAMPLE - Difference related to Discount Rate and Attrition

Projected Unit Credit (FY17)

PV of Benefit	\$90,000
Service at retirement	30 yrs
Normal Cost	\$3,000
Service at valuation date	10 yrs
Year 1 - Liability	\$30,000
Year 2 - Liability	\$33,000

Entry Age Normal (FY18)

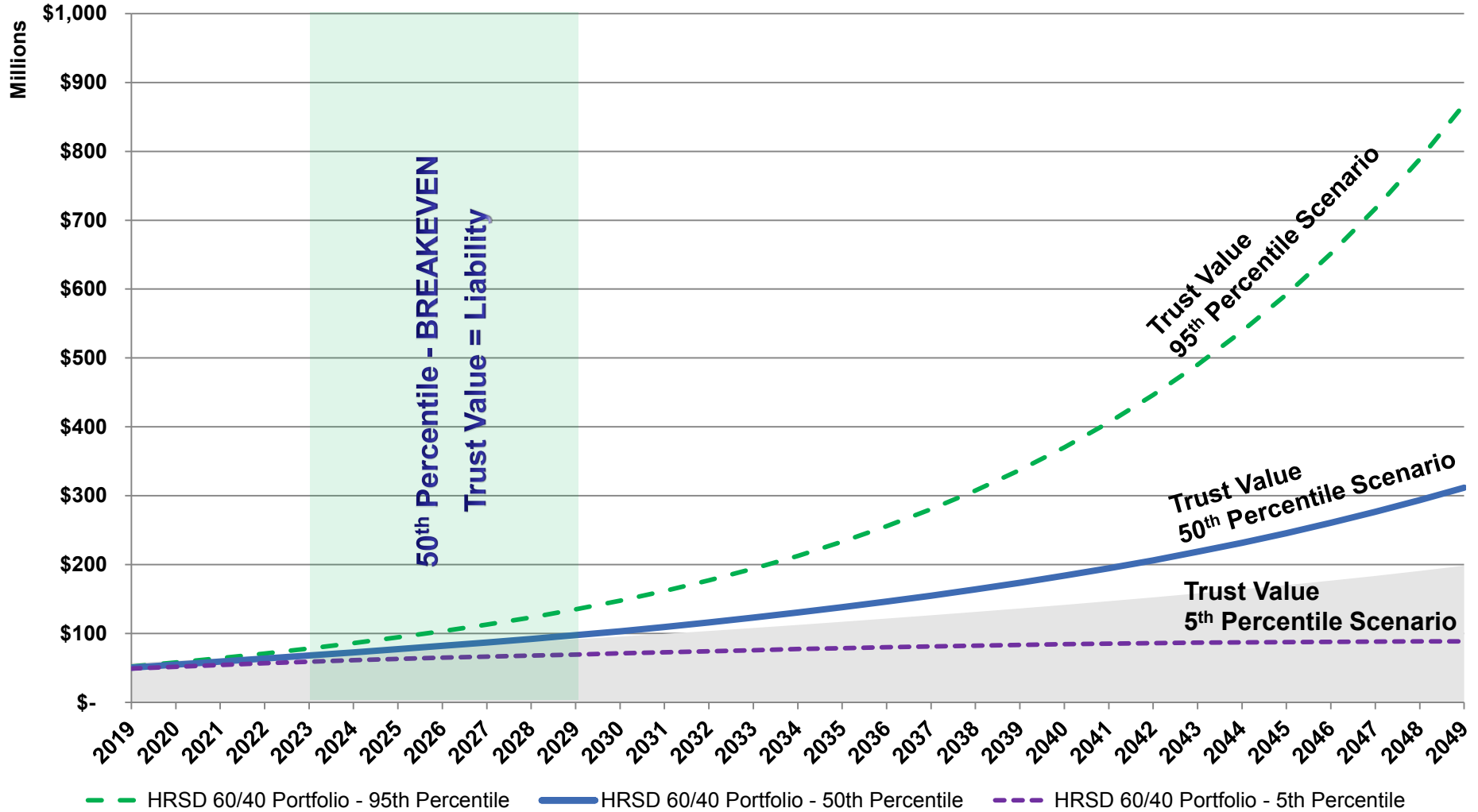
PV of Benefit	\$90,000
Discount Rate	7.0%
Probability of Attrition	5.0%
PV of Benefit	\$101,115
Service at retirement	30 yrs
Normal Cost	\$3,339
Service at valuation date	10 yrs
Year 1 - Liability	\$33,705
Year 2 - Liability	\$37,076

Year 2 = PV of Benefit x Service at valuation date (11 yrs) divided by Service at Retirement (30 yrs)

FY17 Funded Ratio - Difference in Liability Calculation

	GASB45 Accounting Standard	GASB75 Accounting Standard
Actuarial Funding Method	Projected Unit Credit (,000s)	Entry Age Normal (,000s)
Retired Liability	18,452	18,452
Employee Liability	30,851	38,965
Total Liability	49,383	57,417
Market Value of Assets	-	42,526
Actuarial Assets	42,468	n/a
Assets Used	42,468	42,526
Funded Percentage	86.1%	74.1%

Projection – Trust Value vs Liability (Risk Analysis)



Key Financial Policy Indicators

$$\text{Debt Service Coverage Ratio} = \frac{\text{REVENUES} - \text{EXPENSES}}{\text{Principal} + \text{Interest}}$$

- *How much income will you generate to pay Debt Service (principal + interest)?*
- *Will bond investors get paid back?*
- *Higher is better*

Debt Service = Think about a loan payment

2.0 means that you have **two times more money available** to pay for your loan payment

Target = 2.0x
Policy = 1.4x

Debt Service Coverage Ratio (DSCR) by Trust Agreement

SENIOR TRUST AGREEMENT

Senior Debt Service Coverage Requirement FY 2018

Senior Debt Service Coverage Ratio – **Max Annual Debt Svc*** **3.59x**

Financial Policy Requirement (Adjusted Cash Basis)  1.50x
 Legal Requirement 1.20x

Total Debt Service Coverage Requirement FY 2018

Total Debt Service Coverage Ratio – **Max Annual Debt Svc*** **2.03x**

Legal Coverage Requirement  1.00x
 Debt Service Reserve Fund Test 1.35x

SUBORDINATE TRUST AGREEMENT/FINANCIAL POLICY

Total Debt Service Coverage Requirement FY 2018

Total Debt Service Coverage Ratio – **GAAP** **2.30x**

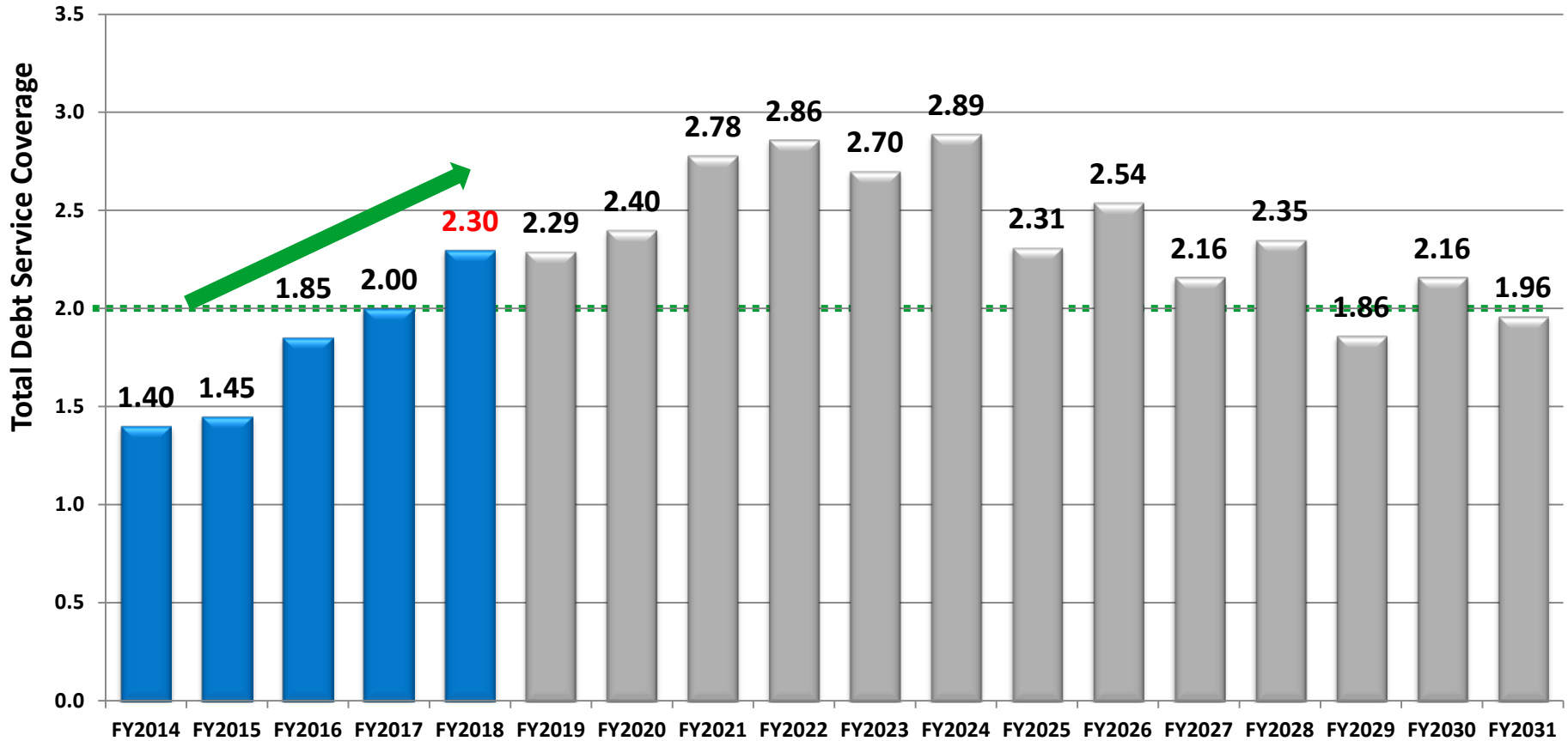
Total Debt Service Coverage Ratio – **Adjusted Cash Basis** **2.30x**

Financial Policy Requirement  1.40x
 Legal Coverage Requirement 1.20x

Fitch 2018 Medians	DSCR
AAA	2.8
AA	2.1
A	1.7
All	2.1
Large	1.9

*Max Annual Debt Service occurs in Year 2020 when CAMBI is completed

Total Debt Service Coverage (GAAP) Trend



ACTUAL

PROJECTED

Liquidity (HRSD's Unrestricted Savings Account)

- Liquidity indicates financial flexibility to pay near-term obligations and margin of safety
- Days Cash on Hand (DCOH)
- How many days can you operate with available cash if no revenue is coming in?
- Includes Capital Reserve funds

$$\text{DCOH} = \frac{\text{Unrestricted Cash and Investments}}{\text{Operating Expenses} \div 365 \text{ days}}$$

HRSD POLICY

Min = 270 DCOH, FY17 = \$113M

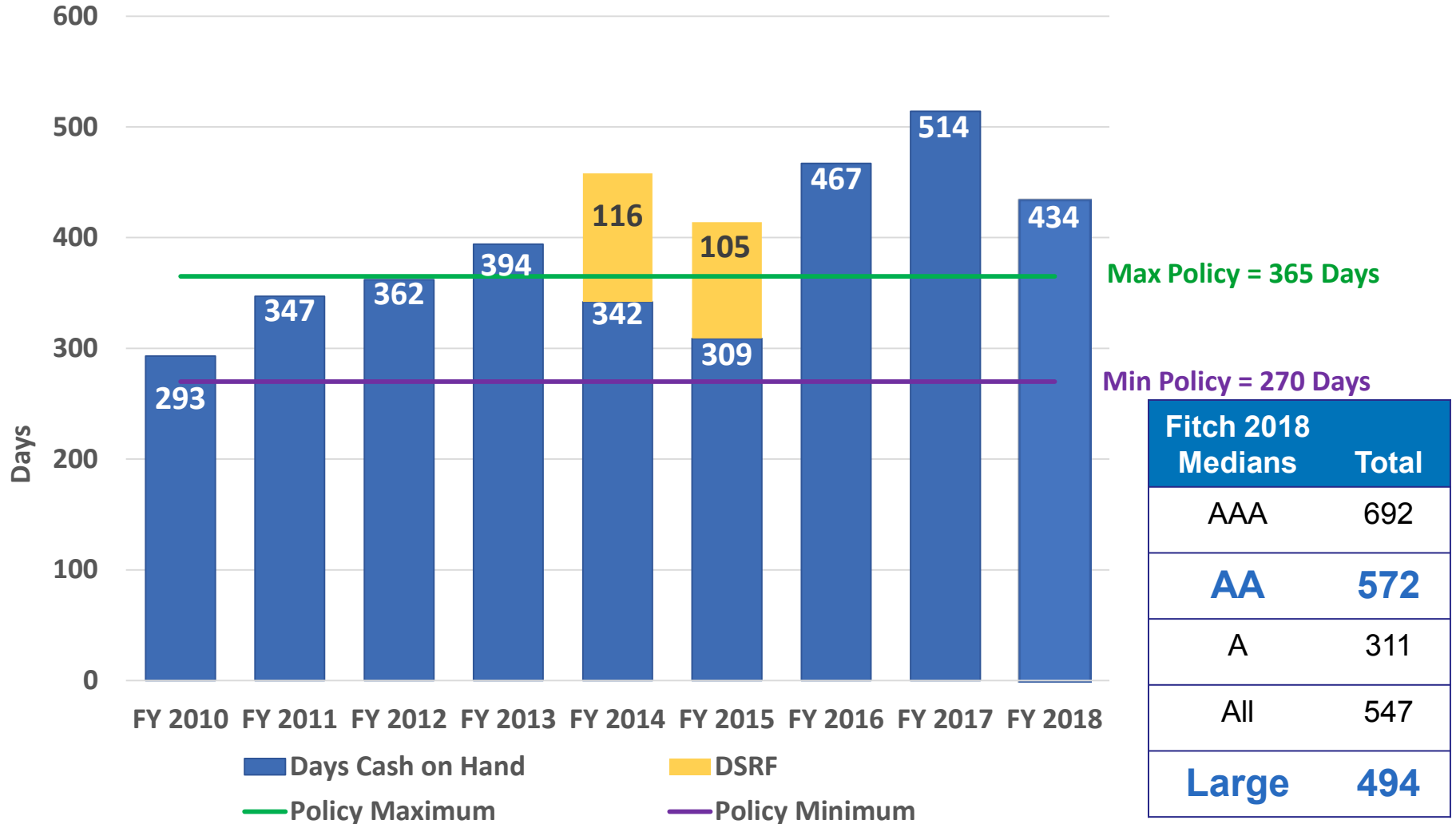
Max = 365 DCOH, FY17 = \$153M

2017 Fitch Medians

AAA = 518 DCOH, FY17 = \$218M

AA = 499 DCOH, FY17 = \$210M

Total Days Cash on Hand (DCOH) = days



- Financial health is sound
 - Achieved target rating agency medians
 - Expenses are stable, but healthcare is volatile
 - Debt Service Coverage is increasing
 - Pension and Retiree Health plans are stable
- Expect Final Auditor's Opinion in November

Questions?



Comprehensive Annual Financial Report

FOR THE FISCAL YEARS ENDED JUNE 30, 2018 AND 2017

*Hampton Roads Sanitation District
(A Component Unit of the Commonwealth of Virginia)*

HRSD
Ensuring future generations inherit clean waterways

The logo for Hampton Roads Sanitation District (HRSD) features the letters "HRSD" in a bold, black, sans-serif font. The letters are stylized with a slight shadow effect. The logo is positioned between two thick, horizontal black bars that extend across the width of the text.

Cleaning wastewater every day for a better Bay.

HAMPTON ROADS SANITATION DISTRICT

(A Component Unit of the Commonwealth of Virginia)

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the fiscal years ended

June 30, 2018 and 2017

**Prepared by:
Finance Department**

HAMPTON ROADS SANITATION DISTRICT

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Introductory Section

S W i



November 27, 2018

HRSD Commission
Virginia Beach, Virginia

Dear Commissioners:

Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. This report fulfills that requirement for the fiscal year ended June 30, 2018.

HRSD's management assumes full responsibility for the completeness and reliability of information contained in this report, based on a comprehensive framework of internal control it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements.

KPMG LLP, Certified Public Accountants, has issued an unmodified ("clean") opinion on HRSD's financial statements for the year ended June 30, 2018. The independent auditors' report is located at the front of the financial section of this report.

Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview and analysis of the basic financial statements. The MD&A, which complements this letter of transmittal, should be read in conjunction with it.

PROFILE OF HRSD

HRSD is an independent political subdivision of the Commonwealth of Virginia (the Commonwealth) created by referendum on November 5, 1940. HRSD was established to abate water pollution in the Hampton Roads area by providing a system of interceptor mains and wastewater treatment plants.

Approximately 1.7 million individuals, more than one-fifth of Virginia's population, reside in HRSD's service area, which is located in the southeastern corner of the Commonwealth. HRSD's territory of approximately 3,100 square miles encompasses nine cities, nine counties and several large military facilities. A brief history of HRSD is provided on page 8. HRSD is required by its enabling act to meet its obligations by charging user fees for its wastewater treatment services; no taxing authority is authorized by the enabling act. Currently, HRSD provides service and bills to approximately 473,000 service connections.

A board of eight commissioners (the Commission), appointed by the Governor of Virginia, governs HRSD. Commission members, who serve four-year staggered terms, can be reappointed without limitation and may be suspended or removed by the Governor at his pleasure. The Commission appoints a General Manager, who appoints the senior staff.

PO Box 5911, Virginia Beach, VA 23471-0911 • 757.460.7003

Commissioners: Frederick N. Elofson, CPA, Chair • Maurice P. Lynch, PhD, Vice-Chair • Vishnu K. Lakdawala, PhD
Michael E. Glenn • Stephen C. Rodriguez • Willie Levenston, Jr. • Ann W. Templeman • Elizabeth A. Taraski, PhD
www.hrsd.com

HRSD owns and operates 16 treatment plants. The nine major plants in Hampton Roads have design capacities ranging in size from 15 to 54 million gallons per day (MGD). Five of the major plants are located south of the James River and four are north of the James River (see map on page 7). The combined capacity of these nine plants is approximately 249 MGD. HRSD's seven small rural treatment plants have a combined capacity of almost one MGD.

HRSD maintains 540 miles of pipelines ranging from six inches to 66 inches in diameter. Interceptor pipelines, along with 89 pump stations in Hampton Roads, interconnect into two independent systems, one south of the James River and one north of the James River. The system allows some flow diversions to provide for maintenance or emergency work. HRSD owns and maintains 34 pump stations on the Middle Peninsula.

LOCAL ECONOMY

HRSD's service area includes nearly all of the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (MSA). It is the ninth largest MSA in the southeastern United States and the thirty-seventh largest in the nation. Unlike many metropolitan areas, Hampton Roads' population nucleus is not confined to one central city. Instead, the approximately 1.7 million residents are spread among several cities and counties. Virginia Beach is the most populous city in the Commonwealth, with Norfolk and Chesapeake second and third, respectively. Suffolk is the largest city by land area. Unemployment rates remain below national averages in the region, which has a civilian labor force of 867,800 as of June 2018.

The regional economy is supported by one of the highest military concentrations in the nation, diverse manufacturing and service sectors, shipbuilding and repair work, international port activities and tourism. Several state and private colleges and a large healthcare infrastructure also lend stability to the region.

A diverse customer base allows HRSD to maintain stable revenues. The ten largest customers account for only 9.5 percent of wastewater revenues for fiscal year 2018. In addition, HRSD's 2018 revenues contained only limited reliance (2.3 percent) on new customer connections.

LONG-TERM FINANCIAL PLANNING

HRSD's Financial Policy helps it maintain its solid fiscal health. Budgetary principles include using ongoing revenues to pay for ongoing expenses, and establishing annual cash contribution goals of at least 15 percent of budgeted capital costs. Under the Financial Policy, senior debt service coverage and total adjusted debt service coverage ratios should not be less than 1.5 and 1.4 times annual debt service, respectively with a goal of maintaining 2.0. Operating and ten-year capital improvement budgets are adopted annually. Included in the operating budget is a long-range financial forecast, which is guided by projections of operating and capital needs and the aforementioned Financial Policy requirements.

MAJOR INITIATIVES

HRSD continues its ambitious \$2.5 billion, ten-year Capital Improvement Program. Regulatory requirements to reduce nutrient discharges, initiatives to ensure appropriate wet weather capacity exists within the regional sanitary sewer system, major plant upgrades and replacements of interceptor pipelines drive the capital program. Major projects are currently under construction at the Army Base Treatment Plant and the Virginia Initiative Plant.

To minimize the impacts of its capital investments on ratepayers, HRSD continues to pursue grant opportunities when available. In 2018, HRSD received approximately \$4.6 million in grant reimbursements for improvements to several of its treatment plants.

AWARDS AND ACKNOWLEDGMENTS

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to HRSD for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2017. This was the 35th consecutive year that HRSD has received this prestigious award. In order to be awarded a Certificate of Achievement, HRSD must publish an easily readable and efficiently organized CAFR that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current CAFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The preparation of this CAFR was made possible by the dedicated service of the entire Department of Finance staff. All members of the department have our sincere appreciation for their contributions to the preparation of this report. Credit must also be given to the Commission for their support for maintaining the highest standard of professionalism in the management of HRSD's finances.

Respectfully submitted,



Edward Henifin, P.E.
General Manager



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



Carroll L. Acors, CPA
Chief of Accounting



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Hampton Roads Sanitation District
Virginia

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morill

Executive Director/CEO

Principal Officials

June 30, 2018

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Maurice P. Lynch, PhD, Vice-Chair

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Vishnu K. Lakdawala, PhD

Willie Levenston, Jr.

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Ann W. Templeman

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General Manager

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and Treasurer

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Director of Water Technology
And Research

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Director of Information
Technology

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James J. Pletl, PhD
Director of Water Quality

Leila E. Rice, APR
Director of
Communications

COUNSEL

Kellam, Pickrell, Cox & Anderson, PC
General Counsel

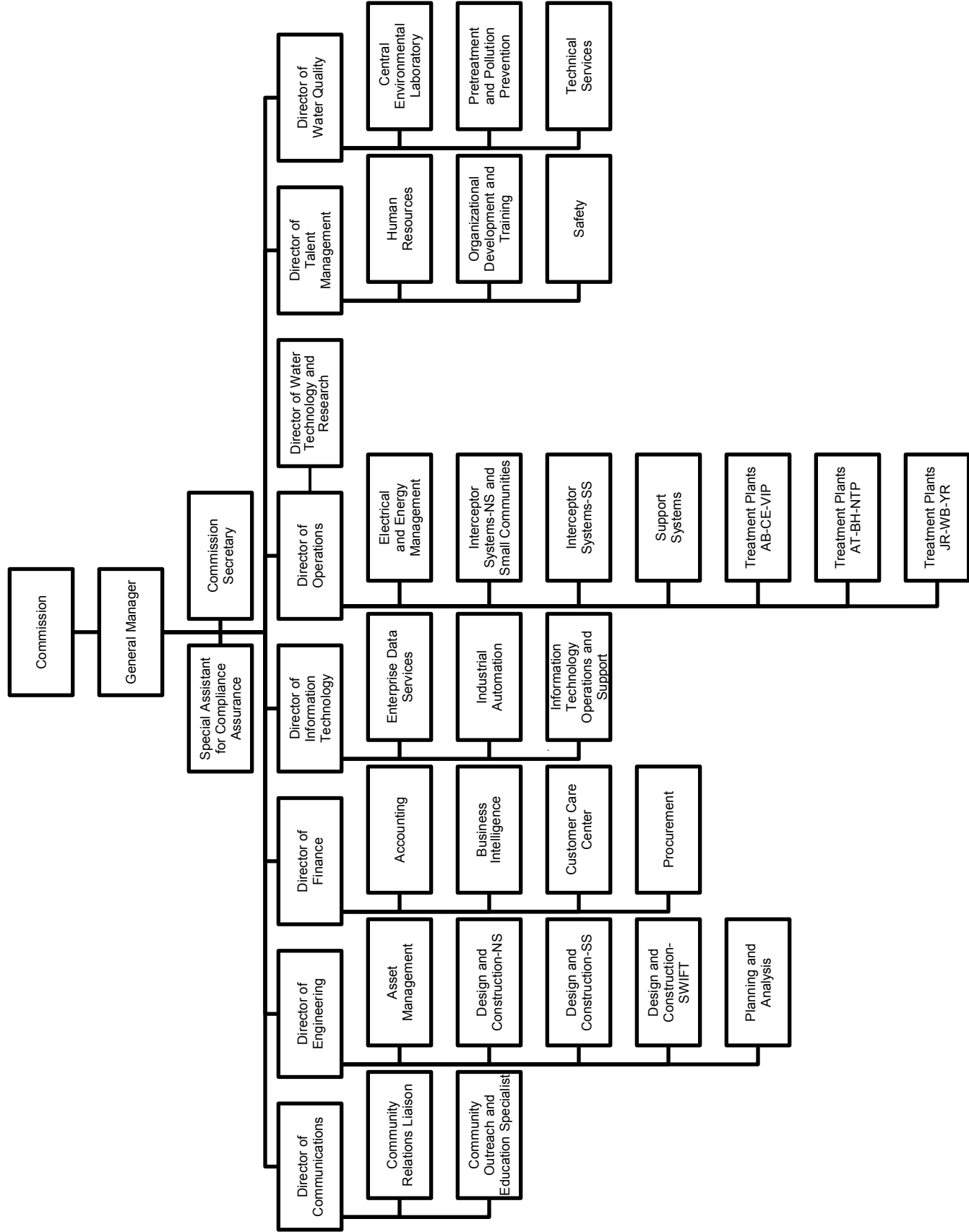
Jones, Blechman, Woltz & Kelly, PC
Associate Counsel

AquaLaw, PLC
Special Counsel

Norton Rose Fulbright US, LLP
Bond Counsel

HRSD Organization Chart

July 1, 2018

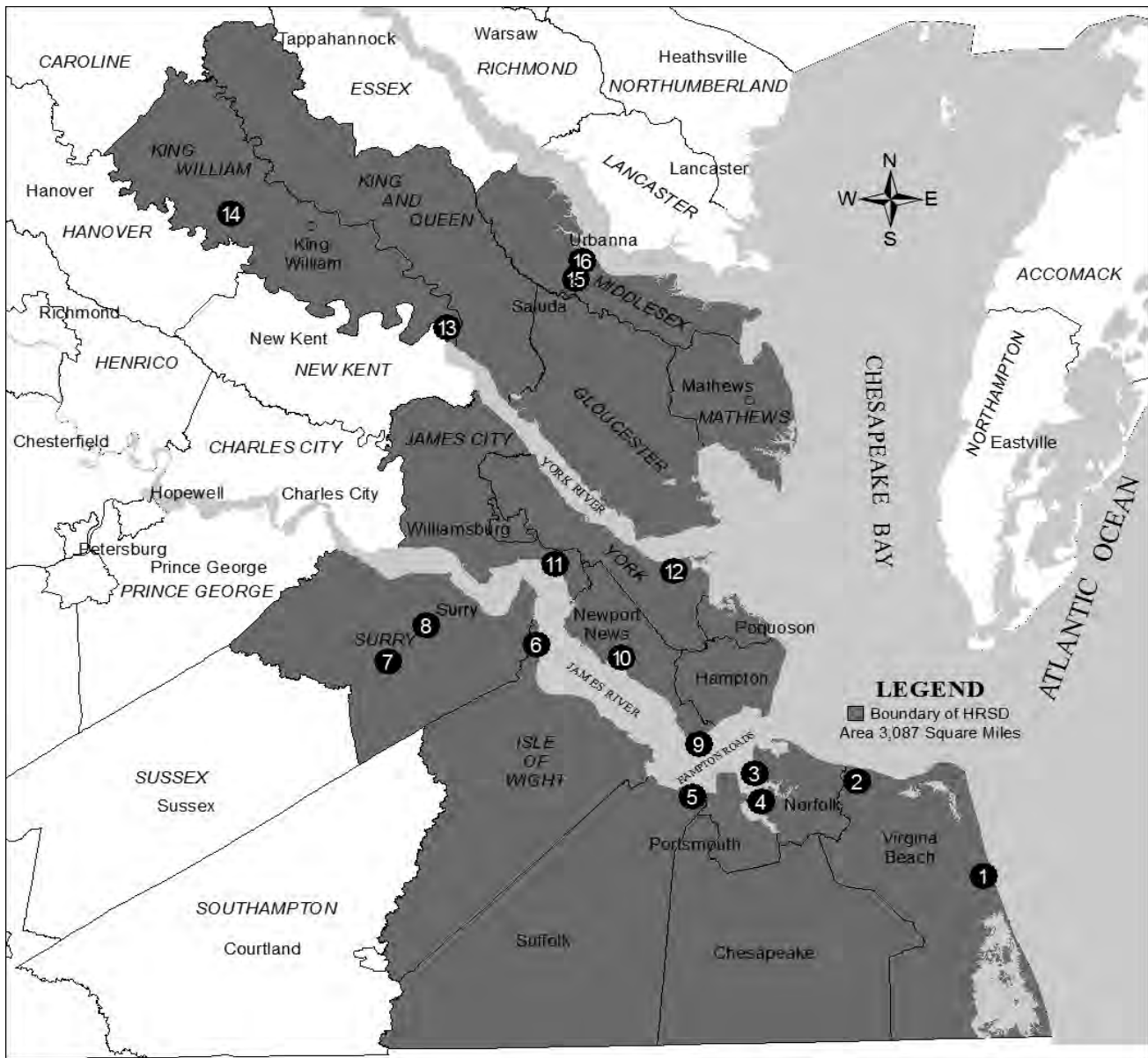


HRSD Service Area

A Political Subdivision of the Commonwealth of Virginia

Facilities include the following:

- | | | |
|------------------------------------|---|--|
| 1. Atlantic, Virginia Beach | 9. Boat Harbor, Newport News | Serving the Cities of
Chesapeake, Hampton,
Newport News, Norfolk,
Poquoson, Portsmouth, Suffolk,
Virginia Beach, Williamsburg and the
Counties of Gloucester,
Isle of Wight, James City,
King and Queen, King William,
Mathews, Middlesex, Surry* and York
*Excluding the Town of Claremont |
| 2. Chesapeake-Elizabeth, Va. Beach | 10. James River, Newport News | |
| 3. Army Base, Norfolk | 11. Williamsburg, James City County | |
| 4. Virginia Initiative, Norfolk | 12. York River, York County | |
| 5. Nansemond, Suffolk | 13. West Point, King William County | |
| 6. Lawnes Point, Smithfield | 14. King William, King William County | |
| 7. County of Surry | 15. Central Middlesex, Middlesex County | |
| 8. Town of Surry | 16. Urbanna, Middlesex County | |



History of HRSD

June 30, 2018

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

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

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

HRSD began operations on July 1, 1946, using facilities acquired from the United States Government. The Warwick County Trunk Sewer, HRSD's first construction project, began on June 26, 1946, and was funded by HRSD's \$6.5 million Primary Pledge Sewer Revenue Bonds, dated March 1, 1946. The first treatment plant, the Army Base Plant, began operation on October 14, 1947. Since that time, the facilities of HRSD have grown to provide sanitary sewer service to all major population centers in southeastern Virginia. The population served has increased from nearly 288,000 in 1940 to about 1.7 million in 2017.

Throughout its rich history HRSD has earned many of its industry's most prestigious awards. This tradition continued as the National Association of Clean Water Agencies (NACWA) presented Peak Performance Awards for outstanding compliance with National Pollutant Discharge Elimination System (NPDES) permits to every HRSD treatment plant during calendar year 2017. The major treatment plants received the following awards in recognition of their outstanding permit compliance status: Atlantic—Gold, Boat Harbor—Platinum (16 consecutive years), Chesapeake-Elizabeth—Silver, James River—Gold, Nansemond—Platinum (16 consecutive years), Virginia Initiative Plant—Platinum (22 consecutive years), Williamsburg—Platinum (23 consecutive years) and York River—Platinum (10 consecutive years). Three treatment plants in the Small Communities Division, Central Middlesex, King William and Urbanna, earned Silver Awards while West Point received a Gold Award.

Highlighting 2018, HRSD's SWIFT (Sustainable Water Initiative for Tomorrow) Program was awarded the U.S. Water Prize for the public sector by the U.S. Water Alliance. HRSD's other honors received in 2018 include the NACWA National Achievement Award - Workforce Development Award for the HRSD Apprenticeship Program and the NACWA National Achievement Award - Operations & Environmental Performance Award for the HRSD Pump Station Architectural Guidelines. HRSD also earned a National Award from the American Council of Engineering Companies (ACEC) for the HRSD Norchester Pump Station. And, HRSD was recognized by the Elizabeth River Project as a Sustained Distinguished Performance Model Level River Stars Business.

Sustainable
Water Initiative
for Tomorrow

Financial Section

Leonardo da Vinci

Water is the
driving force
of all nature.

Dr Louis van Vuuren

Water should not
be judged by its



KPMG LLP
Suite 1900
440 Monticello Avenue
Norfolk, VA 23510

Independent Auditors' Report

The Commissioners
Hampton Roads Sanitation District:

We have audited the accompanying financial statements of the Hampton Roads Sanitation District (HRSD), a component unit of the Commonwealth of Virginia, as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise HRSD's basic financial statements for the years then ended as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of HRSD as of June 30, 2018 and 2017, and the changes in financial position and cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of a Matter

As discussed in Note 2 to the financial statements, in 2018, HRSD adopted new accounting guidance described in Governmental Accounting Standards Board No. 75: *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Our opinion is not modified with respect to this matter.



Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that Management's Discussion and Analysis on pages 11 through 15, the Schedule of Changes in Net Pension Liability and Related Ratios on page 51, the Schedule of Employer Pension Contributions on page 52, the Schedule of Changes in Net RHP OPEB Liability and Related Ratios and Notes to Required Supplementary Information on page 53, the Schedule of RHP OPEB Contributions and Related Ratios on page 54, and the Schedule of RHP Funding Progress on page 55, the Schedule of Employer's Share of Net GLI OPEB Liability and Related Ratios on page 56, the Schedule of Employer Group Life Insurance Contributions and Notes to the Required Supplemental Information on page 57, the Schedule of Changes in Net HIC OPEB Liability and Related Ratios on page 58, and the Schedule of Employer Health Insurance Credit Contributions and Notes to the Required Supplemental Information on page 59 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise HRSD's basic financial statements. The Introductory Section, Statistical Section and Other Supplemental Section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures on pages 64 through 65 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The Introductory Section, the remaining schedules in the Statistical Section, and the Other Supplemental Section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

KPMG LLP

November 27, 2018
Norfolk, Virginia

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)

This narrative overview and analysis of the financial activities of the Hampton Roads Sanitation District (HRSD) for the fiscal year ended June 30, 2018 is provided by HRSD's management. Readers of the accompanying financial statements are encouraged to consider this information in conjunction with that furnished in the letter of transmittal, which can be found on pages 1 through 3 of this report.

FINANCIAL HIGHLIGHTS

- Total net position increased \$43.4 million, or 6.6 percent, in 2018 as a result of this year's operations after adjusting the opening net position by \$20.2 million to record other postemployment benefits (OPEB) as required under new reporting rules.
- Total revenues increased \$20.7 million, or 7.7 percent. This increase is primarily attributable to wastewater revenue rate increases.
- Operating expenses increased \$7.1 million, or 3.5 percent, principally due to a \$3.2 million increase in contractual services and a \$3.0 million increase in depreciation expense, due to the completion of major expansions of treatment plants and interceptor systems in 2017 and 2018. Healthcare expense increased by \$3.5 million due to an unexpected increase in large medical claims.
- Non-operating expenses decreased \$1.2 million, or 5.3 percent, primarily due to a \$2.4 million decrease in interest expense as a result of higher amortization of bond issue premiums and more interest being capitalized into construction in progress.
- HRSD received \$4.6 million in capital grants in 2018, including \$2.5 million from the Commonwealth of Virginia, to help finance its capital improvement program.
- Restricted cash and cash equivalents increased \$72.4 million, or 318.8 percent, primarily due to new bonds issued for capital construction activity. Unrestricted cash and cash equivalents and investments decreased \$25.6 million, or 11.9 percent, primarily due to increases in debt service levels and bond construction funds.
- Net Property, Plant and Equipment increased \$65.7 million, or 5.2 percent, primarily due to expansion of treatment plants and interceptor systems.

OVERVIEW OF FINANCIAL STATEMENTS

HRSD's Basic Financial Statements are comprised of the financial statements and the notes to the financial statements. This report also contains required supplementary information and other supplementary information in addition to the Basic Financial Statements.

The Basic Financial Statements, found on pages 16 through 19 of this report, are designed to provide readers with a broad overview of HRSD's finances in a manner similar to a private sector business.

The Statements of Net Position, found on pages 16 and 17 of this report, present information on all of HRSD's assets, deferred outflows of resources, liabilities, and deferred inflows of resources; the difference between these components is reported as net position. Over time, changes in net position may serve as a useful indicator of whether the financial position of HRSD is improving or deteriorating.

The Statements of Revenues, Expenses and Changes in Net Position, found on page 18 of this report, present all of HRSD's revenues and expenses, showing how HRSD's net position changed during the year. All changes in net position are reported as soon as the underlying event takes place, thus giving rise to the changes, regardless of the timing of the cash flows. Thus, revenues and expenses are reported for some items that will only result in cash flows in future fiscal periods.

The Notes to Financial Statements, found on pages 20 through 50 of this report, provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the basic financial statements and the related notes, this report also presents certain required supplementary information concerning HRSD's progress in funding its obligations to provide pension and other postemployment benefits to its employees.

Required Supplementary Information can be found beginning on page 51 of this report.

FINANCIAL ANALYSIS

As noted earlier, net position may serve over time as a useful indicator of HRSD's financial position. Assets exceeded liabilities by \$697.6 million at June 30, 2018 and by \$654.3 million at June 30, 2017.

By far, the largest portion of HRSD's net position (73.4 percent and 65.5 percent at June 30, 2018 and 2017, respectively) reflects its net investment in capital assets (e.g. land, buildings, machinery and equipment) less any related debt used to acquire those assets still outstanding, net of unspent bond proceeds. HRSD uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although HRSD's net investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, because the capital assets themselves cannot be liquidated to reduce these liabilities.

HRSD's net position is summarized in the following condensed Statements of Net Position as of June 30:

HRSD's Condensed Statements of Net Position

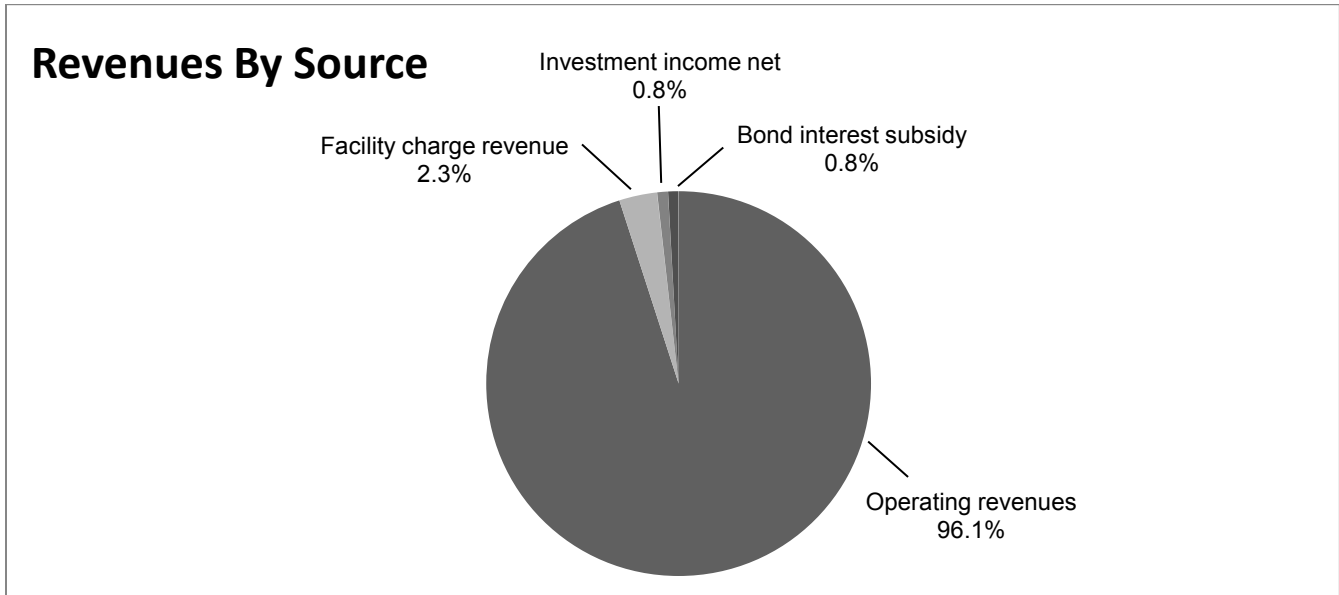
(in thousands)	2018	2017	2016	2018 vs. 2017	
				Dollars	Percent
Capital assets	\$ 1,321,644	\$ 1,255,952	\$ 1,200,404	\$ 65,692	5.2%
Current assets and noncurrent assets	357,699	310,534	357,804	47,165	15.2%
Total assets	\$ 1,679,343	\$ 1,566,486	\$ 1,558,208	\$ 112,857	7.2%
Deferred outflows of resources	20,762	30,822	25,638	(10,060)	-32.6%
Long-term liabilities	\$ 850,928	\$ 805,685	\$ 826,393	\$ 45,243	5.6%
Current liabilities	139,914	134,353	147,339	5,561	4.1%
Total liabilities	\$ 990,842	\$ 940,038	\$ 973,732	\$ 50,804	5.4%
Deferred inflows of resources	11,634	2,992	8,510	8,642	288.8%
Net investment in capital assets	\$ 512,398	\$ 428,670	\$ 410,287	\$ 83,728	19.5%
Restricted for debt service	27,799	22,701	23,798	5,098	22.5%
Unrestricted	157,432	202,907	167,519	(45,475)	-22.4%
Total net position	\$ 697,629	\$ 654,278	\$ 601,604	\$ 43,351	6.6%

At June 30, 2018 HRSD retained \$67.3 million of unspent bond proceeds and at June 30, 2017 had no unspent bond proceeds. The increase in capital assets and the corresponding changes in current assets and noncurrent investments from 2016 through 2018 are primarily the result of issuing bonds in 2016, 2017 and 2018 and using these proceeds to fund capital improvements.

The changes in HRSD's net position can be determined by reviewing the following condensed Statements of Revenues, Expenses and Changes in Net Position:

HRSD's Condensed Statements of Revenues, Expenses and Changes in Net Position

(in thousands)	2018	2017	2016	2018 vs. 2017	
				Dollars	Percent
Operating revenues	\$ 279,043	\$ 258,630	\$ 237,881	\$ 20,413	7.9%
Facility charge revenues	6,673	7,511	6,699	(838)	-11.2%
Investment income, net	2,272	1,168	2,313	1,104	94.5%
Bond interest subsidy	2,330	2,275	2,399	55	2.4%
Total revenues	290,318	269,584	249,292	20,734	7.7%
Operating expenses:					
Wastewater treatment	116,982	113,100	106,575	3,882	3.4%
General and administrative	40,480	40,287	40,026	193	0.5%
Depreciation and amortization	52,349	49,311	45,670	3,038	6.2%
Total operating expenses	209,811	202,698	192,271	7,113	3.5%
Non-operating expenses:					
Bond issuance costs	1,061	42	1,713	1,019	2426.2%
Capital distributions to localities	311	138	3,287	173	125.4%
Interest expense	20,226	22,630	21,631	(2,404)	-10.6%
Total non-operating expenses	21,598	22,810	26,631	(1,212)	-5.3%
Total expenses	231,409	225,508	218,902	5,901	2.6%
Income before capital contributions	58,909	44,076	30,390	14,833	33.7%
Capital contributions	4,626	8,598	14,389	(3,972)	-46.2%
Change in net position	63,535	52,674	44,779	10,861	20.6%
Total net position - beginning, as restated	634,094	601,604	556,825	32,490	5.4%
Total net position - ending	\$ 697,629	\$ 654,278	\$ 601,604	\$ 43,351	6.6%



Operating revenues increased 7.9 percent in 2018 and 8.7 percent in 2017. The majority of these increases are attributable to various rate increases in metered public wastewater services. Facility charge revenues decreased \$0.8 million, or 11.2 percent, in 2018 after increasing \$0.8 million, or 12.1 percent, in 2017, due to a decrease in new construction activity across the region.

Operating expenses increased 3.5 percent in 2018 and increased 5.4 percent in 2017. Increases in 2018 were principally due to a \$3.1 million increase in contractual services, a \$3.5 million increase in healthcare expense and a \$3.0 million increase in depreciation expense. Increases in 2017 were principally due to a \$5.4 million increase in contractual services and a \$3.6 million increase in depreciation expense.

In 2018 and 2017, HRSD received \$4.6 million and \$8.6 million, respectively, in capital grants to help finance its capital improvement program.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

At the end of both 2018 and 2017, HRSD had approximately \$1.3 billion invested in a broad range of capital assets, including wastewater treatment plants, interceptor mains, pump stations, automotive, administrative and maintenance buildings, and office and computer software and equipment. These amounts represent a net increase of \$65.7 million, or 5.2 percent, in 2018 and \$55.5 million, or 4.6 percent, in 2017.

The following summarizes HRSD's capital assets, net of accumulated depreciation, as of June 30:

HRSD's Capital Assets

(in thousands)	2018	2017	2016
Land	\$ 12,174	\$ 12,174	\$ 12,174
Treatment plants	572,942	543,616	557,145
Interceptor systems	442,376	368,666	351,828
Buildings	31,186	32,345	30,428
Small community facilities	17,718	18,288	18,649
Office equipment	2,555	3,774	5,314
Automotive	2,092	2,070	1,935
Other equipment	8,171	10,344	11,002
Software and intangible assets	10,147	16,616	21,108
	1,099,361	1,007,893	1,009,583
Construction in progress	222,283	248,049	190,821
Net property, plant and equipment	\$ 1,321,644	\$ 1,255,942	\$ 1,200,404

The following summarizes the changes in capital assets for the years ended June 30:

(in thousands)	2018	2017	2016
Balance at beginning of year	\$ 1,255,952	\$ 1,200,404	\$ 1,101,351
Additions	143,807	47,631	183,283
Depreciation and amortization	(52,349)	(49,311)	(45,670)
Net increase (decrease) in construction in progress	(25,766)	57,228	(38,560)
Balance at end of year	\$ 1,321,644	\$ 1,255,952	\$ 1,200,404

The largest increase in capital assets in the past two years has been in treatment plant construction and interceptor system construction, which includes pipeline replacements, pump station rehabilitations and other improvements to the infrastructure. During 2018, HRSD invested significant funds in improvements to the York River treatment plant, the Boat Harbor, James River, and Virginia Initiative interceptor systems, and the SWIFT Research Center. During 2017, HRSD invested significant funds in improvements to the Virginia Initiative and York River treatment plants, the Nansemond interceptor system, and the SWIFT Research facility.

Long-Term Debt

At June 30, 2018, HRSD had a total of \$891.4 million in revenue bonds outstanding versus \$846.8 million in 2017, an increase of 5.3 percent. This increase is related to new revenue bonds, in the par amount of \$63.2 million, to fund capital improvement projects, and new subordinate wastewater revenue refunding bonds, in the par amount of \$83.5 million, to refund existing senior and subordinate debt. This increase is partially offset by payments on and refunds of existing senior and subordinate debt.

The following summarizes HRSD's outstanding debt principal at June 30:

HRSD's Outstanding Debt

(in thousands, net of premium)	2018	2017	2016
Senior revenue bonds	\$ 332,141	\$ 429,165	\$ 444,616
Subordinate revenue bonds	485,468	350,347	361,463
Total outstanding debt	\$ 817,609	\$ 779,512	\$ 806,079

HRSD's financial strengths are reflected in its high credit ratings. In 2018, HRSD was upgraded one notch by Moody's Investors Service:

Ratings Agency	Senior Debt	Subordinate Long-term	Subordinate Short-term
Standard & Poor's	AA+	AA	A-1+
Fitch Ratings	AA+	AA	F1+
Moody's Investors Service	Aa1	Aa2	n/a

The development of HRSD's Capital Improvement Program and its related debt programs are governed by revenue Trust Agreements. The Senior Trust agreement requires the senior debt coverage to be 1.2 times maximum annual debt service and total debt service coverage of 1.0 times maximum annual debt service both on a GAAP basis. The Amended and Subordinate Trust agreement was amended in 2016 to account for future Consent Decree expenses related to Locality wet weather improvements that HRSD will not own. In the Amended Trust, Operating Expenses were redefined as shown below for the purposes of calculating an "Adjusted" debt service coverage on a cash basis:

"Operating Expenses" as defined by the Enabling Act and as used in the Senior Trust Agreement, operating expenses includes the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves therefor as may be provided in the resolution providing for the issuance of such revenue bonds or in the trust agreement securing the same. As defined in the Subordinate Trust Agreement, Operating Expenses includes those expenses required to pay the cost of maintaining, repairing and operating the Wastewater System, including, but not limited to, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the Wastewater System, insurance premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program. Operating Expenses shall exclude allowance for depreciation and amortization and expenditures for extraordinary maintenance or repair or improvements. Operating Expenses shall also

exclude expenses for improvements that will not be owned by HRSD but which will, in the reasonable determination of the Commission, as evidenced by a resolution thereof, maintain or improve the integrity of the Wastewater System.

The Amended and Subordinate Trust agreement requires total debt service coverage to be 1.2 times current year debt service on an Adjusted basis. HRSD's Financial Policy and operating and capital improvement plans were developed with the intent to maintain coverage ratios in excess of these requirements. HRSD's Financial Policy requires senior debt service coverage to be 1.5 times and total debt service coverage to be 1.4 times.

	Senior Debt Service Coverage		Total Debt Service Coverage	
	GAAP	Adjusted	GAAP	Adjusted
Senior Trust Agreement	1.20x (MADS)	None	1.00x (MADS)	None
Amended Subordinate Trust Agreement	None	None	None	1.20x (Current Year)
Financial Policy	None	1.50x (Current Year)	None	1.40x (Current Year)

More detailed information regarding HRSD's capital assets and long-term debt is presented in Notes 5 and 9, respectively.

ECONOMIC FACTORS AND RATES

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 113 million gallons per day (MGD) to approximately 111 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

In 2018, wastewater revenues increased as a result of planned rate increases needed, in large part, to fund HRSD's capital improvement program. Facility charge revenues decreased \$0.8 million, or 11.2 percent, in 2018 after increasing \$0.8 million, or 12.1 percent, in 2017, due to a decrease in new construction activity across the region. Facility charge revenues comprised only 2.3 and 2.8 percent, respectively, of HRSD's total revenues in 2018 and 2017.

Wastewater treatment rates for the 2018 fiscal year were increased by approximately 9 percent at the beginning of the year for the vast majority of HRSD customers. The increases are necessary to meet growing capital improvement needs and the increased cost of treatment operations.

It is anticipated that the average residential customer bill will rise by less than 10 cents per day in fiscal year 2019.

CONTACTING HRSD'S FINANCIAL MANAGEMENT

This financial report is designed to provide a general overview of HRSD's finances for all those with an interest. Questions concerning the information provided in this report or any requests for additional information should be addressed to the Director of Finance, 1434 Air Rail Avenue, Virginia Beach, Virginia 23455.

**HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2018 AND 2017**

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

(in thousands)	2018	2017
CURRENT ASSETS		
Cash and cash equivalents	\$ 66,078	\$ 92,076
Cash and cash equivalents - Restricted	44,718	22,701
Investments	17,871	14,260
Accounts receivable, net	41,908	39,627
Accrued interest	447	447
Other current assets	2,582	3,644
TOTAL CURRENT ASSETS	173,604	172,755
NON-CURRENT ASSETS		
Cash and cash equivalents - Restricted	50,359	-
Investments	106,219	109,427
Inventory	27,517	28,352
	184,095	137,779
NET PROPERTY, PLANT AND EQUIPMENT		
Land	12,174	12,174
Treatment plants	1,242,191	1,184,198
Interceptor systems	609,416	525,473
Buildings	49,132	48,735
Small community facilities	25,549	25,529
Office equipment	44,613	44,613
Automotive	18,986	18,180
Other equipment	36,589	36,066
Software and intangible assets	39,749	39,624
	2,078,399	1,934,592
Less: Accumulated depreciation and amortization	979,038	926,689
	1,099,361	1,007,903
Construction in progress	222,283	248,049
NET PROPERTY, PLANT AND EQUIPMENT	1,321,644	1,255,952
TOTAL NON-CURRENT ASSETS	1,505,739	1,393,731
TOTAL ASSETS	1,679,343	1,566,486
DEFERRED OUTFLOWS OF RESOURCES		
Deferred loss on debt refunding, net	14,918	19,501
Differences between pension plan expected and actual experience	1,827	2,404
Net difference between pension plan projected and actual earnings on pension plan investments	-	4,591
Change in proportion, OPEB plans	28	-
Contributions subsequent to the measurement date		
OPEB plans	354	-
Pension plan	3,635	4,326
TOTAL DEFERRED OUTFLOWS OF RESOURCES	20,762	30,822
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 1,700,105	\$ 1,597,308

(continued)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2018 AND 2017**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION

(in thousands)

	2018	2017
CURRENT LIABILITIES		
Trade and contracts payable	\$ 23,281	\$ 21,573
Contract retention	7,886	6,527
Accrued salaries and wages	2,476	2,211
Current portion of bonds payable	33,601	31,895
Variable rate demand bonds	50,000	50,000
Current portion of compensated absences	5,541	5,279
Debt interest payable	11,664	11,803
Other liabilities	5,465	5,065
TOTAL CURRENT LIABILITIES	139,914	134,353
LONG-TERM LIABILITIES		
Compensated absences	2,863	3,124
Net OPEB liability	18,149	-
Net pension liability	22,075	37,673
Bonds payable	807,841	764,888
TOTAL LONG-TERM LIABILITIES	850,928	805,685
TOTAL LIABILITIES	990,842	940,038
DEFERRED INFLOWS OF RESOURCES		
Differences between expected and actual experience		
OPEB plans	87	-
Pension plan	4,519	2,992
Changes of assumptions		
OPEB plans	221	-
Pension plan	3,113	-
Net difference between projected and actual earnings on:		
OPEB plan investments	867	-
Pension plan investments	2,827	-
TOTAL DEFERRED INFLOWS OF RESOURCES	11,634	2,992
NET POSITION		
Net investment in capital assets	512,398	428,670
Restricted for debt service	27,799	22,701
Unrestricted	157,432	202,907
TOTAL NET POSITION	697,629	654,278
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 1,700,105	\$ 1,597,308

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
FOR THE FISCAL YEARS ENDED JUNE 30, 2018 and 2017

(in thousands)	2018	2017
OPERATING REVENUES		
Wastewater treatment charges	\$ 275,539	\$ 254,961
Miscellaneous	3,504	3,669
TOTAL OPERATING REVENUES	279,043	258,630
 OPERATING EXPENSES		
Wastewater treatment	116,982	113,100
General and administrative	40,480	40,287
Depreciation and amortization	52,349	49,311
TOTAL OPERATING EXPENSES	209,811	202,698
 OPERATING INCOME	69,232	55,932
 NON-OPERATING REVENUES (EXPENSES)		
Wastewater facility charges	6,673	7,511
Investment income	3,654	2,287
Bond interest subsidy	2,330	2,275
Change in fair value of investments	(1,382)	(1,119)
Capital distributions to localities	(311)	(138)
Bond issuance costs	(1,061)	(42)
Interest expense	(20,226)	(22,630)
NET NON-OPERATING EXPENSES	(10,323)	(11,856)
INCOME BEFORE CAPITAL CONTRIBUTIONS	58,909	44,076
 CAPITAL CONTRIBUTIONS		
State capital grants received	2,502	7,462
Other capital contributions	2,124	1,136
CAPITAL CONTRIBUTIONS	4,626	8,598
 CHANGE IN NET POSITION	63,535	52,674
 TOTAL NET POSITION - Beginning	654,278	601,604
Opening adjustment of net position (Note 14)	(20,184)	-
 TOTAL NET POSITION - Ending	\$ 697,629	\$ 654,278

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED JUNE 30, 2018 and 2017

(in thousands)	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	\$ 274,994	\$ 256,532
Other operating revenues	3,504	3,669
Cash payments to suppliers for goods and services	(107,556)	(105,998)
Cash payments to employees for services	(54,894)	(52,768)
Net cash provided by operating activities	<u>116,048</u>	<u>101,435</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Capital distributions to localities	<u>(311)</u>	<u>(138)</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Wastewater facility charges	6,673	7,511
Acquisition and construction of property, plant and equipment	(105,864)	(110,822)
Proceeds from capital debt	78,465	-
Bond interest subsidy	2,330	2,275
Principal paid on capital debt	(25,962)	(26,568)
State capital grants	3,275	10,658
Other capital contributions	2,124	1,136
Bond issuance costs	(1,061)	(42)
Interest paid on capital debt	(31,208)	(31,416)
Net cash used in capital and related financing activities	<u>(71,228)</u>	<u>(147,268)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of investments	(70,584)	(97,549)
Sales and maturities of investments	68,799	96,296
Interest and dividends on investments	3,654	2,128
Net cash provided by investing activities	<u>1,869</u>	<u>875</u>
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS AND CASH AND CASH EQUIVALENTS - RESTRICTED	46,378	(45,096)
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT BEGINNING OF YEAR	<u>114,777</u>	<u>159,873</u>
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT END OF YEAR	<u>\$ 161,155</u>	<u>\$ 114,777</u>

Reconciliation of Operating Income to Net Cash Provided by Operating Activities

(in thousands)		
Operating income	\$ 69,232	\$ 55,932
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	52,349	49,311
(Increase) decrease in operating assets		
Accounts receivable	(2,281)	(831)
Inventory	835	(246)
Net change in other current assets	289	348
Increase (decrease) in operating liabilities		
Trade and contracts payable	(1,529)	(654)
Accrued salaries and wages	265	305
Compensated absences	1	328
Net change in other liabilities	400	(1,997)
OPEB liabilities	(1,242)	-
Pension liabilities	(2,271)	(1,061)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 116,048</u>	<u>\$ 101,435</u>
Noncash Capital and Related Financing Activities:		
Proceeds of refunding debt principal	\$ 86,075	\$ -
Refunding of debt principal	(86,075)	-
Accrual for capital expenditures	4,596	(10,491)
Amortization of premium	(6,716)	(5,943)
Amortization of deferred loss on bond refunding	(1,542)	(1,915)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018 and 2017**

NOTE 1 - GENERAL INFORMATION

Organization and Administration

The Hampton Roads Sanitation District (HRSD) was created by the Virginia General Assembly in 1940, as a political subdivision of the Commonwealth of Virginia (the Commonwealth), to construct, maintain, and operate a wastewater treatment system in the Hampton Roads area. The Hampton Roads Sanitation District Commission (the Commission) is HRSD's governing body and consists of eight members, appointed by the Governor. The Commission's functions were updated by Chapter 66 of the Acts of the Assembly of Virginia of 1960, as amended. The administration of HRSD is under the direction of a General Manager, supported by seven department directors.

Regulatory Oversight

HRSD's operations are subject to regulations established by the United States Environmental Protection Agency and the Virginia Department of Environmental Quality. HRSD currently meets all of its permit requirements. Changes in these regulations could require HRSD to modify its treatment processes and require additional capital investment and/ or incur additional costs.

Purpose of HRSD

HRSD was created for the specific purpose of abating pollution in the Hampton Roads area through the interception of wastewater outfalls, installation of interception service into new areas as necessary and providing treatment facilities. HRSD provides points of interception throughout the region. The responsibility of providing lateral sewers and subtrunk facilities to carry sewage from industries, residences and businesses is generally the responsibility of the local municipal governments.

Corporate Limits of HRSD

The geographical limits of HRSD include:

City of Chesapeake	City of Suffolk	King and Queen County
City of Hampton	City of Virginia Beach	King William County
City of Newport News	City of Williamsburg	Mathews County
City of Norfolk	Gloucester County	Middlesex County
City of Poquoson	Isle of Wight County	Surry County*
City of Portsmouth	James City County	York County

*Excluding the Town of Claremont

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

HRSD is a political subdivision of the Commonwealth and a government instrumentality. The Commission is granted corporate powers by the *Code of Virginia*. The Governor of the Commonwealth appoints the Commission members, who serve at his pleasure. HRSD is reported in the Commonwealth's Comprehensive Annual Financial Report as a discretely presented component unit. The Commonwealth is not obligated to repay HRSD's debt. HRSD derives its revenues primarily from charges for wastewater treatment services. HRSD has no taxing authority.

Basis of Accounting

The accompanying financial statements report the financial position and results of operations of HRSD in accordance with U.S. generally accepted accounting principles (GAAP). Because HRSD is a political subdivision of the Commonwealth, the preparation of HRSD's financial statements are governed by the pronouncements of the Governmental Accounting Standards Board (GASB). These statements are prepared on an enterprise fund basis and present HRSD's operating revenues and expenses in a manner similar to a private business, where the costs, including depreciation, of providing services to the general public on a continuing basis are financed or recovered primarily through user charges.

An enterprise fund, a proprietary fund type, is accounted for on an economic resources measurement focus. All assets and liabilities, whether current or noncurrent, associated with its activities are included on its statements of net position. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in fund equity. The financial statements are presented using the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred.

Budgetary Accounting and Control

HRSD operates in accordance with annual operating and capital budgets prepared on a basis of accounting that is different from generally accepted accounting principles. The operating budget is adopted by department, with budgetary controls exercised administratively by management at the department level. The General Manager is authorized to transfer funds among departments without further approval by the Commission. Appropriations lapse at the end of the fiscal year. The Capital Budget represents a ten-year plan. Funds for the Capital Budget are appropriated throughout a fiscal year on a project basis. Transfers among projects require approval by the Commission. Appropriations for these budgets continue until the purpose of the appropriation has been fulfilled.

Cash Equivalents

All short-term investments that are highly liquid are considered to be cash equivalents. Cash equivalents are readily convertible to cash, and at the day of purchase, have an original maturity date of no longer than three months. Current restricted cash and cash equivalents are revenue bond proceeds held for construction of assets within the next 12 months, as well as cash restricted for debt service payments payable within the next year. Money market investments include accounts that are invested in government securities and are valued at net asset value (NAV) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), which is measured at amortized cost. See Note 3 and Note 13 for additional discussion of cash and cash equivalent and investment valuations. Noncurrent restricted cash and cash equivalents are revenue bond proceeds held for the construction of noncurrent assets expected to be spent after 12 months (see Note 3).

Investments

Investments, which consist of U.S. government obligations including agencies, FDIC-guaranteed corporate notes, other corporate notes and bonds, and municipal bonds, are reported at fair value. HRSD's investment practices are governed by its formal investment policy.

Allowance for Uncollectible Accounts

HRSD provides an allowance for estimated uncollectible accounts receivable based on its bad debt experience. The balance in the allowance for uncollectible accounts is considered by management to be sufficient to cover anticipated losses on reported receivable balances.

Inventory

Inventory is carried at the lower of cost or market value and consists primarily of operating and maintenance materials.

Property, Plant and Equipment

HRSD funds its capital improvement program through the issuance of debt and its own resources. The proceeds of debt are reported as restricted assets. Generally, for projects funded with both debt proceeds and other resources, it is HRSD's policy to use available debt proceeds to pay project expenditures prior to using its own resources.

Property, plant and equipment purchased or constructed are reported at cost, including interest cost on funds borrowed to finance the construction of major capital additions. The capitalization threshold is \$5,000. Donated assets are reported at acquisition value at the date of donation. Property, plant and equipment are depreciated using the straight-line method over the following estimated useful lives:

Treatment plants, buildings and facilities	30 years
Interceptor systems	50 years
Office furniture and equipment	5-10 years
Software and intangible assets	5-7 years
Automotive	5 years

Depreciation and amortization recognized on property, plant and equipment is an operating expense.

Deferred Outflows and Inflows of Resources

In addition to assets, the statements of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expenses) until then. HRSD has five items that qualify for reporting in this category. The first is the deferred charge on refunding reported in the statements of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The second through fourth amounts are differences between expected and actual experience on the OPEB and pension plans; the net differences between projected and actual earnings on OPEB and pension plan investments; and the change in proportion for OPEB plans. These differences will be recognized in pension expense in future reporting periods. The fifth deferred charge is for OPEB and pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2017 and 2016. These contributions will be recognized as a reduction of the Net Pension Liability during the years ended June 30, 2019 and 2018, respectively.

In addition to liabilities, the statements of net position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The three types of these items that HRSD has for the OPEB and pension plans are the differences between expected and actual experience, the changes of OPEB and pension assumptions, and the net difference between projected and actual earnings on OPEB and pension plan investments, which will be recognized in pension expense in future reporting periods.

Revenue Recognition

Generally, wastewater treatment charges are computed based on a user's water consumption. These charges are recognized as revenue when billed. Revenues earned but unbilled through June 30 of each fiscal year are accrued at year-end. Wastewater facility charges are computed based on a new connection's water meter size and potential for high strength pollutant discharges, and are recognized as revenue prior to the issuance of a building or operating permit.

Operating and Non-operating Revenues and Expenses Recognition

HRSD distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses result from providing services and producing and delivering goods in connection with HRSD's principal service of providing wastewater treatment. The majority of operating revenues are from wastewater treatment, but other associated miscellaneous income from other related services and charges are also included. Revenues and expenses not meeting the operating definition are reported as non-operating. These consist mainly of wastewater facility charges, investment income, capital contributions and interest expense.

Compensated Absences

All permanent employees earn leave upon starting a full-time position. The amount and type of leave earned is based upon the employee's date of hire and years of service and is expensed as employees earn the right to these benefits.

Permanent employees hired prior to January 1, 2014 earn from 15 to 27 days of annual leave per year. The maximum annual leave an employee may accumulate at year-end varies by the years of service, with the maximum being 54 days. An employee has a vested right to their annual leave when earned. These employees also earn eight hours per month of sick leave regardless of the number of years of service. The amount of sick leave that may be accumulated is unlimited. After five years of service with HRSD, an employee has vested rights to 35 percent of accumulated sick leave to a maximum of \$10,000. For these employees, long-term disability (LTD) insurance is an optional employee paid benefit that replaces part of their income if the employee suffers a serious illness or injury and can't work for an extended period of time.

Permanent employees hired after January 1, 2014 earn 8 hours of paid time off for each two-week pay period. Employees may use accumulated paid time off for any type of absence from work, subject to supervisor approval. The maximum paid time off an employee may accumulate at year-end is 208 hours. After five years of service with HRSD, an employee has vested rights to 50 percent of their accumulated paid time off at separation. For these employees, HRSD also provides a state mandated long-term disability (LTD) benefit since these employees are not eligible for disability retirement benefits through Virginia Retirement System. The long-term disability benefit provides income replacement for employees who become disabled and unable to work for an extended period of time due to a non work-related or work-related condition (as determined under the Virginia Workers' Compensation Act). Long-

term disability benefits begin at the expiration of an additional state mandated employer paid short-term disability (STD) benefit period of 125 days.

Postemployment Benefits Other Than Pensions (OPEB)

HRSD employees participate in three postemployment benefits other than pensions (other postemployment benefits or OPEB) plans:

The HRSD Retiree Health Plan (RHP) is a single employer, defined benefit plan that provides health and dental benefit plans for eligible members through a self-funded plan administered by a third-party vendor. HRSD administers the Plan through the Hampton Roads Sanitation District Retiree Health Trust. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the RHP and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by the RHP. For this purpose, the RHP recognizes benefit payments when due and payable in accordance with the benefit terms.

The Virginia Retirement System (VRS) Political Subdivision Health Insurance Credit Program (HIC) is a multiple-employer, agent defined benefit plan that provides a credit toward the cost of health insurance coverage for retired political subdivision employees of participating employers. The Political Subdivision Health Insurance Credit Program was established pursuant to §51.1-1400 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. For purposes of measuring the net HIC OPEB liability, deferred outflows of resources and deferred inflows of resources related to the HIC OPEB, and the HIC OPEB expense, information about the fiduciary net position of the VRS HIC; and the additions to/deductions from the VRS HIC's fiduciary net position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The VRS Group Life Insurance Program is a multiple employer, costsharing plan, that provides coverage to state employees, teachers, and employees of participating political subdivisions. The Group Life Insurance Program was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Group Life Insurance Program is a defined benefit plan that provides a basic group life insurance benefit for employees of participating employers. For purposes of measuring the net Group Life Insurance Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Group Life Insurance Program OPEB, and Group Life Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Group Life Insurance program OPEB and the additions to/deductions from the VRS Group Life Insurance Program OPEB's fiduciary net position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Pensions

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the VRS, which acts as a common investment and administrative agent for political subdivisions in the Commonwealth. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of HRSD's Retirement Plan and the additions to or deductions from HRSD's Retirement Plan's net fiduciary position have been determined on the same basis as they were reported to HRSD by VRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

Use of Estimates

The preparation of these financial statements requires management to make estimates and assumptions. These estimates affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from management's estimates.

New Accounting Pronouncement

During the fiscal year ended June 30, 2018, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than*

Pensions, as amended; and GASB Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. The objective of Statement No. 75 is to improve the usefulness of information for decisions made by the various users of the general purpose external financial reports (financial reports) of governments whose employees, both active employees and inactive employees, are provided with postemployment benefits other than pensions. As a result of the adoption of Statement No. 75, HRSD has made an adjustment to net position as of July 1, 2017, to recognize the cumulative effect of the change in accounting for pensions as further discussed in Note 14.

The financial statements as of and for the year ended June 30, 2017, presented for comparative purposes, reflect the requirements of Statement No. 45 and Statement No. 57.

NOTE 3 - DEPOSITS AND INVESTMENTS

Deposits

Custodial Credit Risk. This risk is associated with the inability of a governmental entity to recover deposits from a financial institution in the event of a failure. At June 30, 2018 and 2017, the carrying values of HRSD's deposits were \$24,753,000 and \$21,904,000, respectively, and the bank balances were \$27,446,000 and \$25,325,000, respectively. All of the bank balances at June 30, 2018 were covered by federal depository insurance or collateralized in accordance with the Virginia Security for Public Deposits Act (the Act). In accordance with the Act, the depository institution pledged collateral in the form of federal obligations with a fair value equal to 110 percent of HRSD's deposits with a third party trustee in the name of the Treasurer of the Commonwealth. In the event that the banking institution fails, the Treasurer will take possession of the collateral, liquidate it and reimburse HRSD up to the value of its deposits. The State Treasury Board is responsible for monitoring compliance with the collateralization and reporting requirements of the Act and for notifying local governments of compliance by banks.

Credit Risk. HRSD invests overnight in money market accounts that are invested in government securities and the PFM Funds Prime Series – SNAP Fund Class (SNAP) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), for which oversight is provided by the Treasury Board of Virginia. As of June 30, 2018 and 2017, HRSD had deposits in Merrill Lynch's FFI Government Fund and Fidelity's Government Money Market Fund that were rated AAAM by Standard & Poor's. HRSD's investment in the LGIP was rated AAAM by Standard & Poor's.

Investments

As of June 30, HRSD had the following investments and maturities:

(in thousands)

Investment Maturities (in years)

As of June 30, 2018	<u>Fair Value</u>	<u>Less Than 1</u>	<u>1-3</u>
<u>Investment Type</u>			
U.S. Treasury Securities	\$ 53,627	\$ 2,998	\$ 50,629
Federal Agency Notes / Bonds	26,918	3,611	23,307
Certificates of Deposit	7,324	2,439	4,885
Commercial Paper	4,921	4,921	-
Corporate Notes / Bonds	20,633	3,902	16,731
Municipal Bonds	1,452	-	1,452
Supranationals	9,215	-	9,215
Total	\$ 124,090	\$ 17,871	\$ 106,219
As of June 30, 2017	<u>Fair Value</u>	<u>Less Than 1</u>	<u>1-3</u>
<u>Investment Type</u>			
U.S. Treasury Securities	\$ 38,809	\$ -	\$ 38,809
Federal Agency Notes / Bonds	33,688	-	33,688
Certificates of Deposit	12,110	7,207	4,903
Commercial Paper	2,424	2,424	-
Corporate Notes / Bonds	24,913	3,503	21,410
Municipal Bonds	2,166	-	2,166
Supranationals	9,577	1,126	8,451
Total	\$ 123,687	\$ 14,260	\$ 109,427

Interest Rate Risk. In accordance with its investment policy, HRSD manages its exposure to declines in fair values by limiting the weighted average maturity of various portfolios in a manner that meets HRSD's liquidity needs.

Custodial Credit Risk. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustees for its investments, the Bank of New York Trust Department and the US Bank Trust Department, as recipients of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2018 and 2017, the Trust Department of the Bank of New York held approximately \$67,278,000 and \$123,687,000, respectively, in investments in the Trustee's name for HRSD and at June 30, 2018, the Trust Department of US Bank held approximately \$124,090,000 in investments in the Trustee's name for HRSD.

Credit Risk. HRSD's Trust Agreement permits HRSD to invest in investment instruments that are authorized by the Commonwealth. HRSD's investment securities using the Standard & Poor's credit quality ratings scale are presented below:

As of June 30, 2018		Standard & Poor's Credit Rating by Investment Type						
(in thousands)	AAA	AA+	AA	AA-	A+	A-1+	A-1	Total
<u>Investments</u>								
U.S. Treasury Securities	\$ -	\$ 53,627	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,627
Federal Agency Notes / Bonds	-	26,918	-	-	-	-	-	26,918
Certificates of Deposit	-	-	-	4,885	-	2,439	-	7,324
Commercial Paper	-	-	-	-	-	-	4,921	4,921
Corporate Notes / Bonds	1,318	5,218	2,731	11,366	-	-	-	20,633
Municipal Bonds	-	-	-	1,452	-	-	-	1,452
Supranationals	9,215	-	-	-	-	-	-	9,215
Total Investments	\$ 10,533	\$ 85,763	\$ 2,731	\$ 17,703	\$ -	\$ 2,439	\$ 4,921	\$ 124,090

As of June 30, 2017		Standard & Poor's Credit Rating by Investment Type						
(in thousands)	AAA	AA+	AA	AA-	A+	A-1+	A-1	Total
<u>Investments</u>								
U.S. Treasury Securities	\$ -	\$ 38,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,809
Federal Agency Notes / Bonds	-	33,688	-	-	-	-	-	33,688
Certificates of Deposit	-	-	-	9,608	-	2,502	-	12,110
Commercial Paper	-	-	-	-	-	-	2,424	2,424
Corporate Notes / Bonds	3,015	5,245	1,867	12,581	2,205	-	-	24,913
Municipal Bonds	-	-	-	-	2,166	-	-	2,166
Supranationals	9,577	-	-	-	-	-	-	9,577
Total Investments	\$ 12,592	\$ 77,742	\$ 1,867	\$ 22,189	\$ 4,371	\$ 2,502	\$ 2,424	\$ 123,687

Concentration of Credit Risk. HRSD's investment policy includes a maximum exposure for each individual issuer for its permitted investment categories. U.S. Treasury obligations, collateralized bank deposits, money market funds and local government investment pools, however, are not subject to these issuer limits. Federal agency obligations and repurchase agreements are limited to 35 percent per issuer. Municipal obligations, commercial paper, and bankers acceptances are limited to 5 percent per issuer. Corporate notes and negotiable certificates of deposit are limited to 3 percent per issuer.

The change in fair value for the years ended June 30:

(in thousands)	<u>2018</u>	<u>2017</u>
Fair value of investments, end of year	\$ 124,090	\$ 123,687
Add: Proceeds of investments sold or maturing during the year	68,799	96,296
Less: Cost of investments purchased during the year	(70,584)	(97,549)
Less: Fair value of investments, beginning of year	<u>(123,687)</u>	<u>(123,553)</u>
Change in fair value of investments	<u>\$ (1,382)</u>	<u>\$ (1,119)</u>

The components of restricted cash and cash equivalents and investments at June 30 are as follows:

(in thousands)	<u>2018</u>	<u>2017</u>
Debt service	\$ 27,799	\$ 22,701
Revenue bond construction funds - current	16,919	-
Revenue bond construction funds - noncurrent	50,359	-
Total cash and cash equivalents - restricted	<u>\$ 95,077</u>	<u>\$ 22,701</u>

HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, US Bank. Investments are reported at fair value. HRSD's OPEB investment practices are governed by its formal investment policy.

As of June 30, 2018, the plan had the following investments and maturities:

(in thousands)	
Domestic equity	\$ 19,546
International equity	10,301
Fixed income	17,227
Money market	29
Total Investments	<u>\$ 47,103</u>

Fixed income investments have an average maturity of 6.9 years and an average credit quality of A. Other investments do not have a stated maturity or credit rating.

Custodial Credit Risk. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustee for its investments the US Bank Trust Department, as recipient of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2018, the Trust Department of the US Bank held approximately \$47,103,000 in investments in the Trustee's name for HRSD.

NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

An analysis of the allowance for uncollectible accounts for the years ended June 30:

(in thousands)	<u>2018</u>	<u>2017</u>
Balance, beginning of year	\$ 2,445	\$ 2,282
Add: Current provision for uncollectible accounts	1,736	2,402
Less: Charge-off of uncollectible accounts	<u>(2,001)</u>	<u>(2,239)</u>
Balance, end of year	<u>\$ 2,180</u>	<u>\$ 2,445</u>

HRSD's collection ratios for the years ended June 30, 2018 and 2017 were 99.3 and 99.1 percent, respectively.

NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment activity for the years ended June 30:

(in thousands)	Balance			Transfers/			Balance		
	6/30/16	Additions	Retirements	6/30/17	Additions	Retirements	6/30/18		
<u>Non-Depreciable Capital Assets</u>									
Land	\$ 12,174	\$ -	\$ -	\$ 12,174	\$ -	\$ -	\$ 12,174		
Construction in progress	190,821	101,957	(44,729)	248,049	115,647	(141,413)	222,283		
<u>Depreciable Capital Assets</u>									
Treatment plants	1,170,180	14,018	-	1,184,198	57,993	-	1,242,191		
Interceptor systems	498,952	26,521	-	525,473	83,943	-	609,416		
Buildings	45,359	3,376	-	48,735	397	-	49,132		
Small community facilities	25,305	224	-	25,529	20	-	25,549		
Office equipment	44,612	1	-	44,613	-	-	44,613		
Automotive	17,342	838	-	18,180	806	-	18,986		
Other equipment	34,011	2,055	-	36,066	523	-	36,589		
Software and intangible assets	39,027	598	(1)	39,624	125	-	39,749		
Total	\$ 2,077,783	\$ 149,588	\$ (44,730)	\$ 2,182,641	\$ 259,454	\$ (141,413)	\$ 2,300,682		
Less accumulated depreciation and amortization									
Treatment plants	(613,035)	(27,547)	-	(640,582)	(28,667)	-	(669,249)		
Interceptor systems	(147,125)	(9,683)	-	(156,808)	(10,232)	-	(167,040)		
Buildings	(14,930)	(1,451)	-	(16,381)	(1,565)	-	(17,946)		
Small community facilities	(6,656)	(585)	-	(7,241)	(590)	-	(7,831)		
Office equipment	(39,298)	(1,541)	-	(40,839)	(1,219)	-	(42,058)		
Automotive	(15,407)	(703)	-	(16,110)	(784)	-	(16,894)		
Other equipment	(23,009)	(2,712)	-	(25,721)	(2,697)	-	(28,418)		
Software and intangible assets -amortization	(17,919)	(5,089)	1	(23,007)	(6,595)	-	(29,602)		
Total	(877,379)	(49,311)	1	(926,689)	(52,349)	-	(979,038)		
Net property, plant and equipment	\$ 1,200,404	\$ 100,277	\$ (44,729)	\$ 1,255,952	\$ 207,105	\$ (141,413)	\$ 1,321,644		

Additions include \$7,581,000 and \$5,743,000 of capitalized interest during the years ended June 30, 2018 and 2017, respectively.

NOTE 6 - COMPENSATED ABSENCES

The liability for vested annual, sick, paid time off and compensatory leave at June 30:

(in thousands)	Balance			Balance			Balance
	6/30/16	Earned	Taken	6/30/17	Earned	Taken	6/30/18
Annual leave	\$ 4,994	\$ 3,384	\$ (3,326)	\$ 5,052	\$ 3,191	\$ (3,354)	\$ 4,889
Sick leave	2,711	1,416	(1,348)	2,779	1,422	(1,372)	2,829
Paid time off	370	807	(605)	572	929	(815)	686
Total	8,075	\$ 5,607	\$ (5,279)	8,403	\$ 5,542	\$ (5,541)	8,404
Less: Current liability	4,672			5,279			5,541
Long-term liability	\$ 3,403			\$ 3,124			\$ 2,863

NOTE 7 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

Plan Description

As discussed in Note 2, HRSD provides postemployment benefits other than pensions (OPEB) for its employees through three OPEB plans: the Hampton Roads Sanitation District Retiree Health Plan (RHP), a single employer defined benefit plan, and two plans administered by the Virginia Retirement System, the Group Life Insurance Plan (GLI), a multiple employer cost sharing plan, and the Political Subdivision Health Insurance Credit Plan (HIC), a multiple-employer, agent defined benefit plan.

RHP

The RHP was established and may be amended by the Commission. HRSD administers the RHP through the Hampton Roads Sanitation District Retiree Health Trust (the Trust), an irrevocable trust to be used solely for providing benefits to eligible retired employees and their beneficiaries (members) in the RHP. HRSD's contributions to the Trust are dedicated irrevocably to providing post-retirement health benefits, the RHP assets are exclusively dedicated to providing benefits to members, and the RHP assets of the Trust are not subject to the claims of HRSD creditors or the Plan administrator. Employer contributions are recorded in the year they are made. Investments are reported at market value based on published prices and quotations. The RHP does not issue stand-alone financial statements.

Eligible Employees

HRSD employees are eligible for benefits upon retirement provided the employee has 15 years of service with HRSD or 10 years of service with HRSD plus 10 years of service with another Virginia Retirement System (VRS) employer with a retiree health plan; are qualified for unreduced retirement benefits from VRS; and are enrolled in the HRSD Health Insurance Plan prior to retirement. Participating beneficiaries may continue coverage under the plan after the death of the retiree. Medicare eligible participants are required to enroll in both Medicare Part A and Part B, and may participate in a Medicare supplement plan. Members not eligible for Medicare may participate in a high deductible health plan.

Benefits provided

The RHP health plan provides medical and prescription services using both in network and out of network providers through a self-funded plan administered by a third-party vendor. HRSD purchases stop-loss insurance to limit its exposure to catastrophic medical costs. Members may elect to purchase dental and vision benefit plans at their own expense.

GLI

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS GLI upon employment. This plan is administered by the VRS, along with pensions and other OBEB plans, for public employer groups in the Commonwealth of Virginia.

In addition to the Basic Group Life Insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the Group Life Insurance Program OPEB.

The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits follows:

Eligible Employees

The Group Life Insurance Program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program. Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.

Benefit Amounts

The benefits payable under the Group Life Insurance Program have several components.

- Natural Death Benefit – The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.
- Accidental Death Benefit – The accidental death benefit is double the natural death benefit.
- Other Benefit Provisions – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:
 - Accidental dismemberment benefit

- Safety belt benefit
- Repatriation benefit
- Felonious assault benefit
- Accelerated death benefit option

Reduction in Benefit Amounts

The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value.

Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at \$8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and is currently \$8,111.

HIC

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS Political Subdivision Health Insurance Credit Program upon employment. This plan is administered by the VRS, along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia. Members earn one month of service credit toward the benefit for each month they are employed and for which their employer pays contributions to VRS. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering the spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

The specific information about the Political Subdivision Health Insurance Credit Program OPEB, including eligibility, coverage and benefits follows:

Eligible Employees

The Political Subdivision Retiree Health Insurance Credit Program was established July 1, 1993 for retired political subdivision employees of employers who elect the benefit and who retire with at least 15 years of service credit. Eligible employees of participating political subdivisions are enrolled automatically upon employment. They include full-time permanent salaried employees of the participating political subdivision who are covered under the VRS pension plan.

Benefit Amounts

The political subdivision's Retiree Health Insurance Credit Program provides the following benefits for eligible employees:

- At Retirement – For employees who retire, the monthly benefit is \$1.50 per year of service per month with a maximum benefit of \$45.00 per month.
- Disability Retirement – For employees who retire on disability or go on long-term disability under the Virginia Local Disability Program (VLDP), the monthly benefit is \$45.00 per month.

Health Insurance Credit Program Notes:

- The monthly Health Insurance Credit benefit cannot exceed the individual premium amount.
- No health insurance credit for premiums paid and qualified under the VRS Line of Duty Act Program (LODA), however, the employee may receive the credit for premiums paid for other qualified health plans.
- Employees who retire after being on long-term disability under VLDP must have at least 15 year of service credit to qualify for the health insurance credit as a retiree.

Employees Covered by Benefit Terms

As of the June 30, 2017 actuarial valuation date the following employees were covered by the benefit terms of the RHP:

Beneficiaries currently receiving benefit payments	152
Active employees	<u>708</u>
Total	<u><u>860</u></u>

There are no inactive employees entitled to but not yet receiving plan benefits.

As of the June 30, 2016 actuarial valuation date the following employees were covered by the benefit terms of the HIC:

Inactive members or their beneficiaries currently receiving benefit payments	218
Vested	<u>7</u>
Total Inactive Members	<u>225</u>
Active employees	<u>781</u>
Total	<u><u>1,006</u></u>

Contributions

RHP contribution requirements are actuarially determined. Funding is subject to approval by the Commission. Medicare-eligible members contribute \$45 per month for retiree-only coverage and from \$442 to \$460 per month for retiree and dependent coverage. Members not eligible for Medicare contribute \$120 per month for retiree-only coverage and from \$517 to \$535 per month for retiree and dependent coverage. HRSD funds the cost of coverage under the RHP by paying the difference between the contributions it requires retirees to make and the actuarially determined contribution (ADC). The current employer contribution rate is approximately 5 percent of annual covered payroll. HRSD contributed \$2,729,000, and Retirees contributed \$303,000, to the RHP for the year ended June 30, 2018.

The GLI contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Group Life Insurance Program from the entity were \$259,000 and \$250,000 for the years ended June 30, 2018 and June 30, 2017, respectively.

The HIC contribution requirement for active employees is governed by §51.1-1402(E) of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. HRSD's contractually required employer contribution rate for the year ended June 30, 2018 was 0.19% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Political Subdivision Health Insurance Credit Program were \$95,000 and \$91,000 for the years ended June 30, 2018 and June 30, 2017, respectively.

RHP OPEB Expenses and Deferred Outflows of Resources Related to RHP OPEB

HRSD recognized RHP OPEB expense of \$2,007,000 for the year ended June 30, 2018. At June 30, 2018, HRSD reported deferred inflows of resources related to OPEB from the following sources:

	<u>Deferred Inflows of Resources</u> (in thousands)
Year ended June 30, 2018:	
Net difference between projected and actual earnings on plan investments	\$ 692

HRSD's measurement date is its fiscal year end so there are no deferred outflows of resources resulting from contributions subsequent to the measurement date. Other amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense in future reporting periods as follows:

Year ended June 30, 2018:	(in thousands)
2019	\$ (173)
2020	(173)
2021	(173)
2022	(173)
2023	-
Thereafter	-

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB

At June 30, 2018, HRSD reported a liability of \$3,915,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2017 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer's proportion of the Net GLI OPEB Liability was based on HRSD's actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, HRSD's proportion was 0.26016% as compared to 0.25830% at June 30, 2016. For the year ended June 30, 2018, HRSD recognized GLI OPEB expense of \$49,000. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2018, HRSD reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 87
Net difference between projected and actual earnings on GLI OPEB program investments	-	147
Change in assumptions	-	202
Changes in proportion	28	-
Employer contributions subsequent to the measurement date	259	-
Total	<u>\$ 287</u>	<u>\$ 436</u>

\$259,000 reported as deferred outflows of resources related to the GLI OPEB resulting from the HRSD's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year ended June 30	(in thousands)
2019	\$ (85)
2020	(85)
2021	(85)
2022	(85)
2023	(48)
Thereafter	(20)

HIC OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to HIC OPEB

For the year ended June 30, 2018, HRSD recognized Health Insurance Credit Program OPEB expense of \$88,000. At June 30, 2018, HRSD reported deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Health Insurance Credit Program from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on HIC OPEB program investments	\$ -	\$ 28
Change in assumptions	-	19
Employer contributions subsequent to the measurement date	95	-
Total	<u>\$ 95</u>	<u>\$ 47</u>

\$95,000 reported as deferred outflows of resources related to the HIC OPEB resulting from HRSD's contributions subsequent to the measurement date will be recognized as a reduction of the Net HIC OPEB Liability in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB will be recognized in the HIC OPEB expense in future reporting periods as follows:

Year ended June 30	(in thousands)
2019	\$ (10)
2020	(10)
2021	(10)
2022	(10)
2023	(4)
Thereafter	(3)

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes for the RHP are based on the substantive plan (the plan as understood by HRSD and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The information presented in the required supplemental schedules was determined as part of the actuarial valuations at the dates indicated. As of June 30, 2018 the actuarial value of RHP assets is \$46,271,000 and the market value is \$47,103,000.

Additional information for the RHP at June 30, 2017, using the June 30, 2017 valuation, which has been rolled forward to the Net OPEB Liability measurement date of June 30, 2018, follows:

Actuarial cost method	Projected unit credit method
Amortization method	Level percent of pay, closed
Amortization period	An experience gain/loss base is created each year and amortized over a 15 year period
Asset valuation	Smoothed market value with phase-in, using a 5-year smoothing period
Actuarial assumptions:	
Discount Rate	6%
Medical cost trend:	
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years
Post Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.4% after 53 years
Assumed rate of inflation	2.2%

Mortality rates for the RHP are as follows:

Healthy	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.
Disabled	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.

The total GLI and HIC OPEB liabilities were based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including inflation	3.5 percent - 5.35 percent
Investment rate of return	7.0 percent, net of investment expenses, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of the OPEB liabilities.

Mortality tables and assumptions for GLI and HIC are as follows:

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, postretirement healthy, and disabled)	Updated to a more current mortality table – RP2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%

Long-Term Expected Rate of Return

The long-term expected rate of return on RHP investments was determined using an economic building block approach that projects economic and corporate profit growth and takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity, and labor force growth. The returns presented here are geometric return projections based on long-term capital market assumptions. The asset target allocations are governed by its formal investment policy. The best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	5.20%	2.03%
International Developed Equity	15.00%	5.20%	0.78%
International Emerging Markets Equity	6.00%	5.20%	0.31%
Core Fixed	20.00%	3.00%	0.60%
Investment Grade Corporate Debt	10.00%	3.75%	0.38%
Emerging Markets Debt	5.00%	4.75%	0.24%
High Yield	5.00%	4.25%	0.21%
Total	<u>100.00%</u>		<u>4.55%</u>
		Inflation	<u>2.50%</u>
	* Expected arithmetic nominal return		<u>7.05%</u>

* The above allocation provides a one-year return of 7.05%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

The long-term expected rate of return on the GLI and HIC investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System's investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
		Inflation	<u>2.50%</u>
	* Expected arithmetic nominal return		<u>7.30%</u>

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rates

The discount rate used to measure the total pension liability for the RHP, as of June 30, 2018, was 6.0%. The projection of cash flows used to determine the discount rate assumes that HRSD contributions will be made in accordance with the funding plan established by an independent actuarial review.

The discount rate used to measure the total GLI and HIC liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the GLI and HIC will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI and HIC fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI and HIC liability.

Change in Net OPEB Liability

HRSD's Net OPEB Liability (NOL) as of June 30, 2018 for the RHP was measured as of June 30, 2018 using a June 30, 2017 valuation, which has been rolled forward to the June 30, 2018 measurement date.

RHP	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
(in thousands)	(a)	(b)	(a) - (b)
Balances at June 30, 2016	\$ 57,416	\$ 42,526	\$ 14,890
Changes for the year - Increase (Decrease):			
Service cost	1,260	-	1,260
Interest	3,391	-	3,391
Contributions - employer	-	2,729	(2,729)
Contributions - employee	-	303	(303)
Net investment income	-	3,450	(3,450)
Benefit payments, including refunds of employee contributions	(1,791)	(1,791)	-
Administrative expense	-	(114)	114
Net changes	<u>2,860</u>	<u>4,577</u>	<u>(1,717)</u>
Balances at June 30, 2017	<u>\$ 60,276</u>	<u>\$ 47,103</u>	<u>\$ 13,173</u>

HRSD's net Health Insurance Credit OPEB liability was measured as of June 30, 2017. The total Health Insurance Credit OPEB liability was determined by an actuarial valuation performed as of June 30, 2016, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

HIC (in thousands)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2016	\$ 1,891	\$ 780	\$ 1,111
Changes for the year - Increase (Decrease):			
Service cost	27	-	27
Interest	129	-	129
Changes of assumptions	(22)		(22)
Difference between expected and actual experience	-	-	-
Contributions - employer	-	91	(91)
Net investment income	-	90	(90)
Benefit payments, including refunds of employee contributions	(94)	(94)	-
Administrative expense	-	(1)	1
Other changes	-	4	(4)
Net changes	40	90	(50)
Balances at June 30, 2017	\$ 1,931	\$ 870	\$ 1,061

The NOL for the GLI represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated GLI plan fiduciary net position. As of June 30, 2017, NOL amounts for the GLI Plan as a whole are as follows:

(in thousands)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balance as of June 30, 2017 for FYE 2018	\$ 2,942,426	\$ 1,437,586	\$ 1,504,840
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		48.86%	

The total GLI OPEB liability is calculated by the VRS's actuary, and each plan's fiduciary net position is reported in the VRS's financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the VRS's notes to the financial statements and required supplementary information.

Sensitivity of the Net OPEB Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate

The following table presents the net RHP OPEB liability if it is calculated using a discount rate that is one percentage point lower (5.0%) or one percentage point higher (7.0%) than the current discount rate:

Discount Rate	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
Net RHP OPEB Liability (in thousands)	\$ 24,210	\$ 13,173	\$ 4,419

The following table presents the net RHP OPEB liability if it is calculated using a healthcare cost trend rate that is one percentage point lower (2.2%) or one percentage point higher (4.2%) than the current healthcare cost trend rate:

Ultimate Trend	1% Decrease (2.2%)	Healthcare Cost Trend Rate (3.2%)	1% Increase (4.2%)
Net RHP OPEB Liability (in thousands)	\$ 3,173	\$ 13,173	\$ 26,116

The following presents the net GLI OPEB liability using the discount rate of 7.00%, as well as what the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
GLI Net OPEB Liability (in thousands)	\$ 5,064	\$ 3,915	\$ 2,984

The following presents the net HIC OPEB liability using the discount rate of 7.00%, as well as what the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
HIC Net OPEB Liability (in thousands)	\$ 1,263	\$ 1,061	\$ 887

GLI Fiduciary Net Position and HIC Plan Data

GLI Fiduciary Net Position and HIC Plan Data is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Other disclosures related to OPEB for the fiscal year ended June 30, 2017

As described in Note 2, during the fiscal year ended June 30, 2018, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Information related to OPEB for the fiscal year ended June 30, 2017 was not restated, so the following information presents information required by GASB Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*.

Annual OPEB Cost

HRSD's annual OPEB cost is calculated based on an actuarially determined ARC. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. Information related to the HRSD's annual OPEB cost, ARC, actual contributions, and changes to the net OPEB obligation is as follows:

(in thousands) Fiscal Year Ended	ARC	Actuarial Adjustment	Annual OPEB Cost	Percentage of Annual ARC Contributed	Net OPEB Obligation
2017	\$ 2,558	\$ -	\$ 2,558	100%	\$ -
2016	\$ 2,178	\$ -	\$ 2,178	100%	\$ -

Funded Status and Funding Progress

The funded status of the plan as of June 30, 2017 was as follows:
(in thousands)

	<u>2017</u>
Actuarial accrued liability (AAL)	\$ 49,303
Actuarial value of plan assets	<u>42,468</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 6,835</u>
Funded ratio (actuarial value of plan assets/AAL)	86.1%
Annual covered payroll (active plan members)	\$ 49,286
UAAL as a percentage of covered payroll	13.9%

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the possibility of occurrence of events far into the future. Examples include assumptions about future employment, investment returns, mortality and healthcare cost trends. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

NOTE 8 – DEFINED BENEFIT PENSION PLAN

Plan Description

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the Virginia Retirement System (VRS). All full-time, salaried permanent employees of HRSD are automatically covered by the Plan upon employment. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave and previously refunded service.

VRS administers three different benefit structures for covered employees – Plan 1, Plan 2 and the Hybrid Retirement Plan (HRP). The specific information for each plan is set out below:

- Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 1 if their membership date is before July 1, 2010 and they were vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced retirement benefit beginning at age 65 with at least five years of service credit or at age 55 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.
- Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 2 if their membership date is on or after July 1, 2010, and they were not vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.
- The Hybrid Retirement Plan (HRP) combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window from January 1 through April 30, 2014. The employee's retirement benefit is funded through mandatory and voluntary contributions made by the employee and HRSD to both the defined benefit and the defined contribution components of the plan. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.

Members in Plan 1 and Plan 2 contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. HRSD makes a separate actuarially determined contribution to VRS for all covered employees. The retirement benefit for members in the HRP is funded through mandatory and voluntary contributions made by the member and HRSD to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.

Members in Plan 1 and Plan 2 earn creditable service for each month they are employed in a covered position, and vest when they have at least five years (60 months) of creditable service. Members in the HRP earn one month of service credit for each month they are employed in a covered position for the defined benefit component, and service credits are used to determine vesting for the employer contribution portion of the plan. HRP members are always 100% vested in the defined contributions they make, and upon retirement or leaving covered employment are eligible to withdraw employer contributions of 50%, 75%, or 100% after two, three, or four years of service, respectively.

The VRS Basic Benefit for Plan 1 and Plan 2 members, and the defined benefit component for HRP members, is a lifetime monthly benefit based on a retirement multiplier as a percentage of the member's average final compensation multiplied by the member's total service credit. Under Plan 1, average final compensation is the average of the member's 36 consecutive months of highest compensation. Under Plan 2 and the HRP, average final compensation is the average of the member's 60 consecutive months of highest compensation. The retirement multiplier for non-hazardous duty members in Plan 1 is 1.7%; in Plan 2 the multiplier is 1.7% for service earned, purchased or granted prior to January 1, 2013 and 1.65% after that date. The multiplier is 1% for members in the HRP. At retirement, members can elect the Basic Benefit, the Survivor Option, a Partial Lump-Sum Option Payment (PLOP) or the Advance Pension Option. A retirement reduction factor is applied to the Basic Benefit amount for members electing the Survivor Option, PLOP or Advance Pension Option or those retiring with a reduced benefit.

Retirees are eligible for an annual cost-of-living adjustment (COLA) effective July 1 of the second calendar year of retirement. Under Plan 1, the COLA cannot exceed 5%; under Plan 2 and for the HRP defined benefit component, the COLA cannot exceed 3%. During years of no inflation or deflation there is no COLA adjustment. The VRS also provides death and disability benefits.

VRS issues a publically available comprehensive annual financial report that includes financial statements and required supplementary information for VRS. A copy of that report may be downloaded from their website at <http://www.varetire.org/publications/index.asap> or obtained by writing to VRS at P.O. Box 2500, Richmond, Virginia 23218-2500.

Employees Covered by Benefit Terms

As of the June 30, 2016 and 2015 actuarial valuation dates, the following employees were covered by the benefit terms of the pension plan:

	2016	2015
Inactive Members or Their Beneficiaries Currently Receiving Benefits	355	343
Inactive Members		
Vested	105	107
Non-Vested	147	141
Active Elsewhere in VRS	76	77
Total Inactive Members	328	325
Active Members	781	752
Total	1,464	1,420

Contributions

The contribution requirement for active employees is governed by Section 51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5% of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5% member contribution may have been assumed by the employer. Beginning July 1,

2012, new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. HRSD's contractually required contribution rate for the years ended June 30, 2018 and 2017 was 7.70% of covered compensation. These rates are based on actuarially determined rates from actuarial valuations as of June 30, 2016 and 2015.

These rates, when combined with employee contributions, are expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Employer contributions to the pension plan were \$3,635,000 and \$4,326,000 for the years ended June 30, 2018 and 2017, respectively.

Net Pension Liability

HRSD's net pension liability as of June 30, 2018 and 2017 was measured as of June 30, 2017 and 2016, respectively. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2016 and 2015, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2017 and 2016.

Actuarial Assumptions

The total pension liability as of June 30, 2018 and 2017 for employees in HRSD's retirement plan was based on actuarial valuations as of June 30, 2016 and 2015, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2017 and 2016, respectively. The actuarial valuations as of June 30, 2016 and 2015 use the following assumptions:

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	7%, net of pension plan investment expenses, including inflation*
Cost of living adjustments	2.25% to 2.50%

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of pension liabilities.

The actuarial valuation as of June 30, 2016 uses the following mortality assumptions:

Mortality rates: 15% of deaths are assumed to be service related.

Pre Retirement, RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.

Post Retirement, RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post Disablement, RP-2014 Disability Mortality Rates projected with Scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial valuation as of June 30, 2015 uses the following mortality assumptions:

Mortality rates: 14% of deaths are assumed to be service related.

Pre Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 4 years and females set back 2 years.

Post Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 1 year.

Post Disablement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set back 3 years and no provision for future mortality improvement.

The actuarial assumptions used in the June 30, 2016 valuations were based on the results of an actuarial experience study for the period July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Mortality rates – Updated to a more current mortality table – RP-2014 projected to 2020.
- Retirement rates – Lowered rates at older ages and changed final retirement from 70 to 75.
- Withdrawal rates – Adjusted rates to better fit experience at each year age and service through 9 years of service.
- Disability rates – Lowered rates.
- Salary scale – No change.
- Line of duty disability – Increase rate from 14% to 15%.

The actuarial assumptions used in the June 30, 2015 valuations were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2012. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Updated mortality table.
- Decrease in rates of service retirement.
- Decrease in rates of disability retirement.
- Reduce rates of salary increase by 0.25% per year

Long-Term Expected Rate of Return

The long-term expected rate of return on pension system investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected real rates of return (expected returns, net of pension system investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The asset target allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public equity	40.00%	4.54%	1.82%
Fixed income	15.00%	0.69%	0.10%
Credit strategies	15.00%	3.96%	0.59%
Real assets	15.00%	5.76%	0.86%
Private equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
		Inflation	<u>2.50%</u>
		* Expected arithmetic nominal return	<u>7.30%</u>

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rate

The discount rate used to measure the total pension liability, as of June 30, 2017 and 2016, was 7.0%. The projection of cash flows used to determine the discount rate assumed that VRS member contributions will be made per the VRS statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2018, the rate contributed by the HRSD for the retirement plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability

(in thousands)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2015	\$ 202,246	\$ 176,129	\$ 26,117
Changes for the year - Increase (Decrease):			
Service cost	4,025	-	4,025
Interest	13,872	-	13,872
Difference between expected and actual experience	2,980	-	2,980
Contributions - employer	-	4,083	(4,083)
Contributions - employee	-	2,286	(2,286)
Net investment income	-	3,062	(3,062)
Benefit payments, including refunds of employee contributions	(8,161)	(8,161)	-
Administrative expense	-	(109)	109
Other changes	-	(1)	1
Net changes	12,716	1,160	11,556
Balances at June 30, 2016	214,962	177,289	37,673
Changes for the year - Increase (Decrease):			
Service cost	4,145	-	4,145
Interest	14,750	-	14,750
Changes of assumptions	(3,975)	-	(3,975)
Difference between expected and actual experience	(3,175)	-	(3,175)
Contributions - employer	-	3,609	(3,609)
Contributions - employee	-	2,351	(2,351)
Net investment income	-	21,526	(21,526)
Benefit payments, including refunds of employee contributions	(8,475)	(8,475)	-
Administrative expense	-	(124)	124
Other changes	-	(19)	19
Net changes	3,270	18,868	(15,598)
Balances at June 30, 2017	\$ 218,232	\$ 196,157	\$ 22,075

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

Net Pension Liability (in thousands)	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
June 30, 2017	\$ 52,017	\$ 22,075	\$ (2,722)
June 30, 2016	\$ 67,989	\$ 37,673	\$ 12,576

Pension Expenses and Deferred Outflows of Resources and Deferred Outflows of Resources Related to Pensions

HRSD recognized pension expense of \$645,000 and \$3,126,000 for the years ended June 30, 2018 and 2017, respectively. At June 30, 2018 and 2017, HRSD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(in thousands)	
Year ended June 30, 2018:		
Differences between expected and actual experience	\$ 1,827	\$ 4,519
Changes of assumptions	-	3,113
Net difference between projected and actual earnings on plan investments	-	2,827
Employer contributions subsequent to the measurement date	3,635	-
	<u>\$ 5,462</u>	<u>\$ 10,459</u>
Year ended June 30, 2017:		
Differences between expected and actual experience	\$ 2,404	\$ 2,992
Net difference between projected and actual earnings on plan investments	4,591	-
Employer contributions subsequent to the measurement date	4,326	-
	<u>\$ 11,321</u>	<u>\$ 2,992</u>

HRSD reported \$3,635,000 and \$4,326,000 as of June 30, 2018 and 2017, respectively, as deferred outflows of resources resulting from HRSD's contributions subsequent to the measurement date, which will be recognized as reductions of the Net Pension Liability in the years ended June 30, 2018 and 2017, respectively. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

	Increase (Decrease) in Pension Expense
	(in thousands)
Year ended June 30, 2018:	
2019	\$ (3,725)
2020	(1,125)
2021	(1,092)
2022	(2,690)
2023	-
Thereafter	-
Year ended June 30, 2017:	
2018	\$ (332)
2019	(332)
2020	2,268
2021	2,301
2022	98
Thereafter	-

NOTE 9 – LONG-TERM DEBT

HRSD issues revenue bonds for various capital improvements including but not limited to wastewater treatment plants and interceptor system improvements. In addition to HRSD's publicly issued revenue bonds, HRSD is indebted for bond issues payable to the Virginia Resources Authority (VRA) as administrator of the Virginia Water Facilities Fund. HRSD is required to adhere to and is in compliance with the rebate and reporting requirements of the federal regulations pertaining to arbitrage.

In fiscal year 2018, HRSD issued \$63.2 million in subordinate wastewater revenue bonds, Series 2018A, to fund capital improvement projects. The new bond provided a premium of \$11,817,000.

In fiscal year 2018, HRSD issued \$83.5 million in subordinate wastewater revenue refunding bonds, Series 2017A, to fund capital improvement projects and to refund \$86,075,000 of the HRSD Series 2012A and 2016A wastewater revenue bonds. The refunding provided a premium of \$12,009,000, resulted in a reduction of total debt service payments of \$9,642,000, created an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$6,655,000 and resulted in a deferred gain on the bond refunding of \$3,041,000, which is being amortized over 27 years.

HRSD has \$50 million outstanding in subordinate variable rate demand bonds, Series 2016B, to partially finance its capital improvement plan. The bonds bear interest in either a Weekly Period or a Long-term Period, as defined. The bonds were initially issued in a Weekly Interest Period and bear interest at a varying interest rate until, at HRSD's option, they are converted to the Long-term Period. Liquidity to pay the purchase price of the bonds that

are tendered and not remarketed is provided by HRSD. Maturities of the principal and interest for these bonds are shown in the following table as if held to maturity. The bonds are subject to optional redemption by HRSD prior to their maturity. Through June 30, 2018, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2018 and 2017 was 1.20% and 0.82%, respectively. The 2018 rate was used to calculate interest maturity amounts shown below.

All bonds are secured by the revenues of HRSD and are payable over the duration of that issue. A summary of activity for the years ended June 30:

(in thousands)	Balance at			Balance at			Balance at	Due within
	6/30/2016	Additions	Deductions	6/30/2017	Additions	Deductions	6/30/2018	One year
Series-2018A	\$ -	\$ -	\$ -	\$ -	\$ 63,185	-	\$ 63,185	\$ 470
Series-2017A	-	-	-	-	83,485	-	83,485	-
Series-2016A	246,845	-	(3,525)	243,320	-	(9,830)	233,490	2,520
Series-2016B VR	50,000	-	-	50,000	-	-	50,000	50,000
Series-2014	111,345	-	-	111,345	-	-	111,345	5,500
Series-2012 A	92,155	-	(2,480)	89,675	-	(81,225)	8,450	2,680
Series-2012 Subordinate	4,030	-	(2,825)	1,205	-	(300)	905	305
Series-2011FR	5,760	-	(1,360)	4,400	-	(1,410)	2,990	1,465
Series-2009B	131,220	-	(3,590)	127,630	-	(3,690)	123,940	3,800
Series-2008	8,465	-	(3,000)	5,465	-	(5,465)	-	-
Virginia Resources Authority								
Senior bonds	95,671	-	(5,021)	90,650	-	(5,234)	85,416	5,356
Subordinate bonds	60,588	-	(4,767)	55,821	3,465	(4,883)	54,403	5,012
	806,079	-	(26,568)	779,511	150,135	(112,037)	817,609	77,108
Unamortized bond premiums	73,215	-	(5,943)	67,272	23,826	(17,265)	73,833	6,493
Total Bonds Outstanding	\$ 879,294	\$ -	\$ (32,511)	\$ 846,783	\$ 173,961	\$ (129,302)	\$ 891,442	\$ 83,601

Senior bonds outstanding at June 30, 2018:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-Term				
Series 2014	\$ 111,345	\$ 111,345	\$ 5,500	\$ 105,845	\$ 35,840	5.00%	15 years	July 1, 2029
Series 2012A	130,480	8,450	2,680	5,770	859	4.00% - 5.00%	9 years	January 1, 2021
Series-2011FR	45,705	2,990	1,465	1,525	121	4.00%	8 years	November 1, 2019
Series-2009B	134,725	123,940	3,800	120,140	89,784	4.61% - 5.11%	30 years	November 1, 2039
VRA - Metering	9,989	7,294	477	6,817	1,376	2.65%	20 years	March 1, 2031
VRA - WTP	5,727	4,197	285	3,912	606	2.05%	20 years	March 1, 2031
VRA - NTP	19,395	14,125	923	13,202	2,665	2.65%	20 years	March 1, 2031
VRA - JRTP	13,431	9,625	659	8,966	1,745	2.65%	20 years	September 1, 2030
VRA - ABTP	50,000	39,448	2,362	37,086	6,353	2.05%	20 years	September 1, 2032
VRA - BHTP	7,584	5,610	365	5,245	840	2.05%	20 years	September 1, 2031
VRA - ATP	6,318	5,117	285	4,832	1,054	2.51%	20 years	February 1, 2033
Total		\$ 332,141	\$ 18,801	\$ 313,340	\$ 141,243			

Maturities of senior bond principal and interest as of June 30, 2018:

(in thousands)	Principal	Interest
June 30,		
2019	\$ 18,801	\$ 14,791
2020	19,520	14,011
2021	18,682	13,227
2022	17,977	12,396
2023	22,001	11,556
2024-2028	110,852	42,866
2029-2033	73,453	21,506
2034-2038	34,925	9,947
2039-2043	15,930	943
	<u>\$ 332,141</u>	<u>\$ 141,243</u>

Subordinate revenue bonds outstanding at June 30, 2018:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-term				
Series-2018A	\$ 63,185	\$ 63,185	\$ 470	\$ 62,715	\$ 59,704	5.00%	30 years	October 1, 2047
Series-2017A	83,485	83,485	-	83,485	61,838	3.50% - 5.00%	26 years	October 1, 2043
Series-2016A	246,845	233,490	2,520	230,970	156,648	3.00% - 5.00%	27 years	August 1, 2043
Series-2012 Sub	22,680	905	305	600	24	1.57% - 1.92%	8 years	October 1, 2020
Disinfection	6,490	885	435	450	39	3.50%	20 years	March 1, 2020
BH Odor	2,380	545	149	396	39	3.50%	20 years	September 1, 2021
York River Reuse	2,476	669	144	525	29	1.70%	20 years	September 1, 2022
AB Aeration	1,759	502	108	394	22	1.70%	20 years	October 1, 2022
Ches-Eliz Off Gas	1,070	334	62	272	35	3.75%	20 years	March 1, 2023
AB Generator	1,235	581	68	513	51	2.00%	20 years	April 1, 2026
Atlantic Expansion	7,340	3,856	394	3,462	396	2.10%	20 years	February 1, 2027
Ches-Eliz Expansion	40,330	21,077	2,151	18,926	2,165	2.10%	20 years	June 1, 2027
Williamsburg PS	1,605	882	85	797	95	2.10%	20 years	July 1, 2027
York River Expansion	29,683	21,608	1,406	20,202	4,190	2.72%	20 years	March 1, 2031
Atlantic	-	2,625	-	2,625	1,014	2.25%		
Ferguson	-	817	10	807	369	2.70%		
Lucas	-	22	-	22	10	2.65%		
		435,468	8,307	427,161	286,668			
Series-2016B VR	50,000	50,000	50,000	-	14,257	Variable (1.20% at June 30, 2018)	30 years	August 1, 2046
Total		<u>\$ 485,468</u>	<u>\$ 58,307</u>	<u>\$ 427,161</u>	<u>\$ 300,925</u>			

The VRA bonds that do not show an issue amount have not closed as of June 30, 2018, therefore the principal amounts reflected represent draws through that date. The total amount available on the Subordinate VRA bonds is \$62,575,000, of which \$59,111,000 is available at June 30, 2018.

Maturities of subordinate bond principal and interest as of June 30, 2018:

(in thousands)	Principal	Interest
June 30,		
2019	\$ 58,307	\$ 19,830
2020	9,090	19,131
2021	10,290	18,749
2022	11,839	18,359
2023	9,033	17,937
2024-2028	58,070	84,134
2029-2033	106,459	66,839
2034-2038	132,171	36,766
2039-2043	59,508	15,899
2044-2048	30,701	3,281
	<u>\$ 485,468</u>	<u>\$ 300,925</u>

HRSD defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the fund's financial statements. At June 30, 2018, the following defeased bonds from advance refunding are still outstanding:

Defeased In	Original Issue	Amount	Redemption
2014	Series 2011 FR	\$ 9,142,000	11/1/2019
2014	Series 2012A	14,888,000	1/1/2021
2016	Series 2011 FR	26,751,000	11/1/2019
2016	Series 2012A	18,253,000	1/1/2021
2017	Series 2012A	83,432,000	1/1/2021
2017	Series 2016A	8,956,000	8/1/2026
		<u>\$ 161,422,000</u>	

NOTE 10 – NET POSITION

Restricted Portion of Net Position

Restricted for debt service. HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service. At June 30, 2018 and 2017, \$27,799,000 and \$22,701,000, respectively, was contained in the unrestricted net position.

Unrestricted Portion of Net Position

Reserved for Improvement. HRSD's Master Trust Agreement requires a reserve for improvements. There is no specific funding mechanism established by the Trust Agreement. At June 30, 2018 and 2017, \$367,000 and \$902,000, respectively, was contained in the unrestricted net position. HRSD was in compliance with all funding requirements of this reserve during the fiscal years ended June 30, 2018 and 2017.

Reserved for Construction. A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2018 and 2017, \$8,596,000 and \$37,452,000, respectively, was contained in the unrestricted net position.

NOTE 11 - RISK MANAGEMENT

HRSD is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; employee dishonesty; injuries to employees; and natural disasters. HRSD purchases commercial insurance for specific types of coverage including property, liability, auto, crime, public officials and worker's compensation. There were no significant reductions in insurance coverage from the prior year. Claim settlements and judgments not covered by commercial insurance are covered by operating resources. The amount of settlements did not exceed insurance coverage for each of the past three years. Claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.

HRSD has a self-insured health, dental and vision care benefits program for all employees. Certain health claims expenses paid on behalf of each employee during a single policy year are covered by excess loss insurance with a specific stop-loss limit of \$250,000. HRSD also maintains an aggregate insurance policy whereby total medical claims costs in excess of 125 percent of expected costs are subject to reimbursement. Claims processing and payments for all health care claims are made through third-party administrators. HRSD uses the information provided by the third-party administrators and a health care benefits consultant to aid in the determination of self-insurance reserves.

Changes in HRSD's claims liability for fiscal years 2017 through 2018 are as follows:

(in thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2017	\$ 3,996	\$ 9,704	\$ (10,345)	\$ 3,355
2018	\$ 3,355	\$ 13,332	\$ (12,471)	\$ 4,216

NOTE 12 – COMMITMENTS AND CONTINGENCIES

HRSD is party to a federal consent decree with the federal and state governments (the Consent Decree), which requires HRSD to evaluate the wet weather capacity of the regional sewer system, including collection systems owned by 14 of the localities which HRSD serves in the Hampton Roads area. Based upon that evaluation, HRSD, in consultation with the localities, has developed a Regional Wet Weather Management Plan (RWWMP) for submittal to the federal and state environmental agencies for their approval. The recommended plan includes an implementation schedule, identifies the attainable level of wet weather capacity in individual areas of the region and/or on a region-wide basis, and summarizes the major projects and programs that must be implemented in order to achieve the specified level of regional wet weather capacity.

HRSD and the localities believe that addressing wet weather capacity issues from a regional perspective will result in the most affordable and cost-effective approach for ratepayers throughout the region. Toward that end, HRSD and the localities entered into a legally binding Memorandum of Agreement in March of 2014 (the MOA). The MOA commits HRSD to (1) develop the RWWMP in consultation with the localities, (2) fund the approved plan through a regional rate imposed on all regional ratepayers, (3) design and construct the necessary improvements, and (4) assume responsibility for wet weather capacity throughout the region in each area once the RWWMP is implemented. In exchange, the localities have agreed to (1) cooperate with HRSD, (2) facilitate the construction of and accept ownership of any improvements which HRSD may need to construct in the localities' systems, and (3) maintain the integrity of their systems to industry standards. This agreement is currently under revision. The revision will have HRSD taking responsibility for Regional Sanitary Sewer Overflows upon the approval of the Consent Decree from U.S. EPA/DEQ.

HRSD has also developed an Integrated Management Plan (IMP) and Adaptive Regional Plan (ARP) which was submitted in September 2017. The IMP and ARP include a combination of projects that will improve water quality of the Chesapeake Bay. The first project will be the Sustainable Water Initiative for Tomorrow (SWIFT), which will allow HRSD to reduce nitrogen, phosphorus and total suspended solids to the Chesapeake Bay watershed. This program is estimated to cost \$1 billion and may take approximately 10 years to implement. During this time HRSD will be investing approximately \$200 million in additional wet weather capacity-related sewer overflow controls between now and 2030. Beginning in 2028-2030 HRSD will perform flow monitoring per the ARP and modify the RWWMP as needed. After 2030, the ARP commits HRSD to submit a Final Remediation Plan which may call for full implementation of the RWWMP, a subset of priority projects from the scenario with the greatest environmental benefits, investments in emerging environmental issues including sea level rise adaptation, or some combination of these or other regional environmental priorities. While speculative at this time, those needs could cost upwards of \$1 billion over a 20-25 year period (through 2055). HRSD has submitted the IMP and ARP to the federal and state governments for approval.

During FY-2018 HRSD paid \$15 million for a non-revocable option to purchase a parcel of land to construct one of the SWIFT facilities. The option must be exercised no earlier than January 1, 2023 and no later than December 31, 2023. An additional payment of \$15 million, adjusted from the date of the agreement to the date of settlement by the Consumer Price Index for All Urban Consumers, will be due at that time. Failure to exercise the option will result in forfeiture of the option fee.

The Consent Decree and MOA also contemplate that the localities' obligation to maintain the integrity of their sewer systems to industry standards was embodied in a State Administrative Order. Management currently believes that HRSD is on schedule to complete these projects.

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. At June 30, 2018, HRSD has outstanding commitments for contracts in progress of approximately \$106,230,000.

NOTE 13 – FAIR VALUE MEASUREMENTS

HRSD categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs.

Debt securities reported as investments are classified in Level 2 of the fair value hierarchy and are valued using the following approaches:

- U.S. Treasury securities are valued using quoted prices for identical or similar securities.

- All other investments are valued based on matrix pricing using observable data of securities with similar attributes.

Investments reported as cash and cash equivalents are not included of the fair value hierarchy and are valued using the following approaches:

- SNAP Fund – money market mutual funds. HRSD’s holdings of the PFM Prime Series (SNAP) fund units are valued at NAV, which is used as a practical expedient for fair value. There are no imposed redemption restrictions and the plan does not have any contractual obligations to further invest in the fund. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value.
- Local Government Investment Pool (LGIP) – HRSD holdings of the Virginia LGIP fund units are valued at amortized cost based on their qualification under GASB 79 as being managed as a “2a-7 like” investment. The fund does not have any limitations or restrictions on withdrawals such as redemption notice periods, maximum transaction amounts, or liquidity fees or redemption gates. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value. HRSD’s total investment in the LGIP was \$68,984,000 and \$92,714,000 as of June 30, 2018 and 2017, respectively.

Balance at June 30, 2018 (in thousands)

	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<u>Investments by Fair Value Level</u>				
U.S. Treasury Securities	\$ 53,627	\$ -	\$ 53,627	\$ -
Federal Agency Notes / Bonds	26,918	-	26,918	-
Corporate Notes / Bonds	20,633	-	20,633	-
Commercial Paper	4,921	-	4,921	-
Certificates of Deposit	7,325	-	7,325	-
Municipal Bonds	1,451	-	1,451	-
Supranationals	9,215	-	9,215	-
Total Investments by Fair Value Level	<u>\$ 124,090</u>	<u>\$ -</u>	<u>\$ 124,090</u>	<u>\$ -</u>

Cash Equivalents Measured at Net Asset Value

Fidelity	\$ 139
SNAP	67,278
	<u>\$ 67,417</u>

Balance at June 30, 2017 (in thousands)

	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<u>Investments by Fair Value Level</u>				
U.S. Treasury Securities	\$ 38,809	\$ -	\$ 38,809	\$ -
Federal Agency Notes / Bonds	33,688	-	33,688	-
Corporate Notes / Bonds	24,913	-	24,913	-
Commercial Paper	2,424	-	2,424	-
Certificates of Deposit	12,110	-	12,110	-
Municipal Bonds	2,166	-	2,166	-
Supranationals	9,577	-	9,577	-
Total Investments by Fair Value Level	<u>\$ 123,687</u>	<u>\$ -</u>	<u>\$ 123,687</u>	<u>\$ -</u>

Cash Equivalents Measured at Net Asset Value

Fidelity	<u>\$ 157</u>
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HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, USBank. HRSD categorizes its fair value measurements within the fair value hierarchy consistent with the approach described above.

<u>Balance at June 30, 2018 (in thousands)</u>	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<u>Investments by Fair Value Level</u>				
Mutual Funds - Equity	\$ 29,847	\$ 1,939	\$ 27,908	\$ -
Mutual Funds - Fixed Income	17,227	-	17,227	-
Total Investments by Fair Value Level	\$ 47,074	\$ 1,939	\$ 45,135	\$ -
<u>Cash Equivalents Measured at Net Asset Value</u>				
First American Government Obligation	\$ 29			
<u>Fiduciary Net Position of HRSD's OPEB</u>				
Plan as of June 30, 2018	\$ 47,103			

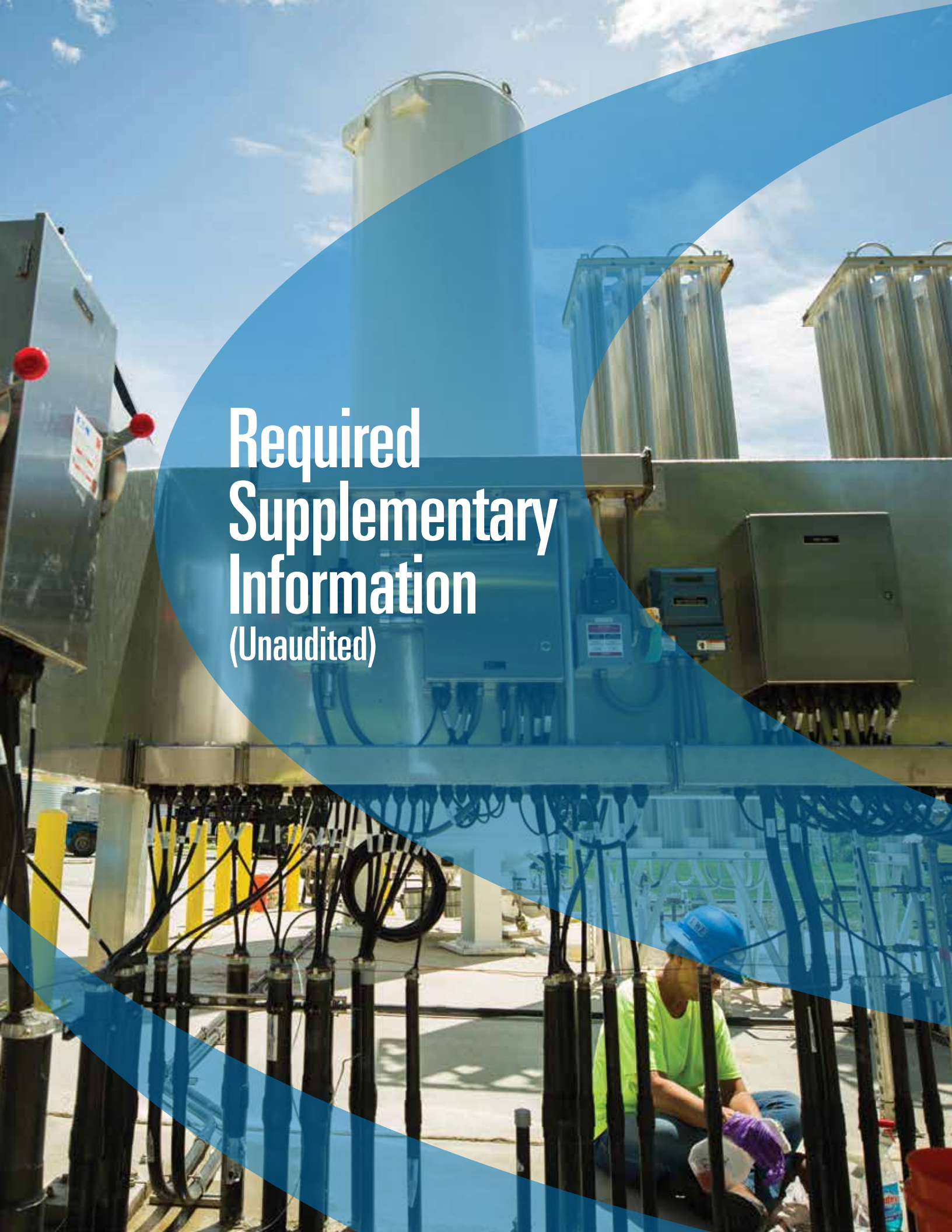
Additional information about HRSD's OPEB Plan is in Note 7.

Note 14 - Change in Accounting Principle

As discussed in Note 2, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective July 1, 2017. HRSD implemented the provisions of GASB No. 75 in fiscal year 2018 by adjusting the July 1, 2017 net position, establishing an other postemployment benefits (OPEB) liability, recording deferred inflows and outflows of resources related to OPEB activity, and adjusting OPEB expenses in the accompanying financial statements. The following reflects the adjustment to net position as of July 1, 2017 as a result of implementing GASB Statement No. 75 in FY18:

(in thousands)	
Adjustment for net OPEB liability	\$ (20,520)
Adjustment for contributions made subsequent to the measurement date	336
Adjustment to net position at July 1, 2017	<u>\$ (20,184)</u>

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A photograph of an electrical substation. In the foreground, a worker wearing a blue hard hat and a bright green safety vest is kneeling on the ground, working with equipment. The background features several large, cylindrical metal tanks and a tall, white cylindrical structure. The sky is blue with some clouds. A large, semi-transparent blue circle is overlaid on the right side of the image, containing the text.

Required Supplementary Information (Unaudited)

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET PENSION LIABILITY AND RELATED RATIOS**

	(in thousands)	2017	2016	2015	2014
Total pension liability					
Service cost		\$ 4,145	\$ 4,025	\$ 4,115	\$ 3,943
Interest		14,750	13,872	13,559	12,907
Changes of benefit terms		-	-	-	-
Changes in assumptions		(3,975)	-	-	-
Differences between expected and actual experience		(3,175)	2,980	(4,910)	-
Benefit payments, including refunds of employee contributions		(8,475)	(8,161)	(8,446)	(6,607)
Net change in total pension liability		3,270	12,716	4,318	10,243
Total pension liability - beginning		214,962	202,246	197,928	187,686
Total pension liability - ending (a)		<u>\$ 218,232</u>	<u>\$ 214,962</u>	<u>\$ 202,246</u>	<u>\$ 197,929</u>
Plan fiduciary net position					
Contributions - employer		\$ 3,609	\$ 4,083	\$ 4,099	\$ 4,114
Contributions - employee		2,351	2,286	2,314	2,267
Net investment income		21,526	3,062	7,807	23,313
Benefit payments, including refunds of employee contributions		(8,475)	(8,161)	(8,446)	(6,607)
Administrative expense		(124)	(109)	(107)	(125)
Other		(19)	(1)	(2)	1
Net change in plan fiduciary net position		18,868	1,160	5,665	22,963
Plan fiduciary net position - beginning		177,289	176,129	170,464	147,501
Plan fiduciary net position - ending (b)		<u>\$ 196,157</u>	<u>\$ 177,289</u>	<u>\$ 176,129</u>	<u>\$ 170,464</u>
Net pension liability - ending (a) - (b)		\$ 22,075	\$ 37,673	\$ 26,117	\$ 27,465
Plan fiduciary net position as a percentage of the total pension liability (b)/(a)		89.88%	82.47%	87.09%	86.12%
Covered-employee payroll (c)		\$ 50,874	\$ 49,286	\$ 47,838	\$ 47,674
Net pension liability as a percentage of the covered-employee payroll ((a)-(b))/(c)		43.39%	76.44%	54.59%	57.61%

This schedule is presented to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER PENSION CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2009 THROUGH 2018**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2018	\$ 3,635,000	\$ 3,635,000	\$ -	\$ 50,874,000	7.15%
2017	4,326,000	4,326,000	-	49,286,000	8.78%
2016	4,222,000	4,222,000	-	47,838,000	8.83%
2015	4,207,000	4,207,000	-	47,674,000	8.82%
2014	4,107,000	4,107,000	-	46,096,000	8.91%
2013	4,075,000	4,075,000	-	45,044,000	9.05%
2012	4,580,000	4,580,000	-	42,166,000	10.86%
2011	4,438,000	4,438,000	-	40,462,000	10.97%
2010	3,900,000	3,900,000	-	39,407,000	9.90%
2009	3,699,000	3,699,000	-	37,608,000	9.84%

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this is a fairly new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2017 are not material.

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75 retirement
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increase rate from 14% to 15%

Information pertaining to Pensions can be found in Notes 2 and 8 to the financial statements.

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET RHP OPEB LIABILITY AND RELATED RATIOS**

	(in thousands)	2018
Total OPEB liability		
Service cost		\$ 1,260
Interest		3,391
Benefit payments, including refunds of employee contributions		(1,791)
Net change in total OPEB liability		2,860
Total OPEB liability - beginning		57,416
Total OPEB liability - ending (a)		\$ 60,276
 Plan fiduciary net position		
Contributions - employer		\$ 2,729
Contributions - retirees		303
Net investment income		3,450
Benefit payments, including refunds of employee contributions		(1,791)
Administrative expense		(114)
Net change in plan fiduciary net position		4,577
Plan fiduciary net position - beginning		42,526
Plan fiduciary net position - ending (b)		\$ 47,103
 Net OPEB liability - ending (a) - (b)		\$ 13,173
 Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)		78.15%
 Covered-employee payroll (c)		\$ 50,874
 Net OPEB liability as a percentage of the covered-employee payroll ((a)-(b))/(c)		25.89%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available. Information for FY2016 and earlier is not available.

Notes to Required Supplementary Information For the Year Ended June 30, 2018:

Benefit changes:	None	
Changes of assumptions:	None	
Discount rate:	6/30/2017	6.00%

Unaudited – See accompanying independent auditors’ report and notes to required supplementary information

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF RHP OPEB CONTRIBUTIONS AND RELATED RATIOS**

	(in thousands) <u>2018</u>
Actuarially Determined Contribution	\$ 2,729
Contributions in Relation to the Actuarially Determined Contribution	<u>(2,729)</u>
Contribution Deficiency (Excess)	<u>\$ -</u>
Covered-employee payroll (c)	\$ 50,874
 Contributions as a percentage of Covered-employee payroll	 5.36%

Actuarial cost method	Projected unit credit method
Amortization method	Level percent of pay, closed
Amortization period	An experience gain/loss base is created each year and amortized over a 15 year period
Asset valuation	Smoothed market value with phase-in, using a 5-year smoothing period
Assumed rate of inflation	2.20%
Medical cost trend :	
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years
Post Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.4% after 53 years
Salary increase rate	2.50%
Investments rate of return	6.00%
Mortality rates:	
Healthy	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014
Disabled	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014

Unaudited – See accompanying independent auditors’ report and notes to required supplementary information

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF RHP FUNDING PROGRESS
FOR THE YEARS ENDED JUNE 30, 2014 THROUGH 2017**

The table below provides detail on the funding progress for the Post-Retirement Health Benefit Plan for HRSD.

Valuation as of	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (2) - (1)	Funded Ratio Assets as % of AAL (1) / (2)	Annual Covered Payroll	UAAL as a % of Covered Payroll (3) / (5)
(in thousands)	(1)	(2)	(3)	(4)	(5)	(6)
6/30/2017	\$42,468	\$49,303	\$6,835	86.1%	\$49,286	13.9%
6/30/2016	\$39,272	\$45,337	\$6,065	86.6%	\$47,838	12.7%
6/30/2015	\$37,008	\$42,017	\$5,009	88.1%	\$47,674	10.5%
6/30/2014	\$34,115	\$39,422	\$5,307	86.5%	\$46,096	11.5%

Other disclosures related to OPEB for the fiscal year ended June 30, 2017

As described in Note 2, during the fiscal year ended June 30, 2018, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Information related to OPEB for the fiscal year ended June 30, 2017 was not restated, so the following information presents information required by GASB Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended; and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*.

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER'S SHARE OF
NET GLI OPEB LIABILITY AND RELATED RATIOS
FOR THE YEAR ENDED JUNE 30, 2018***

Employer's Proportion of the Net GLI OPEB Liability (Asset)	0.26016%
Employer's Proportionate Share of the Net GLI OPEB Liability (Asset)	\$ 3,915,000
Employer's Covered Payroll	47,987,000
Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage [Calculation: Line 2 of its Covered Payroll]	8.16%
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	48.86%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

* The amounts presented have a measurement date of the previous fiscal year end.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER GROUP LIFE INSURANCE CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2009 THROUGH 2018**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2018	\$ 259,000	\$ 259,000	\$ -	\$ 49,846,000	0.52%
2017	250,000	250,000	-	47,987,000	0.52%
2016	246,000	223,000	23,000	46,417,000	0.53%
2015	244,000	221,000	23,000	46,082,000	0.53%
2014	240,000	217,000	23,000	45,283,000	0.53%
2013	238,000	215,000	23,000	44,839,000	0.53%
2012	183,000	117,000	66,000	41,681,000	0.44%
2011	177,000	113,000	64,000	40,252,000	0.44%
2010	139,000	78,000	61,000	28,890,000	0.48%
2009	132,000	99,000	33,000	36,731,000	0.36%

Notes to Required Supplementary Information For the Year Ended June 30, 2018:

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions

Changes of assumptions - The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET HIC OPEB LIABILITY AND RELATED RATIOS**

	(in thousands) <u>2017</u>
Total OPEB liability	
Service cost	\$ 27
Interest	129
Changes in assumptions	(22)
Benefit payments, including refunds of employee contributions	<u>(94)</u>
Net change in total OPEB liability	40
Total OPEB liability - beginning	1,891
Total OPEB liability - ending (a)	<u><u>\$ 1,931</u></u>
Plan fiduciary net position	
Contributions - employer	\$ 91
Net investment income	90
Benefit payments, including refunds of employee contributions	(94)
Administrative expense	(1)
Other	<u>4</u>
Net change in plan fiduciary net position	90
Plan fiduciary net position - beginning	780
Plan fiduciary net position - ending (b)	<u><u>\$ 870</u></u>
Net OPEB liability - ending (a) - (b)	\$ 1,061
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	45.05%
Covered-employee payroll (c)	\$47,987
Net OPEB liability as a percentage of the covered-employee payroll ((a)-(b))/(c)	2.21%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

Unaudited – See accompanying independent auditors’ report and notes to required supplementary information

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER HEALTH INSURANCE CREDIT CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2009 THROUGH 2018**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2018	\$ 95,000	\$ 95,000	\$ -	\$ 49,821,000	0.19%
2017	91,000	91,000	-	47,987,000	0.19%
2016	74,000	74,000	-	46,417,000	0.16%
2015	74,000	74,000	-	46,076,000	0.16%
2014	86,000	86,000	-	45,283,000	0.19%
2013	85,000	85,000	-	44,835,000	0.19%
2012	100,000	100,000	-	41,634,000	0.24%
2011	97,000	97,000	-	40,282,000	0.24%
2010	147,000	147,000	-	38,675,000	0.38%
2009	139,000	139,000	-	36,640,000	0.38%

Notes to Required Supplementary Information For the Year Ended June 30, 2018:

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation.

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

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A photograph of a water treatment facility. In the foreground, there are two large, white, cylindrical vertical pumps or filters mounted on concrete bases. They are connected to a network of blue and purple pipes. In the background, there is a large, modern industrial building with a grey facade and large windows. The sky is blue with some white clouds. A large, semi-transparent blue circle is overlaid on the right side of the image, containing the text.

Statistical Section (Unaudited)

HAMPTON ROADS SANITATION DISTRICT STATISTICAL SECTION (UNAUDITED)

This section of HRSD's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures and required supplementary information says about HRSD's overall financial health.

Contents	Page(s)
Demographic and Economic Information This schedule offers demographic and economic indicators to help the reader understand the environment within which HRSD's financial activities take place and to help make comparisons over time and with other governments.	63
Financial Trends These schedules contain trend information to help the reader understand how HRSD's financial performance and well-being have changed over time.	64-66
Debt Capacity This schedule presents information to help the reader assess the affordability of HRSD's current levels of outstanding debt and HRSD's ability to issue additional debt in the future.	67
Revenue Capacity These schedules contain information to help the reader assess the factors affecting HRSD's ability to generate revenue from rate payers.	68-69 72-74
Operating Information These schedules contain information about the HRSD's operations and resources to help the reader understand how the HRSD's financial information relates to the services HRSD provides and the activities it performs.	70-71 75

Sources: Unless otherwise noted the information in these schedules is derived from the comprehensive annual financial reports and accounting records for the relevant year.

Unaudited – See accompanying independent auditors' report

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**HAMPTON ROADS SANITATION DISTRICT
DEMOGRAPHIC AND OTHER MISCELLANEOUS STATISTICS
JUNE 30, 2018**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Date of Incorporation - 1940										
Area in Square Miles (1)	3,087	3,087	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808
Present Service Area in Square Miles (1)	758	758	672	672	672	672	672	672	672	672
Treatment Plants (Major)	9	9	9	9	9	9	9	9	9	9
Plant Capacity (Millions of Gallons per Day)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Army Base Plant, Norfolk	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
Atlantic Plant, Virginia Beach	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Boat Harbor Plant, Newport News	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Chesapeake-Elizabeth Plant, Virginia Beach	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
James River Plant, Newport News	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Nansemond Plant, Suffolk	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Virginia Initiative Plant, Norfolk	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Williamsburg Plant, James City County	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
York River Plant, York County	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
Total Treatment Plants (Major) Capacity	7	5	4	4	4	4	5	5	4	4
Small Communities Treatment Plants	0.025	0.025	0.025	0.025	0.025	0.025	0.030	0.030	-	-
Central Middlesex, Middlesex County	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
King William Plant, King William County	0.050	0.050	-	-	-	-	-	-	-	-
Lawnes Point, Isle of Wight County (2)	-	-	-	-	-	-	-	-	-	-
Mathews Plant, Mathews County (3)	0.065	-	-	-	-	-	-	-	-	-
Surry County (4)	0.060	-	-	-	-	-	-	-	-	-
Town of Surry (4)	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Urbanna Plant, Middlesex County	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
West Point Plant, King William County	1	0.875	0.825	0.825	0.83	0.83	0.93	0.93	0.90	0.90
Total Small Communities Treatment Plants Capacity	542	540	536	532	531	531	532	528	483	483
Miles of Interceptor Systems (5)	88	89	88	83	83	83	83	82	81	82
Interceptor Pump Stations	34	38	33	33	33	29	29	29	25	20
Small Communities Pump Stations (5)	2	2	2	2	2	2	2	2	2	2
Maintenance Facilities	473	470	467	465	462	460	458	457	455	452
Number of Service Connections (in thousands)	145	153	155	152	154	158	147	144	171	151
Daily Average Treatment in Millions of Gallons										
Bond Ratings										
Moody's Investors Service	Aa1	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa3
Senior	Aa2	-	-	-	-	-	-	-	-	-
Subordinate Long-term	AA+	AA+	AA+	AA+	AAA	AAA	AAA	AAA	AAA	AA+
Standard & Poor's	AA	AA	AA	AA	AA+	AA+	AA+	-	-	-
Subordinate Long-term	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	-	-	-
Subordinate Short-term	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA
Fitch	AA	AA	AA	AA	AA	AA	AA	AA	AA	-
Subordinate Long-term	F1+	F1+	F1+	F1+	F1+	F1+	F1+	-	-	-
Subordinate Short-term										

(1) HRSD added additional service areas in the counties of Isle of Wight and Surry
(2) Lawnes Point was acquired during the year ended June 30, 2017.
(3) The Mathews Treatment Plant has been closed. Wastewater from the area is now handled by the York River Treatment Plant.
(4) The Surry Plants were acquired during the year ended June 30, 2018.
(5) HRSD conducted evaluations of the system during the years ended June 30, 2009 and 2011 and revised the miles of pipes and the number of small community pump stations.

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF OPERATING EXPENSES, NET POSITION BY COMPONENT
AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS

(in thousands)

	2018	2017	2016	2015	(adjusted) 2014
OPERATING REVENUES					
Wastewater treatment charges	\$ 275,539	\$ 254,961	\$ 234,020	\$ 221,626	\$ 211,538
Miscellaneous	3,504	3,669	3,861	3,935	3,643
TOTAL OPERATING REVENUES	279,043	258,630	237,881	225,561	215,181
OPERATING EXPENSES					
Wastewater treatment	116,982	113,100	106,575	114,137	109,149
General and administrative	40,480	40,287	40,026	38,678	33,012
Depreciation	52,349	49,311	45,670	41,871	42,761
TOTAL OPERATING EXPENSES	209,811	202,698	192,271	194,686	184,922
OPERATING INCOME	69,232	55,932	45,610	30,875	30,259
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	6,673	7,511	6,699	7,428	6,640
Investment income	3,654	2,287	1,563	1,695	1,872
Bond interest subsidy	2,330	2,275	2,399	2,444	2,364
Change in fair value of investments	(1,382)	(1,119)	750	(286)	(422)
Capital distributions to localities	(311)	(138)	(3,287)	-	-
Bond issuance costs	(1,061)	(42)	(1,713)	(768)	-
Disposal of capital assets	-	-	-	-	-
Interest expense	(20,226)	(22,630)	(21,631)	(22,958)	(25,650)
NET NON-OPERATING REVENUES (EXPENSES)	(10,323)	(11,856)	(15,220)	(12,445)	(15,196)
INCOME (LOSS) BEFORE CONTRIBUTIONS	58,909	44,076	30,390	18,430	15,063
CAPITAL CONTRIBUTIONS					
State capital grants	2,502	7,462	14,389	16,519	13,888
Other capital contributions	2,124	1,136	-	3,000	-
CHANGE IN NET POSITION	\$ 63,535	\$ 52,674	\$ 44,779	\$ 37,949	\$ 28,951
NET POSITION					
Net Investment in capital assets	\$ 512,398	\$ 428,670	\$ 410,287	\$ 385,597	\$ 351,191
Restricted for debt service	27,799	22,701	23,798	22,070	24,064
Restricted for debt service reserve fund	-	-	-	44,118	45,207
Unrestricted	157,432	202,907	167,519	105,040	134,485
TOTAL NET POSITION	\$ 697,629	\$ 654,278	\$ 601,604	\$ 556,825	\$ 554,947
DEBT SERVICE EXPENDITURES					
Senior debt	\$ 36,488	\$ 35,837	\$ 38,198	\$ 43,842	\$ 47,331
Subordinate debt	20,633	23,603	17,068	13,091	14,112
Senior Debt Service Coverage (GAAP)	3.59	3.10	2.56	1.90	1.76
Subordinate Debt Service Coverage (GAAP)	6.36	5.09	5.72	6.36	5.92
Total Debt Service Coverage (GAAP)	2.03	1.93	1.77	1.46	1.36
Total Debt (Adjusted Cash Basis)	\$ 57,171	\$ 57,988	\$ 54,643	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	2.30	2.00	1.85	-	-

Notes:

FY2013 - HRSD implemented GASB Statement 65 effective July 1, 2012, which requires expensing bond issuance costs in the year incurred.

FY2013 - HRSD adjusted the financial records to include inventory assets.

FY2014 - HRSD implemented GASB Statements 68 and 71 effective July 1, 2014, which requires recording net pension assets or liabilities and related deferred outflows and inflows of resources.

FY2016 - HRSD is showing Debt Service Coverage on both a GAAP basis and an Adjusted Cash basis to account for distributions to localities in accordance with its Amended Subordinate Trust Agreement Section 705(a) enacted in March 2016.

FY2018 - HRSD implemented GASB Statement 75 effective July 1, 2017, which requires recording net OPEB assets or liabilities and related deferred outflows and inflows of resources.

(Continued)

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF OPERATING EXPENSES, NET POSITION BY COMPONENT
AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS

(in thousands)	(adjusted) 2013	(adjusted) 2012	2011	2010	2009
OPERATING REVENUES					
Wastewater treatment charges	\$ 199,318	\$ 194,817	\$ 183,526	\$ 167,807	\$ 156,642
Miscellaneous	3,297	2,996	3,890	3,645	3,088
TOTAL OPERATING REVENUES	202,615	197,813	187,416	171,452	159,730
OPERATING EXPENSES					
Wastewater treatment	86,973	110,783	103,225	98,022	86,850
General and administrative	31,410	31,163	28,622	29,435	28,853
Depreciation	45,414	41,250	36,191	30,441	28,414
TOTAL OPERATING EXPENSES	163,797	183,196	168,038	157,898	144,117
OPERATING INCOME	38,818	14,617	19,378	13,554	15,613
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	5,851	6,276	5,083	5,754	5,086
Investment income	1,705	1,681	1,699	1,541	3,998
Bond interest subsidy	2,602	2,602	2,602	1,655	-
Change in fair value of investments	(714)	(224)	(19)	40	162
Capital distributions to localities	-	-	-	-	-
Bond issuance costs	(658)	(2,206)	-	-	-
Disposal of capital assets	(1,649)	-	-	-	-
Interest expense	(24,330)	(22,760)	(20,516)	(19,973)	(15,263)
NET NON-OPERATING REVENUES (EXPENSES)	(17,193)	(14,631)	(11,151)	(10,983)	(6,017)
INCOME (LOSS) BEFORE CONTRIBUTIONS	21,625	(14)	8,227	2,571	9,596
CAPITAL CONTRIBUTIONS					
State capital grants	10,172	14,806	16,097	41,606	16,678
Other capital contributions	-	-	-	-	-
CHANGE IN NET POSITION	\$ 31,797	\$ 14,792	\$ 24,324	\$ 44,177	\$ 26,274
NET POSITION					
Net Investment in capital assets	\$ 337,342	\$ 348,407	\$ 351,618	\$ 348,572	\$ 319,594
Restricted for debt service	23,843	15,736	14,896	12,253	7,542
Restricted for debt service reserve fund	-	-	-	-	-
Unrestricted	164,811	130,056	110,688	92,053	81,565
TOTAL NET POSITION	\$ 525,996	\$ 494,199	\$ 477,202	\$ 452,878	\$ 408,701
DEBT SERVICE EXPENDITURES					
Senior debt	\$ 37,574	\$ 33,023	\$ 28,257	\$ 21,081	\$ 17,453
Subordinate debt	\$ 11,243	\$ 13,694	\$ 10,640	\$ 10,695	\$ 10,694
Senior Debt Service Coverage (GAAP)	2.48	1.94	2.30	2.51	3.05
Subordinate Debt Service Coverage (GAAP)	8.27	4.67	6.10	4.95	4.98
Total Debt Service Coverage (GAAP)	1.91	1.37	1.67	1.67	1.89
Total Debt (Adjusted Cash Basis)	-	-	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	-	-	-	-	-

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - LAST TEN FISCAL YEARS**

(in thousands)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Personal Services	\$ 55,160	\$ 53,401	\$ 51,801	\$ 52,357	\$ 50,538	\$ 49,361	\$ 47,319	\$ 44,284	\$ 42,529	\$ 40,840
Fringe Benefits	20,275	19,106	17,974	18,249	20,170	20,039	17,800	17,692	15,217	12,410
Repairs and Maintenance (1)	16,763	19,933	22,824	31,451	22,320	23,075	26,057	21,234	23,445	14,176
Materials and Supplies	8,865	8,310	7,843	4,343	5,764	5,700	6,143	8,381	6,284	5,715
Transportation	1,271	1,386	1,537	1,297	1,417	1,376	1,319	1,196	1,009	972
Utilities	11,968	11,523	11,249	10,503	11,126	12,295	12,027	11,026	10,755	13,218
Chemicals	8,750	8,020	7,512	7,119	7,752	7,892	8,587	8,084	7,571	8,342
Contractual Services	30,165	26,977	21,573	15,127	14,222	13,993	12,312	11,118	10,333	8,642
Miscellaneous	2,509	2,329	1,842	2,880	1,274	1,172	1,324	1,148	1,049	1,028
General (2)	1,736	2,402	2,446	9,489	7,578	6,487	6,852	7,684	9,265	10,360
Subtotal, Expense before Depreciation	157,462	153,387	146,601	152,815	142,161	141,390	139,740	131,847	127,457	115,703
Depreciation	52,349	49,311	45,670	41,871	42,761	45,414	41,250	36,191	30,441	28,414
Total Operating Expenses	\$ 209,811	\$ 202,698	\$ 192,271	\$ 194,686	\$ 184,922	\$ 186,804	\$ 180,990	\$ 168,038	\$ 157,898	\$ 144,117

- (1) Excludes capital distributions to localities
- (2) Includes bad debt expense

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
RATIOS OF OUTSTANDING DEBT BY TYPE
JUNE 30, 2018**

As of June 30,	No. Of Service Connections	(in thousands)			Debt Per Service Connection
		Senior Revenue Bonds	Subordinate Revenue Bonds	Total Outstanding Debt	
2018	473,000	\$ 349,313	\$ 542,129	\$ 891,442	\$ 1,885
2017	470,000	458,255	388,529	846,784	1,802
2016	467,000	476,734	402,560	879,294	1,883
2015	465,000	649,202	99,195	748,397	1,609
2014	462,000	656,503	109,850	766,353	1,659
2013	460,000	670,272	120,231	790,503	1,718
2012	458,000	510,951	128,335	639,286	1,396
2011	457,000	450,335	110,661	560,996	1,228
2010	455,000	395,215	152,103	547,318	1,203
2009	452,000	250,165	109,971	360,136	797

Note: Unamortized bond premiums are included in both senior and subordinate revenue bonds.

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
RATE SCHEDULE
WASTEWATER TREATMENT CHARGES
LAST TEN FISCAL YEARS**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<u>Residential - Metered</u>										
Per CCF* (single step)	\$ 4.92	\$ 4.51	\$ 4.13	\$ 3.83	\$ 3.55	\$ 3.29	\$ 3.05	\$ 2.82	\$ 2.52	-
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	\$ 2.28
In excess of 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	2.06
Minimum Charges										
Per day	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	-	-	6.50
<u>Residential - Unmetered per 30-day period</u>										
Fiat rate accounts	31.98	29.32	26.32	26.32	26.32	26.32	24.40	22.56	20.16	-
First toilet	-	-	-	-	-	-	-	-	-	10.25
Second toilet	-	-	-	-	-	-	-	-	-	6.83
Additional, each	-	-	-	-	-	-	-	-	-	3.42
<u>Non-Residential - Special Category</u>										
Biochemical Oxygen Demand (BOD)										
Excess over 282 mg/liter	0.000091	0.000206	0.000485	0.000612	0.001558	0.002451	46.77	39.71	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	36.70	34.73	30.25	28.54
Total Suspended Solids (TSS)										
Excess over 261 mg/liter	0.000520	0.000454	0.000448	0.000417	0.001244	0.001865	-	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	300.57	300.57	293.41	283.10
Total Phosphorus (TP)										
Excess over 6 mg/liter	0.011569	0.011642	0.004361	0.004344	0.011714	0.012790	-	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	74.51	63.39	61.88	59.73
Total Kjeldahl Nitrogen (TKN)										
Excess over 47 mg/liter	0.003156	0.001660	0.000917	0.000756	0.001752	0.002085	-	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	48.57	44.46	38.51	35.84
Unusual wastes not covered by this schedule may be assigned a special rate.										
<u>Septic Tank Waste</u>										
Per gallon	0.1300	0.1366	0.1362	0.1267	0.1258	0.1146	-	-	-	-
Per each 500 gallons or part thereof	-	-	-	-	-	-	48.57	44.46	38.51	35.84

*CCF = 100 Cubic Feet (Approx. 748 gallons)

Note: Rates can be adjusted by the Commission.

**HAMPTON ROADS SANITATION DISTRICT
RATE SCHEDULE
WASTEWATER FACILITY CHARGES
LAST TEN FISCAL YEARS**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655
Residential										
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655
3/4" Meter	4,830	4,830	4,830	4,830	4,830	4,510	2,885	2,605	2,605	2,515
1" Meter	8,170	8,170	8,170	8,170	8,170	7,630	5,370	4,850	4,850	4,685
1 1/2" Meter	17,260	17,260	17,260	17,260	17,260	16,130	13,035	11,780	11,780	11,365
2" Meter	30,510	30,510	29,420	29,420	29,420	27,490	24,420	22,065	22,065	21,290
3" Meter	70,800	70,800	67,350	63,600	62,270	58,180	59,140	53,440	53,440	51,565
4" Meter	128,660	128,660	122,400	115,580	106,060	99,110	110,860	100,175	100,175	96,660
6" Meter	298,610	298,610	284,070	268,250	224,650	209,920	268,675	242,780	242,780	234,260
8" Meter	542,680	542,680	516,260	487,510	382,670	357,580	503,350	454,835	454,835	438,875
10" Meter	862,550	862,550	820,560	774,860	587,820	540,610	819,310	740,340	740,340	714,355
12" Meter	1,259,520	1,259,520	1,198,210	1,131,490	-	-	-	-	-	-
14" Meter	1,734,700	1,734,700	1,650,250	1,558,360	-	-	-	-	-	-
16" Meter	2,289,010	2,289,010	2,177,580	2,056,330	-	-	-	-	-	-
Strength based facility charges: (per permitted pound)										
Biochemical Oxygen Demand (BOD) Excess over 250 mg/liter	-	-	-	\$ 728	\$ 987	\$ 928	-	-	-	-
Total Suspended Solids (TSS) Excess over 250 mg/liter	-	-	-	424	624	587	-	-	-	-
Total Phosphorus (TP) Excess over 6 mg/liter	-	-	-	8,420	5,846	5,502	-	-	-	-
Total Kjeldahl Nitrogen (TKN) Excess over 35 mg/liter	-	-	-	3,812	1,313	1,235	-	-	-	-

Notes:
One charge per connection.
HRSD eliminated strength based facility charges effective 7/1/2015.

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
TREATMENT PLANT OPERATING SUMMARY
LAST TEN FISCAL YEARS
(Average Quantity per Day)**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
District Total										
Flow (MGD)	145.2	152.9	155.1	152.2	154.0	157.9	147.1	144.4	170.9	151.4
Influent (1,000 lbs.)										
BOD	285.1	288.2	282.5	286.0	288.6	274.4	254.6	273.1	275.2	300.9
TSS	215.8	215.9	228.8	198.6	204.7	198.1	200.3	205.9	210.7	203.6
TP	6.8	7.0	6.9	8.6	6.8	6.6	6.7	7.0	7.4	7.8
TKN	47.2	46.4	45.7	45.8	47.9	48.9	48.3	49.8	48.2	49.0
Effluent (1,000 lbs.)										
BOD	7.5	8.9	9.8	9.9	9.6	9.3	7.5	9.3	11.5	8.7
TSS	6.7	9.4	9.3	8.9	9.1	9.3	10.5	9.2	13.1	10.5
TP	0.7	0.9	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0
TKN	7.3	7.7	8.0	9.8	11.2	12.0	10.1	12.3	14.9	13.3
Army Base Plant										
Flow (MGD)	10.0	9.5	9.6	9.9	10.7	11.8	10.2	10.0	12.6	10.4
Influent (1,000 lbs.)										
BOD	16.3	13.2	13.3	16.4	19.0	18.5	17.4	16.9	17.0	18.1
TSS	14.0	11.7	13.3	12.5	14.2	14.4	13.7	12.9	13.5	12.9
TP	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.1	2.7	2.7	2.9	3.5	3.7	3.5	3.2	3.2	3.1
Effluent (1,000 lbs.)										
BOD	0.2	0.3	0.3	0.8	0.8	0.8	0.9	0.8	1.0	0.8
TSS	0.3	0.4	0.5	0.6	0.8	0.9	0.8	1.0	1.1	0.8
TP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	2.1	2.6	2.8	2.5	2.3	2.3	2.3
Atlantic Plant										
Flow (MGD)	26.1	28.2	27.2	30.9	25.7	26.7	29.0	29.7	30.4	26.6
Influent (1,000 lbs.)										
BOD	56.7	53.2	55.6	66.6	52.7	51.3	56.0	58.6	55.1	52.0
TSS	36.6	38.7	38.5	42.9	37.3	36.4	43.8	46.9	43.3	40.2
TP	1.3	1.4	1.4	1.5	1.3	1.3	1.5	1.8	1.8	1.9
TKN	11.2	11.0	10.9	11.4	10.4	10.5	11.7	12.3	11.3	10.5
Effluent (1,000 lbs.)										
BOD	2.4	2.3	2.7	3.0	2.2	2.6	2.0	3.0	2.3	1.8
TSS	1.6	1.9	1.9	2.4	2.0	1.9	1.8	2.0	2.9	2.2
Boat Harbor Plant										
Flow (MGD)	14.2	13.9	15.6	14.4	14.9	15.5	13.6	12.6	16.7	13.0
Influent (1,000 lbs.)										
BOD	19.2	17.4	18.3	20.0	19.2	19.3	19.9	19.4	19.9	19.9
TSS	16.6	15.7	18.1	16.3	16.7	16.0	16.9	15.6	17.5	15.2
TP	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5
TKN	3.9	3.8	3.8	3.6	3.7	3.7	3.7	3.8	3.7	3.6
Effluent (1,000 lbs.)										
BOD	0.6	0.6	1.0	0.7	0.7	0.7	0.6	0.6	1.1	0.6
TSS	0.7	0.7	0.9	0.6	0.8	0.8	0.9	0.7	1.3	0.7
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	1.3	1.2	1.8	2.2	2.4	2.9	3.0	2.8	2.8	2.6
Chesapeake-Elizabeth Plant										
Flow (MGD)	17.6	18.7	18.0	16.3	19.1	18.4	15.2	16.3	20.1	19.5
Influent (1,000 lbs.)										
BOD	37.2	35.4	35.2	30.2	38.7	32.1	24.8	30.1	32.7	36.0
TSS	26.8	26.6	26.1	22.9	26.6	25.1	21.0	22.6	26.9	27.1
TP	0.8	0.8	0.8	2.7	0.8	0.8	0.7	0.7	0.8	0.9
TKN	6.8	6.6	6.4	5.1	6.7	6.4	5.4	6.1	6.2	6.9
Effluent (1,000 lbs.)										
BOD	2.0	2.8	2.3	2.0	2.5	2.2	1.5	1.8	2.2	2.1
TSS	1.9	3.2	2.3	1.8	1.9	2.1	1.8	1.9	2.2	2.2
TP	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2
TKN	4.1	4.5	4.1	3.6	4.5	4.2	3.2	3.9	3.9	4.2

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
TREATMENT PLANT OPERATING SUMMARY
LAST TEN FISCAL YEARS
(Average Quantity per Day)**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
James River Plant										
Flow (MGD)	13.0	12.3	13.2	12.7	13.6	14.3	12.9	12.2	14.9	12.3
Influent (1,000 lbs.)										
BOD	26.8	25.5	24.4	25.7	27.5	25.5	25.3	26.2	24.7	23.0
TSS	19.3	17.4	17.8	18.0	19.4	19.2	19.0	19.8	19.9	17.6
TP	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
TKN	4.8	4.3	4.2	4.0	4.2	4.4	4.4	4.4	4.3	4.2
Effluent (1,000 lbs.)										
BOD	0.3	0.4	0.4	0.3	0.5	0.7	0.7	0.9	1.2	0.8
TSS	0.4	0.4	0.5	0.4	0.6	0.8	0.8	0.9	1.8	1.4
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.4	0.5	0.4	0.4	0.2	0.6	0.5	2.3	2.6	1.2
Nansemond Plant										
Flow (MGD)	17.5	18.8	18.5	16.6	16.9	17.1	16.2	15.9	18.0	17.1
Influent (1,000 lbs.)										
BOD	31.9	40.7	35.8	28.5	29.0	27.0	23.7	27.9	30.2	31.6
TSS	33.4	40.3	38.4	21.9	23.1	22.9	22.6	22.6	24.5	23.1
TP	1.2	1.5	1.5	1.1	1.1	1.1	1.0	1.0	1.1	1.1
TKN	7.1	7.4	7.0	5.6	5.8	5.9	6.0	6.1	6.0	6.2
Effluent (1,000 lbs.)										
BOD	0.7	0.8	0.7	0.8	0.9	0.6	0.6	0.8	1.2	0.7
TSS	0.7	0.8	0.9	0.9	1.1	0.8	0.9	1.1	1.3	1.0
TP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
TKN	0.4	0.5	0.5	0.6	0.5	0.3	0.3	0.5	2.3	1.3
Virginia Initiative Plant										
Flow (MGD)	26.7	30.9	31.7	30.5	30.7	31.9	29.8	28.5	35.7	29.9
Influent (1,000 lbs.)										
BOD	47.5	50.1	50.4	47.5	45.8	45.8	42.3	42.8	43.0	46.9
TSS	30.0	31.3	32.0	30.2	30.6	31.6	32.3	31.8	31.7	31.1
TP	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.2	1.3
TKN	7.0	7.3	7.4	7.1	7.4	7.5	7.6	7.3	7.2	7.5
Effluent (1,000 lbs.)										
BOD	0.8	1.2	1.7	1.9	1.4	0.9	0.8	0.7	1.7	1.3
TSS	0.7	1.4	1.9	1.6	1.7	1.4	1.5	1.1	1.7	1.5
TP	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
TKN	0.6	0.4	0.7	0.8	0.6	0.5	0.5	0.4	0.8	1.5
Williamsburg Plant										
Flow (MGD)	7.7	8.0	8.6	8.4	9.2	8.9	9.1	8.6	10.0	12.0
Influent (1,000 lbs.)										
BOD	32.6	36.1	33.2	34.7	40.4	37.7	33.5	37.5	37.9	59.9
TSS	24.1	19.1	27.9	16.2	19.9	16.8	16.7	19.0	19.6	23.4
TP	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.8
TKN	3.5	3.3	3.6	3.2	3.3	3.3	3.4	3.5	3.5	4.3
Effluent (1,000 lbs.)										
BOD	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
TSS	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.3	0.4	0.3
TP	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.3
York River Plant										
Flow (MGD)	12.6	12.6	12.7	12.6	13.2	13.3	11.2	10.8	12.5	10.7
Influent (1,000 lbs.)										
BOD	16.8	16.7	16.3	18.2	17.9	17.2	13.3	15.5	16.3	15.5
TSS	15.0	15.1	16.7	16.9	16.4	15.7	14.1	14.3	14.0	12.6
TP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.6	3.6	3.5	3.5	3.6	3.5	3.2	3.6	3.3	3.3
Effluent (1,000 lbs.)										
BOD	0.3	0.3	0.4	0.4	0.4	0.5	0.2	0.5	0.4	0.4
TSS	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.5	0.5
TP	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.2	0.2	0.3	0.3	0.3	0.4	0.1	0.1	0.2	0.3

Note: HRSD implemented a surcharge for Total Kjeldahl Nitrogen (TKN) on July 1, 2007.

**HAMPTON ROADS SANITATION DISTRICT
TEN LARGEST CUSTOMERS
CURRENT YEAR AND NINE YEARS AGO**

(in thousands)

<u>Customer</u>	<u>Type</u>	<u>2018</u>		<u>#</u>	<u>2009</u>	
		<u>Amount</u>	<u>Percent</u>		<u>Amount</u>	<u>Percent</u>
U.S. Navy - Norfolk Naval Base	Military Facility	\$ 5,971	2.2%	\$	2,519	1.6%
Smithfield Foods	Meat Processor	4,799	1.7%		2,349	1.5%
Anheuser - Busch, Inc.	Brewery	2,832	1.0%		5,530	3.5%
Norfolk Redevelopment & Housing Authority	Housing Authority	2,200	0.8%		966	0.6%
Norfolk Naval Shipyard	Military Ship Repair	2,102	0.8%		-	-
City of Norfolk	Municipality	1,948	0.7%		1,448	0.9%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	1,732	0.6%		1,069	0.7%
Oceana Naval Air Station / Dam Neck	Military Facility	1,622	0.6%		-	-
Joint Expeditionary Base Little Creek - Fort Story (formerly U.S. Navy - Little Creek Amphibious Base)	Military Facility	1,609	0.6%		617	0.4%
City of Virginia Beach	Municipality	1,455	0.5%		580	0.4%
U.S. Army - Fort Eustis	Military Facility	-	-		790	0.5%
U.S. Air Force - Langley Air Force Base	Military Facility	-	-		777	0.5%
Total		\$ 26,270	9.5%	\$	16,645	10.6%

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
WASTEWATER TREATMENT CHARGES
TEN LARGEST EMPLOYERS
CURRENT YEAR AND NINE YEARS AGO**

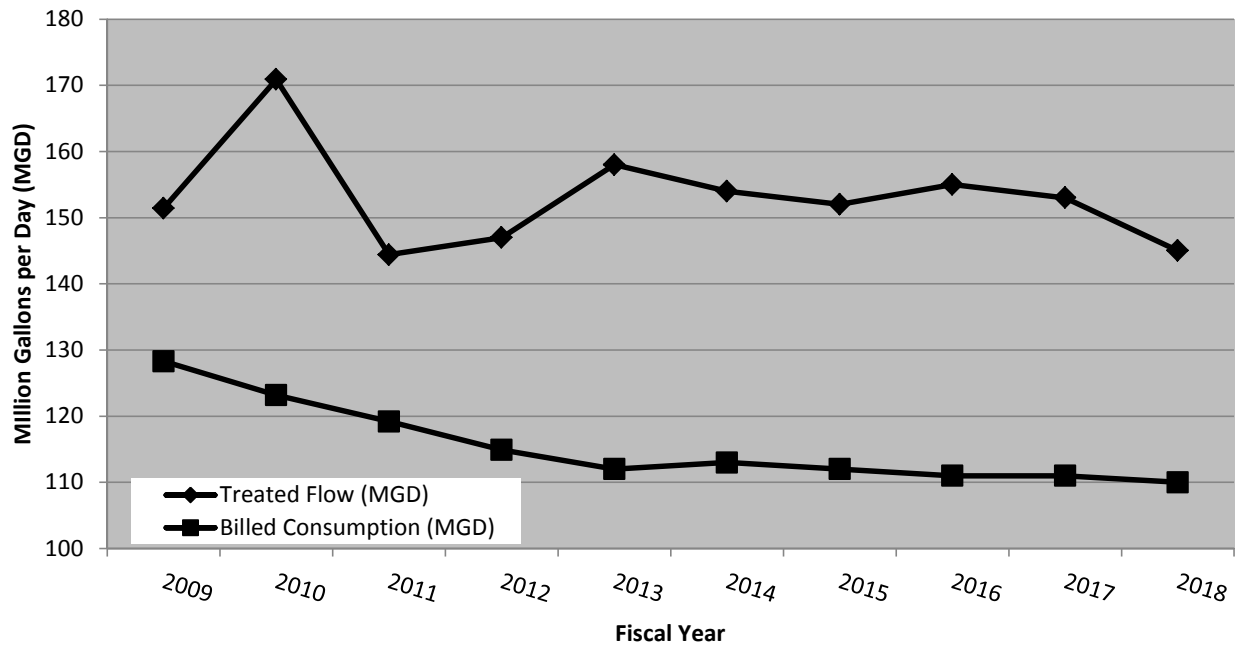
<u>Employer</u>	<u>Type</u>	<u>2018</u>			<u>2009</u>		
		<u>Number of Employees</u>	<u>Rank</u>	<u>Percent of Regional Employment</u>	<u>Number of Employees</u>	<u>Rank</u>	<u>Percent of Regional Employment</u>
Naval Station Norfolk	Military Facility	75,803	1	8.0%	66,000	1	7.5%
Huntington Ingalls Industries	Shipbuilding and Repair	23,000	2	2.4%	19,000	3	2.2%
Sentara Healthcare	Health Care Network	22,000	3	2.3%	17,000	4	1.9%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	19,788	4	2.1%	17,211	5	2.0%
Joint Base Langley-Eustis	Military Facility	19,624	5	2.1%	24,238	2	2.8%
Oceana Naval Air Station	Military Facility	17,366	6	1.8%	16,261	6	1.8%
Norfolk Naval Shipyard	Military Ship Repair	12,906	7	1.4%	8,871	8	1.0%
Naval Support Activity/ Naval Medical Center	Military Facility	11,424	8	1.2%	-	-	-
Virginia Beach Public Schools	Public Schools	10,329	9	1.1%	10,527	7	1.2%
Riverside Health System	Health Care Network	7,000	10	0.7%	7,050	9	0.8%
Norfolk City Public Schools	Public Schools	-	-	-	6,917	10	0.8%
Total		<u>219,240</u>		<u>23.1%</u>	<u>193,075</u>		<u>22.0%</u>

Sources:

Hampton Roads Economic Development Alliance
Hampton Roads Statistical Digest
Confirmation with employers

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
COMPARISON OF TREATED FLOW TO BILLED FLOW
LAST TEN FISCAL YEARS**



Year ended June 30,	Treated Flow (MGD)	Billed Consumption (MGD)
2009	151	128
2010	171	123
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111
2017	153	111
2018	145	110


Unaudited – See accompanying independent auditors’ report

**HAMPTON ROADS SANITATION DISTRICT
NUMBER OF EMPLOYEES BY IDENTIFIABLE ACTIVITY
LAST TEN FISCAL YEARS**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<u>General Management</u>										
General Manager	2	3	3	3	3	3	4	4	4	4
Support Staff	1	1	1	1	1	1	1	1	1	1
Total General Management	3	4	4	4	4	4	5	5	5	5
<u>Communications</u>										
Communications	1	-	-	-	-	-	-	-	-	-
Support Staff	1	-	-	-	-	-	-	-	-	-
Total Communications	2	-	-	-	-	-	-	-	-	-
<u>Talent Management</u>										
Human Resources	6	6	5	5	5	5	5	6	6	5
Safety	3	3	3	-	-	-	-	-	-	-
Training	2	2	2	2	2	2	2	2	2	2
Support Staff	4	4	4	3	3	3	3	3	3	3
Total Talent Management	15	15	14	10	10	10	10	11	11	10
<u>Finance</u>										
Accounting & Finance	11	10	10	10	10	10	10	10	10	10
Customer Care Center	77	77	77	69	69	68	69	69	69	63
Procurement	10	10	10	9	9	9	7	7	8	8
Support Staff	3	3	2	3	3	3	3	3	3	3
Total Finance	101	100	99	91	91	90	89	89	90	84
<u>Information Technology</u>										
Information Technology	48	47	45	39	35	35	33	33	33	21
Support Staff	2	1	1	1	1	1	2	2	2	3
Total Information Technology	50	48	46	40	36	36	35	35	35	24
<u>Operations</u>										
Army Base Treatment Plant	34	34	31	32	32	32	32	32	32	32
Atlantic Base Treatment Plant	35	35	32	33	33	33	32	32	32	33
Boat Harbor Treatment Plant	35	35	32	33	33	33	33	33	34	34
Chesapeake-Elizabeth Treatment Plant	32	32	31	32	32	32	32	32	32	32
Interceptor System Maintenance	118	117	115	120	120	120	121	122	122	106
James River Treatment Plant	22	22	20	21	21	21	21	21	21	21
Maintenance Shops	71	70	83	86	86	86	86	86	86	81
Nansemond Treatment Plant	32	32	30	31	31	31	30	30	30	30
Virginia Initiative Plant	33	33	30	31	31	31	31	31	31	31
Williamsburg Treatment Plant	29	29	28	29	29	29	31	31	31	31
York River Treatment Plant	24	24	22	23	23	23	23	23	23	23
Small Communities Division	23	23	21	17	17	17	17	17	15	15
Support Staff	23	23	24	25	25	25	24	24	24	24
Total - Operations	511	509	499	513	513	513	513	514	513	493
<u>Engineering</u>										
Design and Construction	26	25	25	21	19	19	17	15	15	15
Support Staff	13	14	14	14	14	14	14	14	14	14
Total Engineering	39	39	39	35	33	33	31	29	29	29
<u>Water Quality</u>										
Pretreatment & Pollution Prevention	27	26	26	25	24	24	24	24	24	24
Technical Services	31	29	28	25	23	21	21	21	20	20
Laboratory	46	45	42	40	38	38	38	38	38	38
Support Staff	5	6	6	6	6	6	3	3	3	3
Total Water Quality	109	106	102	96	91	89	86	86	85	85
Total Employees	830	821	803	789	778	775	769	769	768	730

Unaudited – See accompanying independent auditors' report

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**Other
Supplemental
Section** (Unaudited)

**HAMPTON ROADS SANITATION DISTRICT
SUMMARY OF PRIMARY BONDED DEBT SERVICE
JUNE 30, 2018**

(in thousands)

As of June 30,	Senior Bonds			Subordinate Bonds	Total Debt
	Principal	Interest	Debt Service	Debt Service	Service
2019	\$ 18,801	\$ 14,791	\$ 33,592	\$ 28,137	\$ 61,729
2020	19,520	14,011	33,531	28,221	61,752
2021	18,682	13,227	31,909	29,039	60,948
2022	17,977	12,396	30,373	30,198	60,571
2023	22,001	11,556	33,557	26,970	60,527
2024	22,882	10,592	33,474	26,760	60,234
2025	23,821	9,567	33,388	26,763	60,151
2026	24,134	8,499	32,633	27,173	59,806
2027	19,625	7,537	27,162	32,475	59,637
2028	20,390	6,671	27,061	29,033	56,094
2029	21,183	5,769	26,952	28,988	55,940
2030	22,010	4,829	26,839	28,983	55,822
2031	12,369	4,098	16,467	39,772	56,239
2032	9,705	3,622	13,327	37,777	51,104
2033	8,186	3,188	11,374	37,778	49,152
2034	6,465	2,793	9,258	37,782	47,040
2035	6,715	2,406	9,121	37,524	46,645
2036	6,975	2,005	8,980	34,582	43,562
2037	7,245	1,588	8,833	34,752	43,585
2038	7,525	1,155	8,680	34,632	43,312
2039	7,815	705	8,520	19,972	28,492
2040	8,115	238	8,353	17,493	25,846
2041	-	-	-	17,519	17,519
2042	-	-	-	17,544	17,544
2043	-	-	-	17,544	17,544
2044	-	-	-	17,548	17,548
2045	-	-	-	12,442	12,442
2046	-	-	-	12,493	12,493
2047	-	-	-	12,406	12,406
2048	-	-	-	4,093	4,093
Totals	<u>\$ 332,141</u>	<u>\$ 141,243</u>	<u>\$ 473,384</u>	<u>\$ 786,393</u>	<u>\$ 1,259,777</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
BUDGETARY COMPARISON SCHEDULE
JUNE 30, 2018**

(in thousands)

	<u>Budgeted Amounts</u>		Actual Amounts	Variance under	Percent Variance
	<u>Original</u>	<u>Final</u>		Final Budget	
OPERATING BUDGET EXPENSES					
General Management	\$ 681	\$ 734	\$ 709	\$ 25	3.4%
Communications	471	470	449	21	4.5%
Finance	13,593	14,086	13,618	468	3.3%
Information Technology	16,229	16,963	13,024	3,939	23.2%
Talent Management	2,280	2,340	2,198	142	6.1%
Operations	94,103	101,301	93,792	7,509	7.4%
Engineering	5,732	6,795	6,348	447	6.6%
Water Quality	14,206	14,505	13,856	649	4.5%
General	3,928	6,775	2,596	4,179	61.7%
Debt Service	<u>60,849</u>	<u>58,214</u>	<u>58,232</u>	<u>(18)</u>	0.0%
TOTAL	<u>212,072</u>	<u>222,183</u>	<u>204,822</u>	<u>\$ 17,361</u>	7.8%
Transfer to CIP	58,802	58,802			
Transfer to General Reserve	14,419	14,419			
Transfer to Risk Management	260	260			
	<u>\$ 285,553</u>	<u>\$ 295,664</u>			
Add:					
Unbudgeted Depreciation			52,349		
Unbudgeted Bad Debt Expense			1,736		
Capital Improvement Program Items Expensed			11,088		
Less:					
Capitalized Assets			1,641		
Debt Service			58,232		
Capital Distributions to Localities			311		
TOTAL OPERATING EXPENSES			<u>\$ 209,811</u>		

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
NOTES TO BUDGETARY COMPARISON SCHEDULE
JUNE 30, 2018**

BUDGETARY HIGHLIGHTS

HRSD's Commission adopts an Annual Operating Budget that contains the day-to-day operating expenses of the District. The Operating Budget as adopted for FY-2018 was \$212,072,085 and contains personnel costs, fringe benefits, material and supplies, electricity, chemicals, insurance, contractual services, debt service and other miscellaneous expenses. There were several modifications to the Operating Budget during the year to reflect changes in spending patterns. Transfers totaling \$9,760,286 for major repairs and equipment replacements plus \$350,000 transfer from General Reserve resulted in a final budget of \$222,182,371. All adjustments to the Annual Budget were approved from surplus fund balances or from transfers within or among departments.

NOTE 1 – BUDGETARY ACCOUNTING AND CONTROL

Budget Preparation

HRSD prepares its Annual Budget under the provisions of its enabling legislation, used to establish rates, fees and other charges, and of Section 3.12 of the Master Trust Indenture, dated December 1, 1993, and the Trust Agreement, dated March 1, 2008. In accordance with those provisions, the following process is used to adopt the Annual Budget.

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

The HRSD Commission appoints a Finance Committee consisting of two Commissioners. The two Commissioners meet in early April to review the Budgets, which are presented by staff at the April Commission meeting. HRSD's Commission reviews these budgets at that meeting.

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

The HRSD Commission approves any budget amendments during the ensuing year.

The 2008 Trust Agreement requires Debt Service Coverage of 1.20 times for senior and 1.00 times for total debt based on maximum annual debt service. The 2008 Subordinate Trust Agreement was amended in 2016 to account for Consent Decree expenses related to Locality wet weather improvements that HRSD will not own and requires total debt service coverage to be 1.2 times on an adjusted cash basis. The HRSD Commission has a policy of providing senior revenue and total revenue bonded debt service coverage ratios of not less than 1.5 and 1.4 times annual debt service on an adjusted cash basis, respectively.

Budget Accounting

The Annual Budget is prepared on a basis of accounting consistent with accounting principles generally accepted in the United States of America. No provision is provided, however, for non-cash items such as depreciation and bad debt expense. The FY-2018 Annual Budget consists of two parts: an operating budget that covers day-to-day operations and a capital budget that identifies all major capital project requirements over the next ten years. All operating budget amounts lapse at year-end. The Commission annually adopts only the first year of the capital budget. HRSD's Commission separately approves all contracts that are awarded under the capital budget.

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**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF REVENUES , EXPENDITURES AND
DEBT SERVICE FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

(in thousands)

	<u>Actual</u>	<u>Amended Budget</u>	<u>Variance Favorable/ (Unfavorable)</u>	<u>Budget Variance Percentage</u>
OPERATING REVENUE				
Wastewater Treatment Charges	\$ 275,539	\$ 273,088	\$ 2,451	1%
Miscellaneous	3,504	2,265	1,239	55%
TOTAL OPERATING REVENUE	<u>279,043</u>	<u>275,353</u>	<u>3,690</u>	1%
CURRENT EXPENDITURES				
General Management	709	734	25	3%
Communications	449	470	21	4%
Finance	13,618	14,086	468	3%
Information Technology	13,024	16,963	3,939	23%
Talent Management	2,198	2,340	142	6%
Operations	93,792	101,301	7,509	7%
Engineering	6,348	6,795	447	7%
Water Quality	13,856	14,505	649	4%
General	2,596	6,775	4,179	62%
TOTAL CURENT EXPENDITURES	<u>146,590</u>	<u>163,969</u>	<u>17,379</u>	11%
EXCESS OF OPERATING REVENUES OVER EXPENDITURES	<u>132,453</u>	<u>111,384</u>	<u>21,069</u>	19%
NON-OPERATING REVENUE (EXPENSE)				
Wastewater Facility Charge	6,673	6,000	673	11%
Interest Income	2,272	1,800	472	26%
Bond Interest Subsidy	2,330	2,400	(70)	-3%
TOTAL NON-OPERATING REVENUE	<u>11,275</u>	<u>10,200</u>	<u>1,075</u>	11%
INCOME BEFORE CAPITAL CONTRIBUTIONS	143,728	121,584	22,144	18%
CAPITAL CONTRIBUTIONS				
State Capital Grants	4,626	-	4,626	100%
AMOUNT AVAILABLE FOR DEBT	148,354	121,584	26,770	22%
DEBT EXPENDITURES				
Principal & Interest	57,171	57,314	143	0%
Cost of Issuance	1,061	900	(161)	-18%
TOTAL DEBT EXPENDITURES	<u>58,232</u>	<u>58,214</u>	<u>(18)</u>	0%
AMOUNT AVAILABLE TO REINVEST	<u>\$ 90,122</u>	<u>\$ 63,370</u>	<u>\$ 26,752</u>	42%

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

(in thousands)

	General Management	Communications	Finance	Information Technology	Talent Management	Operations
Personal Services	\$ 502	\$ 257	\$ 5,652	\$ 4,177	\$ 1,314	\$ 32,366
Fringe Benefits	136	103	2,580	1,596	556	15,344
Materials & Supplies	6	45	116	867	58	6,338
Transportation	12	7	9	6	21	1,201
Utilities	-	-	249	1,225	-	9,992
Chemical Purchases	-	-	-	-	-	8,750
Contractual Services	13	16	4,786	4,846	35	12,344
Major Repairs	-	-	-	143	-	5,623
Capital Assets	-	-	-	-	-	1,030
Miscellaneous Expense	40	21	226	164	214	804
	<u>\$ 709</u>	<u>\$ 449</u>	<u>\$ 13,618</u>	<u>\$ 13,024</u>	<u>\$ 2,198</u>	<u>\$ 93,792</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

(in thousands)

	Engineering	Water Quality	General	Total	Percent of Total	FY-2018 Budget	Variance Favorable/ (Unfavorable)
Personal Services	\$ 3,493	\$ 7,135	\$ 264	\$ 55,160	27%	\$ 55,261	\$ 101
Fringe Benefits	1,396	3,095	(4,531)	20,275	10%	25,600	5,325
Materials & Supplies	19	1,389	27	8,865	4%	7,914	(951)
Transportation	10	26	(21)	1,271	1%	1,437	166
Utilities	-	2	500	11,968	6%	11,973	5
Chemical Purchases	-	-	-	8,750	4%	9,219	469
Contractual Services	1,293	1,306	5,526	30,165	15%	37,524	7,359
Major Repairs	-	220	-	5,986	3%	10,821	4,835
Capital Assets	-	338	273	1,641	1%	1,716	75
Miscellaneous Expense	137	345	558	2,509	1%	2,504	(5)
	<u>\$ 6,348</u>	<u>\$ 13,856</u>	<u>\$ 2,596</u>	<u>\$ 146,590</u>	<u>72%</u>	<u>\$ 163,969</u>	<u>\$ 17,379</u>
Debt Service				57,171	28%	57,314	143
Cost of Issuance				1,061	1%	900	(161)
Total Debt Expenditures				<u>58,232</u>	<u>28%</u>	<u>58,214</u>	<u>(18)</u>
Total Department and Debt Expenditures				<u>\$ 204,822</u>	<u>100%</u>	<u>\$ 222,183</u>	<u>\$ 17,361</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
DEPARTMENT SUMMARY OF EXPENDITURES
ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
General Management			
Personal Services	\$ 502	\$ 520	\$ 18
Fringe Benefits	136	135	(1)
Materials & Supplies	6	10	4
Transportation	12	14	2
Contractual Services	13	22	9
Miscellaneous Expense	40	33	(7)
	<u>709</u>	<u>734</u>	<u>25</u>
Communications			
Personal Services	257	278	21
Fringe Benefits	103	87	(16)
Materials & Supplies	45	45	-
Transportation	7	3	(4)
Contractual Services	16	35	19
Miscellaneous Expense	21	22	1
	<u>449</u>	<u>470</u>	<u>21</u>
Finance			
Personal Services	5,652	6,069	417
Fringe Benefits	2,580	2,722	142
Materials & Supplies	116	95	(21)
Transportation	9	14	5
Utilities	249	255	6
Contractual Services	4,786	4,669	(117)
Miscellaneous Expense	226	262	36
	<u>13,618</u>	<u>14,086</u>	<u>468</u>
Information Technology			
Personal Services	4,177	4,390	213
Fringe Benefits	1,596	1,679	83
Materials & Supplies	867	975	108
Transportation	6	87	81
Utilities	1,225	1,524	299
Contractual Services	4,846	6,951	2,105
Major Repairs	143	978	835
Capital Assets	-	103	103
Miscellaneous Expense	164	276	112
	<u>13,024</u>	<u>16,963</u>	<u>3,939</u>

(Continued)

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
DEPARTMENT SUMMARY OF EXPENDITURES
ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
Talent Management			
Personal Services	\$ 1,314	\$ 1,356	\$ 42
Fringe Benefits	556	542	(14)
Materials & Supplies	58	66	8
Transportation	21	28	7
Contractual Services	35	64	29
Miscellaneous Expense	214	284	70
	<u>2,198</u>	<u>2,340</u>	<u>142</u>
Operations			
Personal Services	32,366	32,429	63
Fringe Benefits	15,344	15,407	63
Materials & Supplies	6,338	5,021	(1,317)
Transportation	1,201	1,223	22
Utilities	9,992	9,747	(245)
Chemical Purchases	8,750	9,219	469
Contractual Services	12,344	16,384	4,040
Major Repairs	5,623	9,580	3,957
Capital Assets	1,030	1,509	479
Miscellaneous Expense	804	782	(22)
	<u>93,792</u>	<u>101,301</u>	<u>7,509</u>
Engineering			
Personal Services	3,493	3,465	(28)
Fringe Benefits	1,396	1,352	(44)
Materials & Supplies	19	30	11
Transportation	10	17	7
Contractual Services	1,293	1,766	473
Major Repairs	-	9	9
Miscellaneous Expense	137	156	19
	<u>6,348</u>	<u>6,795</u>	<u>447</u>
Water Quality			
Personal Services	7,135	7,304	169
Fringe Benefits	3,095	3,162	67
Materials & Supplies	1,389	1,342	(47)
Transportation	26	51	25
Utilities	2	-	(2)
Contractual Services	1,306	1,780	474
Major Repairs	220	254	34
Capital Assets	338	104	(234)
Miscellaneous Expense	345	508	163
	<u>13,856</u>	<u>14,505</u>	<u>649</u>
General			
Personal Services	264	(550)	(814)
Fringe Benefits	(4,531)	514	5,045
Materials & Supplies	27	330	303
Transportation	(21)	-	21
Utilities	500	447	(53)
Contractual Services	5,526	5,853	327
Capital Assets	273	-	(273)
Miscellaneous Expense	558	181	(377)
	<u>2,596</u>	<u>6,775</u>	<u>4,179</u>
TOTAL DEPARTMENTAL EXPENDITURES	<u>\$ 146,590</u>	<u>\$ 163,969</u>	<u>\$ 17,379</u>

Unaudited – See accompanying independent auditors' report

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HRSD

1434 Air Rail Avenue
Virginia Beach, VA 23455
www.hrsd.com

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #6

AGENDA ITEM 6. – Retiree Health Plan Trust (OPEB) Boyd Watterson GSA



Boyd Watterson Asset Management, LLC

1801 E 9th Street, Suite 1400
Cleveland, OH 44114
Phone: (216) 771-3450

Management
Brian L. Gevry, CEO
Robert M. Law, CIO-Real Estate
Along with a 25 member team

Key Points of Interest

- Seeks an 8%+/- net income return, and 10%+/- net total return over time
- GSA leases are considered to be backed by the “full faith and credit” of the U.S. government
- Conservative complement to core real estate
- Former Administrator (CEO) of the GSA is on the management team

Fund Facts⁽¹⁾

- \$1,860 million gross assets; \$1,324 million net assets
- \$163 million in expected future commitments to fund in 2018
- Including commitments, there are 242 total investors
- 100 properties closed
- Open-end commingled investment fund; \$1 million minimum
- Quarterly distributions and opportunity for liquidity, at the current NAV
- 1.25% management fee on invested capital; no incentive or acquisition fees
- General Partner and Advisor accept fiduciary responsibility for ERISA, as applicable

The Fund

Boyd Watterson has managed its GSA strategy in a separate account since 9/30/11 and the Boyd Watterson GSA Fund, LP, real estate fund since 10/1/13.

The GSA

The GSA Fund invests predominantly in properties leased to the U.S. General Services Administration (GSA), which oversees approximately 9,600 properties. These locations include federal agencies such as the FBI, DoD, DEA, and Department of Homeland Security.

Leasing to the U.S. Government

Leasing to the U.S. government has several advantages: the leases tend to be longer and more stable than typical real estate, with higher renewal rates; the average tenure in one location is 30+ years; and the rental income is paid by the federal government.

GSA Real Estate Investment Points

- Attractive cap rates (which translate to higher income) vs. core real estate
- GSA leases are considered to be backed by the “full faith and credit” of the U.S. government
- Long term leases and 90-95% historic renewal rates lend stability to the investment
- Inefficient market with few institutional buyers devoted to the GSA space
- Targeted income returns are higher than most asset classes and may be 2-3% above core real estate
- Over time, total return is competitive with core, with less credit risk

The Fund “Sweet Spot”

- Single-tenant with customized building requirements
- Predominately newer properties between \$10-60 million outside top 10 markets
- Mission Critical: emphasize properties that protect national security, save costs, and are essential to agency mission

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GSA information sourced from www.gsa.gov, JLL and Dennis Eisen & Associates. Returns are not guaranteed. Past performance is not indicative of future results. This information is summary in nature and not a complete representation of the Fund. Information as of March 31, 2018. Terms may change at any time. This is not an offer or a solicitation to purchase interests in the Fund. A complete set of offering documents is available to accredited investors upon request.

(1) Fund statistics include closed properties as of March 31, 2018. Averages are weighted.

Boyd Watterson GSA Fund, LP

March 2018



GSA vs. Core Real Estate Differences

Estate Differences

Even for similar sized buildings in the same area, cap rates and net operating income (NOI) for GSA properties will typically be greater than core properties

Higher Returns: GSA properties typically have higher rates of income return

Lower Credit Risk: This is due to government leases

Lower Volatility: Properties are typically 100% leased for 10-15 years, which allows the investment to bridge cycles or over supply

Broader Market Opportunity:

While core properties tend to be liquid in the top 20 markets, GSA properties offer a wider breadth of opportunity and usually have competitive bids, even in the small to middle-sized segment of the market

Higher Lease Renewal Rates:

Single purpose properties are typically renewed +7-95% vs. 65%-70% for core

Lower Correlation: GSA properties are likely to have lower correlation to the economic cycle than traditional core due to the credit quality and less exposure to change in employment, industrial production, and supply and demand factors

Key Reasons to Invest

The GSA Fund focuses on buying properties leased to the U.S. federal government at higher cap rates relative to core funds, which allows it to target higher income returns relative to core (about 2.0% un-levered, 3.0%+ with typical leverage). In comparison to principal growth, income is a more certain component of return.

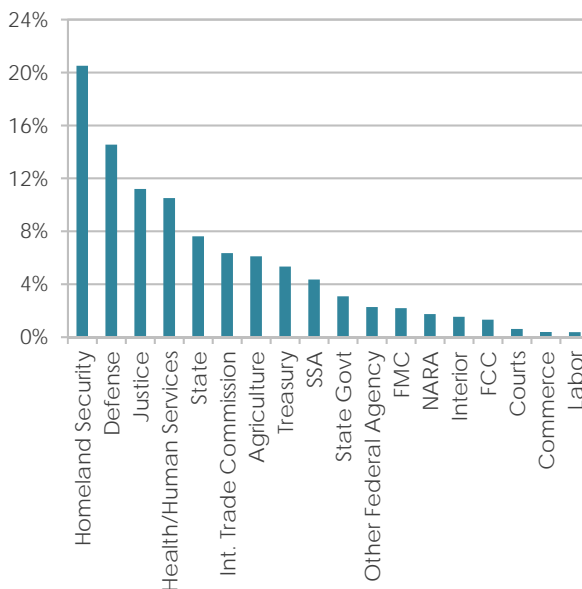
The potential for the GSA Fund to outperform core real estate is fairly strong in a weak-to-average real estate market due to the income advantage. The GSA Fund also has the potential to be more defensive in real estate market downturns.

An allocation to the GSA Fund is complementary to a typical core fund's risk/reward profile and a compelling investment option for institutional clients that seek to achieve a targeted 8% net income return plus the potential for principal growth.

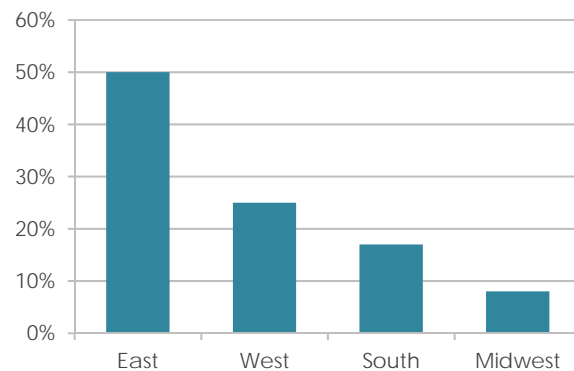
BOYD WATTERSON GSA FUND STATISTICS⁽¹⁾

Gross Assets: \$1,860M	Number of Investors: 242	Future Commitments: \$163M ⁽²⁾
Number of Properties: 100	Occupancy Rate: 94%	Average Lease Term: 7.10 years
Average Cap Rate: 7.30%	Average Cost of Debt: 3.59% ⁽³⁾	Loan to Value Ratio: 26.61%

DIVERSIFICATION BY DEPARTMENT



DIVERSIFICATION BY REGION



Boyd Watterson Asset Management, LLC

1801 East 9th Street, Suite 1400, Cleveland, OH 44114

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(1) Fund statistics include closed properties as of March 31, 2018. Averages are weighted.

(2) Expected future commitments to fund in 2018.

(3) Average cost of debt does not include unused credit line fee of 0.25%.

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #7

AGENDA ITEM 7. – Diversity Procurement Report

HRSD DIVERSITY PROCUREMENT REPORT FISCAL YEAR 2018

PAYMENT TYPE	TOTAL OF ALL PAYMENT TRANSACTIONS ¹				TOTAL PAYMENTS MADE TO SWaM CONTRACTORS COMPARED TO HRSD's TOTAL PAYMENTS	
	ALL BUSINESS TYPES		SMALL, WOMEN-OWNED AND MINORITY-OWNED BUSINESSES (SWaM)			
	NO.	SPEND	NO.	SPEND	NO.	SPEND
OPERATING	4,911	\$37,569,476	812	\$7,162,399	17%	19%
CORPORATE VISA CARD	31,037	\$14,621,290	1,702	\$1,098,512	5%	8%
CAPITAL IMPROVEMENT PROGRAM	1,199	\$111,461,449	246	\$28,588,067 ²	21%	25%
TOTAL	37,147	\$163,652,215	2,760	\$36,848,978	7%	23%

¹Excludes expenses for utilities, rent, easements, municipal expenditures, personal services, professional development, etc.

²Includes payments of \$3,536,450 made to SWaM subcontractors, as reported by HRSD's prime contractors.

DIVERSITY PROCUREMENT PROGRAM ACTIVITIES

HRSD participated in several outreach opportunities throughout the year including:

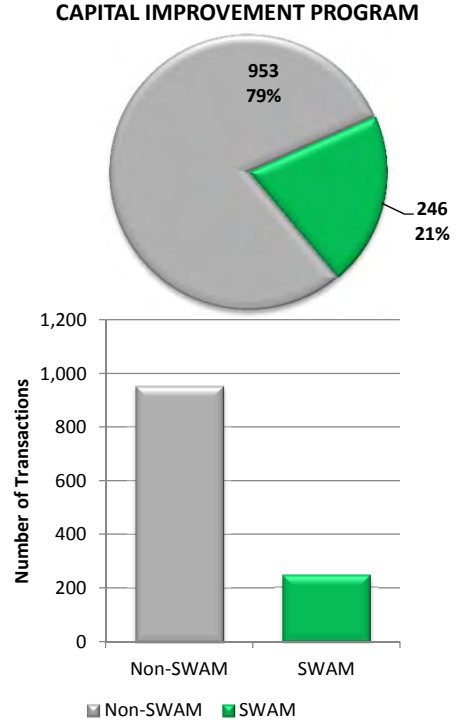
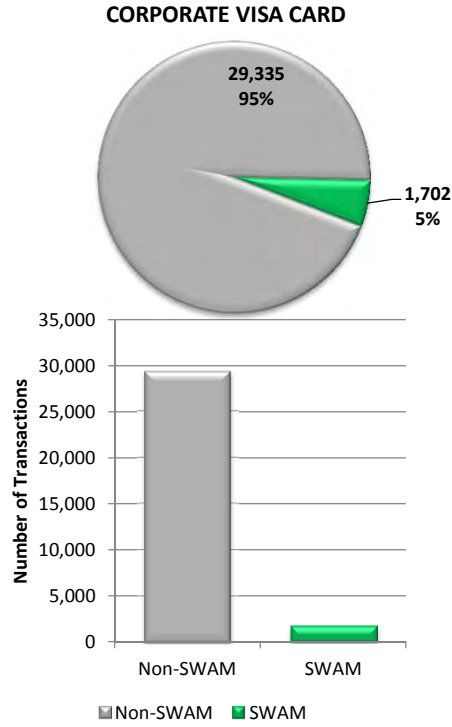
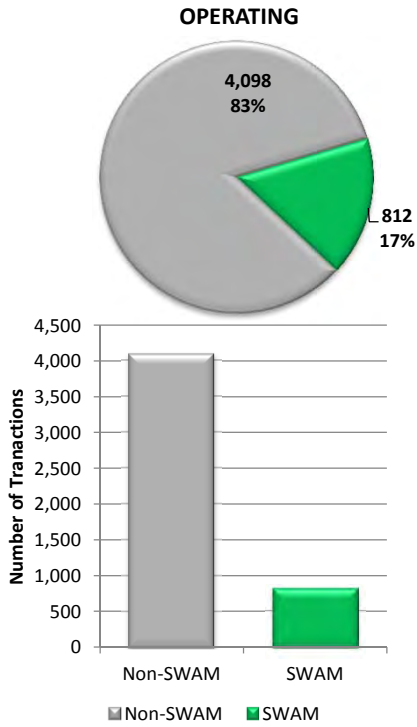
- Carolinas-Virginia Minority Supplier Development Council (CVMSDC) Supplier Diversity Annual Meeting/Supplier Development Workshops in Richmond, VA
- Christopher Newport University SWaM Fair in Newport News, VA
- City of Richmond Office of Minority Business Development (OMBD) and Carolinas-Virginia Minority Supplier Development Council (CVMSDC) Procure Your Business Conference and Vendor Expo in Richmond, VA
- City of Virginia Beach Minority Business Council Vendor Expo in Virginia Beach, VA
- Commonwealth of Virginia, Department of General Services Forum Expo in Virginia Beach, VA
- The Institute for Public Procurement (NIGP) Products Expo in Salt Lake City, UT
- Virginia American Water Works Association (VA AWWA) and the Virginia Water Environment Association (VWEA) WaterJAM Vendor Expo in Virginia Beach, VA
- Virginia Association of Governmental Purchasing Vendor Expo in Richmond, VA
- Virginia Association of State College and University Purchasing Professionals (VASCUUP®) SWaMfest in Newport News, VA
- William and Mary Supplier Diversity SWaM Fair in Williamsburg, VA

HRSD also held Supplier Orientation Sessions in Virginia Beach providing suppliers the opportunity to learn more about HRSD, discuss procurement opportunities, and learn how to do business with HRSD.

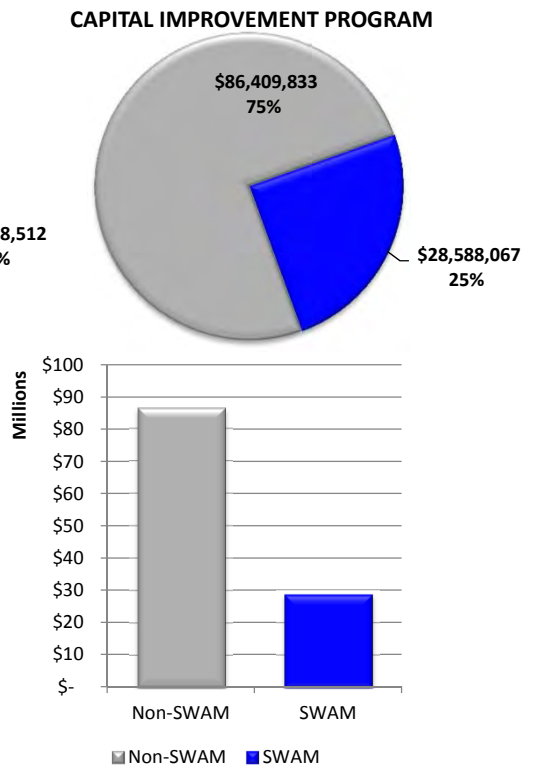
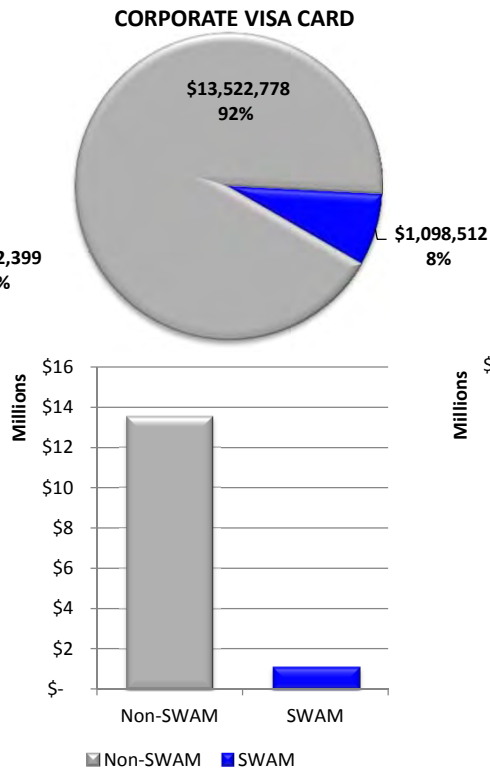
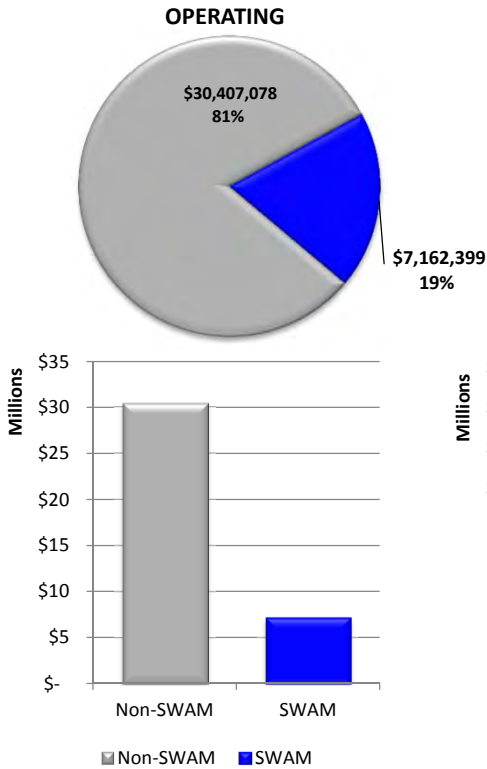
HRSD uses the Virginia Department of Small Business and Supplier Diversity (SBSD) as a resource to identify and locate SWaM businesses for HRSD bid opportunities. SBSB promotes access to the Commonwealth of Virginia's contracting opportunities by providing SWaM businesses a certification program, access to state-wide bid opportunities and other resources.

HRSD is a member of the Carolinas-Virginia Minority Supplier Development Council (CVMSDC). The CVMSDC certifies Minority Business Enterprises (MBEs), serves as a resource for corporations and government agencies searching for qualified suppliers, and sponsors networking and outreach events. The CVMSDC also offers training programs and business assistance for MBEs.

NUMBER OF SWAM TRANSACTIONS BY TYPE



AMOUNT OF SWAM PAYMENTS BY TYPE



HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #8

AGENDA ITEM 9. – Warwick to James River Influent Force Main (IFM)

180016227

616780

PREPARED BY AND RETURN TO:
Conway H. Sheild, III, Esq. (VSB # 06893)
Jones, Blechman, Woltz & Kelly, P.C.
701 Town Center Drive #800
Newport News, Virginia 23606

Tax ID Numbers:

169000201, 169000203, 169000204, 169000205, 169000206, 169000208, 169000211, 169000212, 169000213,
169000214, 169000215, 169000216, 169000217, 169000225, 169000226, 169000227, 169000229, 169000243,
169000244, 170000108, 170000109, 170000112, 170000114, 170000115, 170000186, 170000187, 170000188,
170000189, 170000195, 170000196, 170000132, 180000119, 180000108, 169000230, 170000122, 170000190, City
of Newport News (City Farm), 170000123, 179000101, 179000102, 179000118, 179000136, 179000201, 190000201,
190000202, 190000203, 190000204, 190000205, 190000206, 190000254, 170000126, 170000127, 170000128,
170000129, 170000130, 170000131, 170000158, 170000159, 170000160, 170000501, 170000502, 170000503,
170000504, 170000505, 181000520, Magnolia Greene Homes Association, 181000428.

TAX EXEMPT pursuant to § 58.1-811C(4), Code of Virginia, 1950, as amended.

THIS VACATION EASEMENT, made this 9th day November, 2018 by and between the HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, Grantor; and WILLIAM L. COKER, JR. or GLORIA J. COKER, Trustees of the William L. Coker, Jr., Revocable Trust under Amended and Restated Trust Agreement dated June 30, 2010, and any amendment thereto, and their successor(s) in trust, and GLORIA J. COKER or WILLIAM L. COKER, JR., Trustees of the Gloria J. Coker Revocable Trust under Amended and Restated Trust Agreement dated June 30, 2010 and any amendments thereto, and their successor(s) in trust, (hereinafter "Coker"), whose mailing address is 200 Wendwood Drive, Newport News, VA 23602, Grantee; DOMINICK R. BEVACQUA and MARSHA HALL BEVACQUA, husband and wife, (hereinafter "Bevacqua"), whose mailing address is 50 Scufflefield Road, Newport News, VA 23602, Grantee; EARL W. WARD, Successor Trustee under the CHARLOTTE J. WARD CREDIT SHELTER TRUST dated March 19, 2008 ((hereinafter "Ward Parcel Three"), whose mailing address is 217 Raymond Drive, Seaford, VA 23696, Grantee; EARL W. WARD, Successor Trustee under the EARL W. WARD SURVIVOR TRUST dated March 19, 2008 (hereinafter "Ward Parcel Four"), whose mailing address is 217 Raymond Drive, Seaford, VA 23696, Grantee; CYNTHIA D. LAKIN (hereinafter "Lakin"), whose mailing address is 76 Scufflefield Road, Newport News, VA 23602, Grantee; DAVID B. CARLSON and BONNIE L. CARLSON, Trustees, or their successors in

interest, of the DAVID B. CARLSON LIVING TRUST, dated July 27, 2016, and any amendments thereto, and BONNIE L. CARLSON and DAVID B. CARLSON, Trustees, or their successors in interest, of the BONNIE L. CARLSON LIVING TRUST, DATED July 27, 2016, and any amendments thereto (hereinafter "Carlson"), whose making address is 80 Scufflefield Road, Newport News, VA 23606, Grantee; DARYL S. BLOOM and DEBRA F. BLOOM, husband and wife, (hereinafter "Bloom"), whose mailing address is 92 Scufflefield Road, Newport News, VA 23602, Grantee; CLINTON E. RUDD and SUSANNE E. RUDD, husband and wife, (hereinafter "Rudd"), whose mailing address is 94 Scufflefield Road, Newport News, VA 23602, Grantee; STEVEN M. JULIANO and CHRISTINA M. JULIANO, husband and wife, (hereinafter "Juliano"), whose mailing address is 96 Scufflefield Road, Newport News, VA 23602, Grantee; ANATOLLA J. DANIELS and YOLANDA DANIELS, husband and wife, (hereinafter "Daniels"), whose mailing address is 98 Scufflefield Road, Newport News, VA 23602, Grantee; COLLINS L. OWENS, JR. and KAREN D. OWENS, husband and wife, (hereinafter "Owens"), whose mailing address is 100 Scufflefield Road, Newport News, VA 23602, Grantee; JAMES L. CASS and JENNIE L. CASS, husband and wife, (hereinafter "Cass"), whose mailing address is 102 Scufflefield Road, Newport News, VA 23602, Grantee; RICHARD HERNANDEZ and MICHELLE G. HERNANDEZ, husband and wife, (hereinafter "Hernandez"), whose mailing address is 104 Scufflefield Road, Newport News, VA 23602, Grantee; RONALD S. WAYNICK and STEPHANIE B. WAYNICK, husband and wife, (hereinafter "Waynick"), whose mailing address is 77 Meredith Way, Newport News, VA 23606, Grantee; TROY ESTELL and MELISA ESTELL, husband and wife, (hereinafter "Estell"), whose mailing address is 76 Meredith Way, Newport News, VA 23606, Grantee; ROBERT G. EDWARDS and JENNIFER A. M. EDWARDS, husband and wife, (hereinafter "Edwards"), whose mailing address is 78 Meredith Way, Newport News, VA 23606, Grantee; RICHARD J. MABE and KAREN C. MABE, husband and wife, (hereinafter "Mabe"), whose mailing address is 303 Joanna Place, Newport News, VA 23606, Grantee; JANET LYNN ANDERSON WALLER

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and RONALD FRANK WALLER, wife and husband, (hereinafter "Waller"), whose mailing address is 8 Maynard Court, Grand Isle, VT 05458, Grantee; GLEN P. DEWEY (hereinafter "Dewey"), whose mailing address is 87 Lakeside Drive, Newport News, VA 23606, Grantee; GAYE M. ARNOLD, Trustee of the Gaye M. Arnold Revocable Trust under Agreement dated July 17, 2013 (hereinafter "Arnold"), whose mailing address is 12902 Fitzhugh Drive, Newport News, VA 23602, Grantee; RICHARD S. PAPPA and GEORGIA S. PAPPA, husband and wife, (hereinafter "Pappa"), whose mailing address is 12900 Fitzhugh Drive, Newport News, VA 23602, Grantee; S. KIMBERLEY OWENS (hereinafter "S.K.Owens"), whose mailing address is 129 Scufflefield Road, Newport News, VA 23602, Grantee; CLARETHA W. LUDY (hereinafter "Ludy"), whose mailing address is 900 Pine Mill Court, Newport News, VA 23602, Grantee; DOROTHY M. BROWN and MONA D. BROWN, jointly, (hereinafter "Brown"), whose mailing address is 106 Scufflefield Road, Newport News, VA 23602, Grantee; WANDA L. PATIERNO (hereinafter "Patierno"), whose mailing address is 118 Scufflefield Road, Newport News, VA 23602, Grantee; GREGORY E. SEAY and ALICE B. SEAY, husband and wife, (hereinafter "Seay"), whose mailing address is 114 Scufflefield Road, Newport News, VA 23602, Grantee; EFRAIN PADRON, II and AMBER PADRON, husband and wife, (hereinafter "Padron"), whose mailing address is 112 Scufflefield Road, Newport News, VA 23602, Grantee; ROSS T. HARRISON and JANICE L. HARRISON, husband and wife, (hereinafter "Harrison"), whose mailing address is 110 Scufflefield Road, Newport News, VA 23602, Grantee; DWAYNE A. TIGS and VERONICA TIGS, husband and wife, (hereinafter "Tigs"), whose mailing address is 123 Scufflefield Road, Newport News, VA 23602, Grantee; THOMAS ANTHONY GASTON and ALICIA R. GASTON, (hereinafter "Gaston"), whose mailing address is 125 Scufflefield Road, Newport News, VA 23602, Grantee; ANNA LYNETTE EDENTON, MELISSA ERIN SMITH and HUDSON DAVID SMITH, devisees under the last Will and Testament of Anna Dale Smith, deceased, which Will was probated in the Clerk's office of the Circuit Court for the City of Newport News, Virginia on December 14, 2009, (hereinafter "Smith"), whose mailing address is

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302 Old Menchville Road, Newport News, VA 23602, Grantee; EDWARD L. HUBBARD and CAROL E. HUBBARD, husband and wife, (hereinafter "Hubbard") whose mailing address is 178 Normandy Lane, Newport News, VA 23606, Grantee; JOHN R. LAWSON, II, as Trustee under a trust agreement dated March 1, 1995, his successors and assigns, (hereinafter "Lawson") whose mailing address is P. O. Box 1337, Newport News, VA 23601, Grantee; ARTHUR LEWIS TRENCH and VERA DIANE TRENCH, husband and wife, (hereinafter "Trench"), whose mailing address is 305 Joanna Place, Newport News, VA 23606, Grantee; KENDELL SERRETTE and ERNESTINE JEANETTE SERRETTE, husband and wife, (hereinafter "Serrette"), whose mailing address is 142 Scufflefield Road, Newport News, VA 23602, Grantee; LISA V. NAZARETH BOONE, and REGINA L. NAZARETH-WHITE, joint tenants, (hereinafter "Boone and White"), whose mailing address is 6 Squires Place, Newport News, VA 23606, Grantee; CITY OF NEWPORT NEWS, a municipal corporation, (hereinafter "City"), whose mailing address is 2400 Washington Avenue, Newport News, VA 23607, Grantee; JOANNE CHRISTIAN, HENRY SNEED, PAMELA SNEED-SMITH, CATHERINE JONDROW, KEITH SPENCER, DELORES MILLER, ROBERTA TRUMBLE, GARY A. SPENCER, SR., VIRIAN A. SPENCER, JR., DARLENE GREENHOW, TONY SPENCER, heirs of Edith L. Spencer, deceased, as will appear from Real Estate Affidavit filed in the Clerk's Office of the Circuit Court for the City of Newport News, Virginia, Court File No. 170000235 (hereinafter "Spencer"), whose mailing address is 12978 Nettles Drive, Newport News, VA 23602, Grantee; BONNIE K. MATTHEWS, devisee under the Last Will and Testament of Hazel G. Smith, as will appear from Court File No. 100000164 in the Clerk's Office of the Circuit Court for the City of Newport News Virginia, (hereinafter "Matthews"), whose mailing address is 308 B. Old Menchville Road, Newport News, VA 23602, Grantee; HORTENSE ANN TAYLOR, Trustee of The Hortense Ann Taylor Revocable Trust Agreement dated June 13, 2012, and any amendments thereto (hereinafter "Taylor"), whose mailing address is 306B Old Menchville Road, Newport News, VA 23602, Grantee; HORTENSE ANN TAYLOR, Trustee of The

Hortense Ann Taylor Revocable Trust Agreement dated June 13, 2012, and any amendments thereto (hereinafter "Taylor Trustee"), whose mailing address is 306B Old Menchville Road, Newport News, VA 23602, Grantee; NATNOPADOL YAHATTA and LORINA YAHATTA, husband and wife, (hereinafter "Yahatta"), whose mailing address is 19 Camellia Drive, Newport News, VA 23602, Grantee; DANNY L. LUBERTAZZI and MICHELLE A. LUBERTAZZI, husband and wife, (hereinafter "Lubertazzi"), whose mailing address is 101 Canvasback Trail, Newport News, VA 23602, Grantee; PATRICIA E. CLANCY (hereinafter "Clancy"), whose mailing address is 354 Old Menchville Road, Newport News, VA 23602, Grantee; **FRANKLIN WARREN MORROW** and GARNET ELAINE MORROW, husband and wife (hereinafter "Morrow"), whose mailing address is 356 Menchville Road, Newport News, VA 23602, Grantee; STEVEN R. LAHR and KAREN S. LAHR, husband and wife, (hereinafter "Lahr", whose mailing address is 358 Menchville Road, Newport News, VA 23602, Grantee; DAVID J. BILLINGS and SARA B. BILLINGS, husband and wife, (hereinafter "Billings"), whose mailing address is 360 Old Menchville Road, Newport News, VA 23602, Grantee; MELVIN F. DANNER and JOSEPHINE M. DANNER, husband and wife, (hereinafter "Danner"), whose mailing address is 382 Old Menchville Road S, Newport News, VA 23602, Grantee; SARAH M. HOBGOOD, (hereinafter "Hobgood"), whose mailing address is 364 Old Menchville Road, Newport News, VA 23602, Grantee; GARLAND L. CARROW and JOYCE E. CARROW, husband and wife, (hereinafter "Carrow"), whose mailing address is 100 Canvasback Trail, Newport News, VA 23602, Grantee; JASON D. NIEMI and MICHELE C. NIEMI, husband and wife, (hereinafter "Niemi"), whose mailing address is 130 Meredith Way, Newport News VA 23606, Grantee; KENT E. PRICE, JR. and JENNIE N. PRICE, husband and wife, (hereinafter "Price"), whose mailing address is 134 Meredith Way, Newport News, VA 23606, Grantee; EULA P. BUTLER and SHARAYN W. BROWN (hereinafter "Butler and Brown"), whose mailing address is 136 Meredith Way, Newport News, VA 23606, Grantee; JAMES M. RANKINS and MURIEL C. RANKINS, husband and wife, (hereinafter "Rankins"), whose mailing address is 138 Meredith

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Way, Newport News, VA 23606, Grantee; LOLITA D. NEWELL, (hereinafter "Newell"), whose mailing address is 140 Meredith Way, Newport News, VA 23606, Grantee; AMANDA A. DENT and JOHN B. DENT (hereinafter "Dent") whose mailing address is 142 Meredith Way, Newport News, VA 23606, Grantee; WILBERT L. SISCO, JR. and GLORIA B. SISCO, husband and wife, (hereinafter "Sisco"), whose mailing address is 216 Cades Court, Newport News, VA, Grantee; JAMES D. EGNOT and BRENDA F. EGNOT, husband and wife, (hereinafter "Egnot") whose mailing address is 5716 High Street, Portsmouth, VA 23703, Grantee; RICHARD D. RANDALL and PAIGE H. RANDALL, husband and wife, (hereinafter "Randall"), whose mailing address is 219 Cades Court, Newport News, VA 23606, Grantee; EMILY J. WOOLLUM, (hereinafter "Woollum"), whose mailing address is 301 Savannah Court, Newport News, VA 23606, Grantee; HARRIET T. YEAPANIS (hereinafter "Yeapanis"), whose mailing address is 303 Savannah Court, Newport News, VA 23606, Grantee; THEODORE D. JENKINS and THELMA L. JENKINS, husband and wife, (hereinafter "Jenkins') , whose mailing address is 305 Savannah Court, Newport News, VA 23602, Grantee; CHARLES W. MILLER and JACQUELINE P. MILLER, husband and wife, (hereinafter "Miller"), whose mailing address is 307 Savannah Court, Newport News, VA 23606, Grantee; WALTER S. PRICE (hereinafter "Price"), whose mailing address is 309 Savannah Court, Newport News, VA 23606, Grantee; CHARLES A. HUFFMAN, III, Trustee of Hardin Land Trust (hereinafter "Huffman"), whose mailing address is 12300 A Warwick Blvd., Newport News, VA 23606, Grantee; MAGNOLIA GREENE HOMES ASSOCIATION (hereinafter "Magnolia Greene"), whose mailing address is 734 Thimble Shoals Boulevard, Newport News, VA 23606, Grantee; THE TRUSTEES OF BREMOND LODGE NO. 241 A.F. & A.M., and their successors, (hereinafter "Bremond"), whose mailing address is P.O. Box 1996, Newport News, VA 23601, Grantee; all of the named parties shown individually as "Grantee" shall be collectively listed as Grantees.

WHEREAS, Grantor has existing easements on all of the properties owned by the Grantees herein, and desires to vacate the easement of Grantor as shown on each plat for each individual Grantee, all of which are attached hereto and prayed to be made a part hereof.

NOW, THEREFORE, Grantor does by these presents release, quit-claim and vacate unto the said Grantee in each respective case the following described interest in real estate, to-wit:

Parcel One: As to the Coker parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the Clerk's Office of the Circuit Court for the City of Newport News, Virginia in Deed Book 605, page 329, and known and designated as "PORTION OF 10' PERPETUAL EASEMENT D.B. 605, PG. 329 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF WILLIAM L. AND GLORIA J. COKER, TRUSTEES, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid property being vacated.

Parcel Two: As to the Bevacqua parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 680, page 555, and known and designated as "10' PERPETUAL EASEMENT D.B. 680, PG. 555 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF DOMINICK R. AND MARSHA HALL BEVACQUA, NEWPORT NEWS, VA", dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid property being vacated.

Parcel Three: As to the Ward Parcel Three, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 666, page 406, and known and designated as "30' PERPETUAL EASEMENT D.B. 666 PG. 406 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EARL. W. WARD, SUCCESSOR TRUSTEE, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid property being vacated.

Parcel Four: As to the Ward Parcel Four, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 666,

page 402, and Deed Book 666, page 404, and known and designated as "30' PERPETUAL EASEMENT D.B. 666, PG. 402 & D.B. 666, PG. 404 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EARL W. WARD, SUCCESSOR TRUSTEE, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid property being vacated.

Parcel Five: As to the Lakin parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 609, page 113, Deed Book 666, page 402, and Deed Book 666, page 408, and known and designated as "30' PERPETUAL EASEMENT D.B. 609, PG. 113, D.B. 666, PG. 402 & D.B. 666, PG. 408 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF CYNTHIA D. LAKIN, NEWPORT NEWS, VA", dated April 13 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid property being vacated.

Parcel Six: As to the Carlson parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 609 page 113, and known and designated as "30' PERPETUAL EASEMENT D.B. 609, PG. 113 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF DAVID B. AND BONNIE L. CARLSON, TRUSTEES, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid parcel being vacated.

Parcel Seven: As to the Bloom parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF DARYL S. AND DEBRA F. BLOOM, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the aforesaid parcel being vacated.

Parcel Eight: As to the Rudd parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT

ACROSS THE PROPERTY OF CLINTON E. AND SUSANNE E. RUDD, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Nine: As to the Juliano parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF STEVEN M. AND CHRISTINA M. JULIANO, NEWPORT NEWS VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Ten: As to the Daniels parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF ANATOLLA J AND YOLANDA DANIELS, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Eleven: As to the Owens parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF COLLINS L. AND KAREN D. OWENS, JR., NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twelve: As to the Cass parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF JAMES L. AND JENNIE L. CASS, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and

made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirteen: As to the Hernandez parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF RICHARD AND MICHELLE G. HERNANDEZ, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fourteen: As to the Waynick parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF RONALD S. AND STEPHANIE B. WAYNICK, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifteen: As to the Estell parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF TROY AND MELISA ESTELL, NEWPORT NEWS VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixteen: As to the Edwards parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF ROBERT G. AND JENNIFER A.M. EDWARDS, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Seventeen: As to the Mabe parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF RICHARD J. AND KAREN C. MABE, NEWPORT NEWS, VA" dated April 10, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Eighteen: As to the Waller parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 607, Page 229, and known and designated as "10' PERPETUAL EASEMENT D.B. 607, PG. 229" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 607, PG. 229 NEWPORT NEWS, VA" dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Nineteen: As to the Dewey parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 607, page 229, and known and designated as "10' PERPETUAL EASEMENT D.B. 607, P.G. 229" as shown on the certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 607, PG. 229, NEWPORT NEWS, VA" dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty: As to the Arnold parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 605, page 326, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 605, PG. 326 HEREBY VACATED (SEE INSET 'A')" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF GAYE M. ARNOLD, TRUSTEE, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-One: As to the Pappa parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 605, page 326, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 605, PG. 326 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT

ACROSS THE PROPERTY OF RICHARD S. AND GEORGIA S. PAPPA, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Two: As to the S.K.Owens parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 199, and known and designated as "PERPETUAL EASEMENT D.B. 608, PG. 199 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF SUSAN KIMBERLY OWENS, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Three: As to the Ludy parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 606, page 409, and known and designated as "PERPETUAL EASEMENT D.B 606, PG. 409 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF CLARETHA W. LUDY, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Four: As to the Brown parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 607, page 440, and known and designated as "30' PERPETUAL EASEMENT D.B. 607, PG. 440 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROEPRTY OF DOROTHY M. AND MONA D. BROWN,NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmian &Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Five: As to the Patierno parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 613, page 110, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 615, PG. 110 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF WANDA L. PATIERNO, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Six: As to the Seay parcel, plat of which is attached hereto and prayed to be made a part hereof, certain Portions of 30'

Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 609, page 13, and Deed Book 613, page 110, and known and designated as "PORTIONS OF 30' PERPETUAL EASEMENT D.B. 609, PG. 13 & D.B. 613, PG. 110 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF GREGORY E. AND ALICE B. SEAY, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Seven: As to the Padron parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portions of 30' Perpetual Easement recorded in Deed Book 608, page 472, and Deed Book 609, page 13, and known and designated as "PORTIONS OF 30' PERPETUAL EASEMENT D.B. 608, PG. 472 & D.B. 609, PG. 13 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EFRAIN PADRON, II AND AMBER PADRON, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Eight: As to the Harrison parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608 page 472, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 608, PG 472 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF ROSS T. HARRISON AND JANICE L. HARRISON, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Twenty-Nine: As to the Tigs parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 606, page 301, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 606, PG. 301 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF DWAYNE A. AND VERONICA TICS, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty: As to the Gaston parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 606, page 301, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 606, PG. 301 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE

PROPERTY OF THOMAS ANTHONY AND ALICIA R. GASTON, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-One: As to the Smith parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 638, page 291, and known and designated as "10' PERPETUAL EASEMENT D.B. 638, PG. 291" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 638, PAG. 291, NEWPORT NEWS, VA" dated July 2, 2018 (0709-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-Two: As to the Hubbard parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 605, page 339, and known and designated as "PORTION OF 10' PERPETUAL EASEMENT D.B. 605, PG. 339 (CERT.) HEREBY VACATED (SEE NOTE 5)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EDWARD L. AND CAROL E .HUBBARD, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated,

Parcel Thirty-Three: As to the Lawson parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 611, page 631, and known and designated as "PERPETUAL EASEMENT D.B. 611. PG. 631 (CERT.) HEREBY VACATED (SEE NOTE 5)" and a certain Portion of 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 605 page 339, and known and designated a "PORTION OF 10' PERPETUAL EASEMENT D.B. 605, PG. 339 (CERT.) HEREBY VACATED (SEE NOTE 5)" all of which as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF LAWSON POINT, L.L.C., NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcels being vacated.

Parcel Thirty-Four: As to the Trench parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' HRSD Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 608, page 264, and known and designated as "PORTION OF 30' HRSD PERPETUAL EASEMENT D.B. 608, PG. 264 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF ARTHUR LEWIS AND VERA DIANE TRENCH NEWPORT NEWS, VA", dated April 10,

2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-Five: As to the Serrette parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 632, page 660, and known and designated as "PERPETUAL EASEMENT D.B. 632, PG. 660 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF KENDELL AND ERNESTINE JEANETTE SERRETTE, NEWPORT NEWS, VA" dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-Six: As to the Boone and White parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 620, page 189, and known and designated as "PORTION OF PERPETUAL EASEMENT D.B. 620, PG.189 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF LISA V. NAZARETH BOONE AND REGINA L. NAZARETH-WHITE, NEWPORT NEWS, VA", dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-Seven: As to the City parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 15' Perpetual Easement (B-2) recorded in the aforesaid Clerk's Office in Deed Book 597, page 355, a certain 15' Perpetual Easement (B-4) recorded in the aforesaid Clerk's Office in Deed Book 597, page 355, a certain Portion of 30' Perpetual Easement (A-1) recorded in the aforesaid Clerk's Office in Deed Book 597, page 355, and a certain 30' and 120' Perpetual Easement (D-1) recorded in the aforesaid Clerk's Office in Deed Book 597, page 355, being known and designated as "15' PERPETUAL EASEMENT (B-2) D.B. 597, PG. 355 HEREBY VACATED" and "15' PERPETUAL EASEMENT (B-4) D.B. 597M, PG. 355 HEREBY VACATED", and "PORTION OF 30' PERPETUAL EASEMENT (A-1) D.B. 597, PG. 355 HEREBY VACATED", and "30' AND 120' PERPETUAL EASEMENT (D-1) D.B. 597, PG. 355 HEREBY VACATED" all as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF CITY OF NEWPORT NEWS, NEWPORT NEWS, VA", dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcels being vacated.

Parcel Thirty-Eight: As to the Spencer parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 666, page 400, and known and designated as "PORTION OF

PERPETUAL EASEMENT D.B. 666, PG. 400 HEREBY VACATED" as shown on the certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF GARY A. SPENCER, ET ALS, NEWPORT NEWS, VA", dated April 13, 2018, made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Thirty-Nine: As to the Matthews parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 638, page 288 and Deed Book 638, page 294, and known and designated as "10' PERPETUAL EASEMENT D.B. 638, PG. 288 & D.B. 638, PG. 294 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF BONNIE K. MATHEWS, ET ALS, NEWPORT NEWS, VA", dated July 2, 2018 (07-03-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty: As to the Taylor parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 638, page 297, and known and designated as "10' PERPETUAL EASEMENT D.B. 638, PG. 297 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF HORTENSE ANN TAYLOR, TRUSTEE, NEWPORT NEWS, VA", dated May 11, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-One: As to the Taylor Trustee parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 638, page 297, and known and designated as "10' PERPETUAL EASEMENT D.B. 638, PG. 297 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF HORTENSE ANN TAYLOR, TRUSTEE, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Two: As to the Yahatta parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 589, page 453, and known and designated as "10' PERPETUAL EASEMENT D.B. 589, PG. 453" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 589, PG. 453, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat

is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Three: As to the Lubertazzi parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (0709-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Four: As to the Clancy parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Five: As to the Morrow parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Six: As to the Lahr parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (0709-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Seven: As to the Billings parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled

"EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA" dated July 2, 2018 (07-0918) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Eight: As to the Danner parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated June 25, 2018 (07-09-18), made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Forty-Nine: As to the Hobgood parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (0709-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty: As to the Carrow parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain 10' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 604, page 391, and known and designated as "10' PERPETUAL EASEMENT D.B. 604, PG. 391" as shown on that certain plat entitled "EXHIBIT SHOWING LOCATION OF 10' PERPETUAL EASEMENT D.B. 604, PG. 391, NEWPORT NEWS, VA", dated July 2, 2018 (0709-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-One: As to the Niemi parcel, plat of which is attached hereto and prayed to be made a part hereof, a certain Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF JASON D. AND MICHELE C. NIEMI, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Two: As to the Price parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF KENT E. PRICE, JR. AND JENNIE N. PRICE, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18), made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Three: As to the Butler and Brown parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EULA P. BUTLER AND SHARALYN W. BROWN, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Four: As to the Rankins parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF JAMES M. AND MURIEL C. RANKINS, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Five: As to the Newell parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF LOLITA D. NEWELL, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Six: As to the Dent parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30'

PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF AMANDA A. AND JOHN B. DENT, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Seven: As to the Sisco parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF WILBERT L. SISCO, JR. AND GLORIA B. SISCO, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Eight: As to the Egnot parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF JAMES D. AND BRENDA F. EGNOT, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Fifty-Nine: As to the Randall parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF RICHARD D. AND PAIGE H. RANDALL, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty: As to the Woollum parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF EMILY J. WOOLLUM, NEWPORT NEWS, VA", dated April 25, 2018 (04-30-18) made by Johnson,

Mirmian & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-One: As to the Yeapanis parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF HARRIET T. YEAPANIS, NEWPORT NEWS, VA", dated April 25, 2018 (04-30-18), made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Two: As to the Jenkins parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF THEODORE D. AND THELMA L. JENKINS, NEWPORT NEWS, VA", dated April 25, 2018 (04-30-18), made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Three: As to the Miller parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF CHARLES W. AND JACQUELINE P. MILLER, NEWPORT NEWS, VA", dated April 25, 2018 (04-30-18), made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Four: As to the Price parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 (HEREBY VACATED)", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF WALTER S. PRICE, NEWPORT NEWS, VA", dated April 25, 2018 (04-30-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Five: As to the Huffman parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 601, page 470, Deed Book 602, page 419, Deed Book 604, page 187, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B.601, PG. 470, D.B. 602, PG. 419, D.B. 604, PG. 187 (HEREBY VACATED)", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF CHARLES A. HUFFMAN, III, TRUSTEE, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Six: As to the Magnolia Greene parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 129, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 129 HEREBY VACATED" as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF MAGNOLIA GREEN HOMES ASSOCIATION, NEWPORT NEWS, VA", dated July 2, 2018 (07-0918) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

Parcel Sixty-Seven: As to the Bremond parcel, plat of which is attached hereto and prayed to be made a part hereof, a Portion of 30' Perpetual Easement recorded in the aforesaid Clerk's Office in Deed Book 602, page 419, Deed Book 604, page 187, and Deed Book 609, page 481, and known and designated as "PORTION OF 30' PERPETUAL EASEMENT D.B. 602, PG. 419, D.B. 604, PG. 187, D.B. 609, PG. 481 HEREBY VACATED", as shown on that certain plat entitled "EASEMENT VACATION PLAT ACROSS THE PROPERTY OF BREMOND LODGE #241 AF & AM TRUST, NEWPORT NEWS, VA", dated July 2, 2018 (07-09-18) made by Johnson, Mirmiran & Thompson, a copy of which plat is attached hereto and made a part hereof for a more particular description of the parcel being vacated.

(Remainder of page intentionally left blank — Signature Page follows)

IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Vacation Easement to be signed on its behalf by its General manger in accordance with authorization granted at its regular meeting held on October 23, 2018.

WITNESS the following signature and seal:

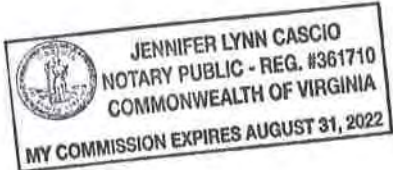
HAMPTON ROADS SANITATION DISTRICT

BY *EGH*
Edward G. Henifin, PE
General Manager

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

I hereby certify on this 9th day of November, 2018, that Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District, acknowledged the foregoing Vacation Easement before me. He is personally known to me.

My commission expires: 8/31/2022



Jennifer L. Cascio
Notary Public
Registration No: 361710

NOW OR FORMERLY
HORTENSE ANN
TAYLOR, TRUSTEE
PARCEL 179000102
DOC# 120012275



OLD MENCHVILLE ROAD

12' LANE

± 12' LANE

BONNIE K.
MATHEWS, ET ALS

PARCEL 179000101
DOC# W100000164

10' PERPETUAL
EASEMENT
D.B. 638, PG. 288 &
D.B. 638, PG. 294
(HEREBY VACATED)

360' ± TO
CAMELLIA DRIVE

NOW OR FORMERLY
HORTENSE ANN
TAYLOR, TRUSTEE
PARCEL 179000118
DOC# 120012276



DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 638, PG. 288 & D.B. 638, PG. 294
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 638, PG. 288 & D.B. 638, PG. 294.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON

Engineering A Brighter Future®

272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
BONNIE K. MATHEWS, ET ALS
NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018

JMT PROJ. #17-10162-05A

SHEET 1 OF 1

CIP# JR011100



NOW OR FORMERLY
 ANNA LYNNETTE EDENTON,
 MELISSA ERIN SMITH AND
 HUDSON DAVID SMITH
 PARCEL 169000205
 DOC# W090000877

OLD MENCHVILLE ROAD

HORTENSE ANN
 TAYLOR, TRUSTEE


PARCEL 179000102
 DOC# 120012275

10' PERPETUAL
 EASEMENT
 D.B. 638, PG. 297
 (HEREBY VACATED)

463' ± TO
 CAMELLIA DRIVE

12' LANE
 12' LANE

NOW OR FORMERLY
 BONNIE K. MATTHEWS, ET ALS
 PARCEL 179000101
 DOC# W100000164

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 638, PG. 297
 HEREBY VACATED

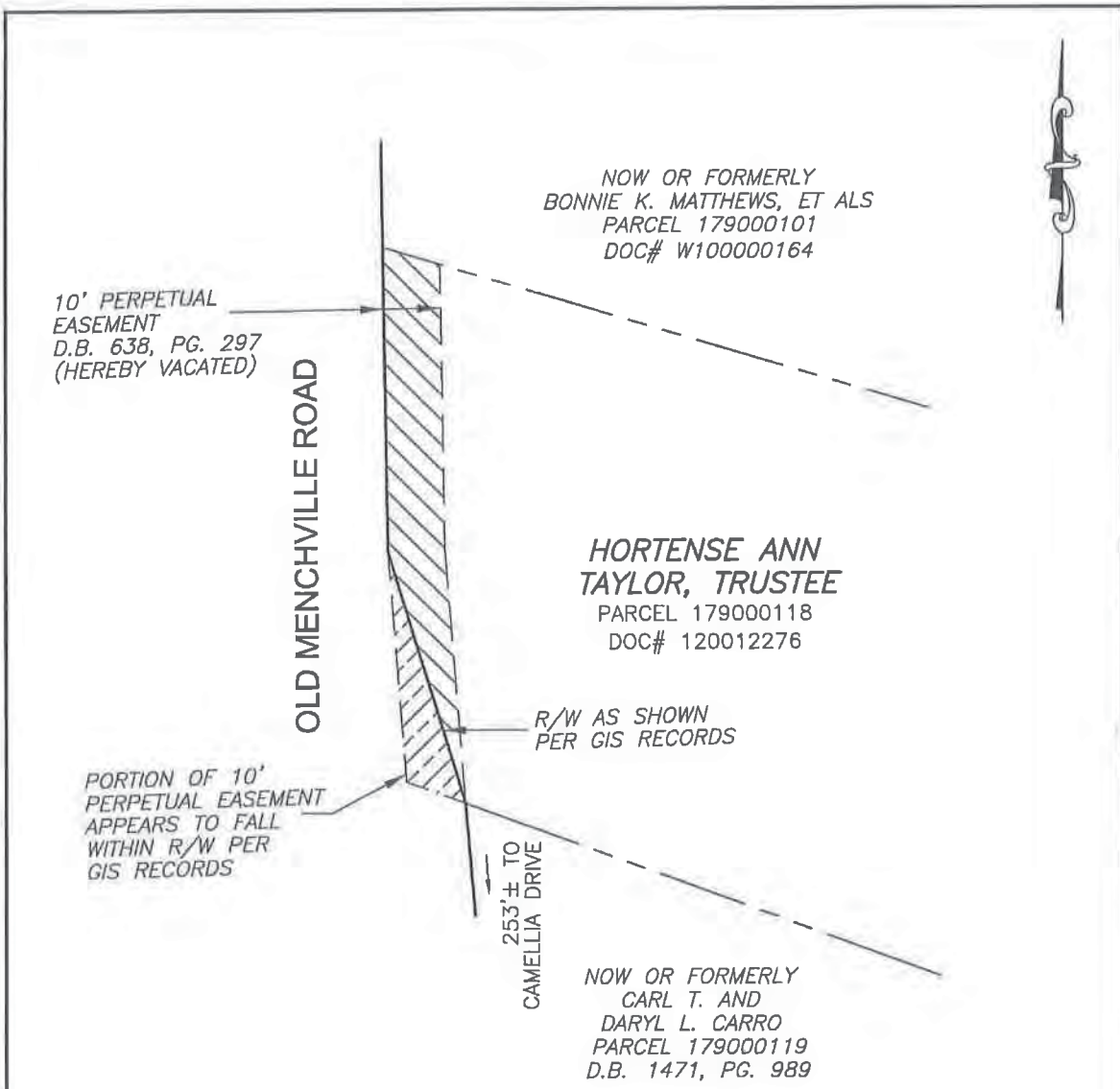
NOTES:



1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 638, PG. 297.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
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 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH VA 23452
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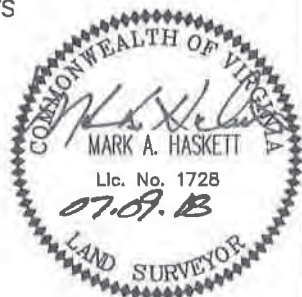
EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 HORTENSE ANN TAYLOR, TRUSTEE
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - MAY 11, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



-  DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 638, PG. 297 HEREBY VACATED
-  DENOTES PORTION OF 10' PERPETUAL EASEMENT RECORDED IN D.B. 638, PG. 297 NOW IN RIGHT-OF-WAY

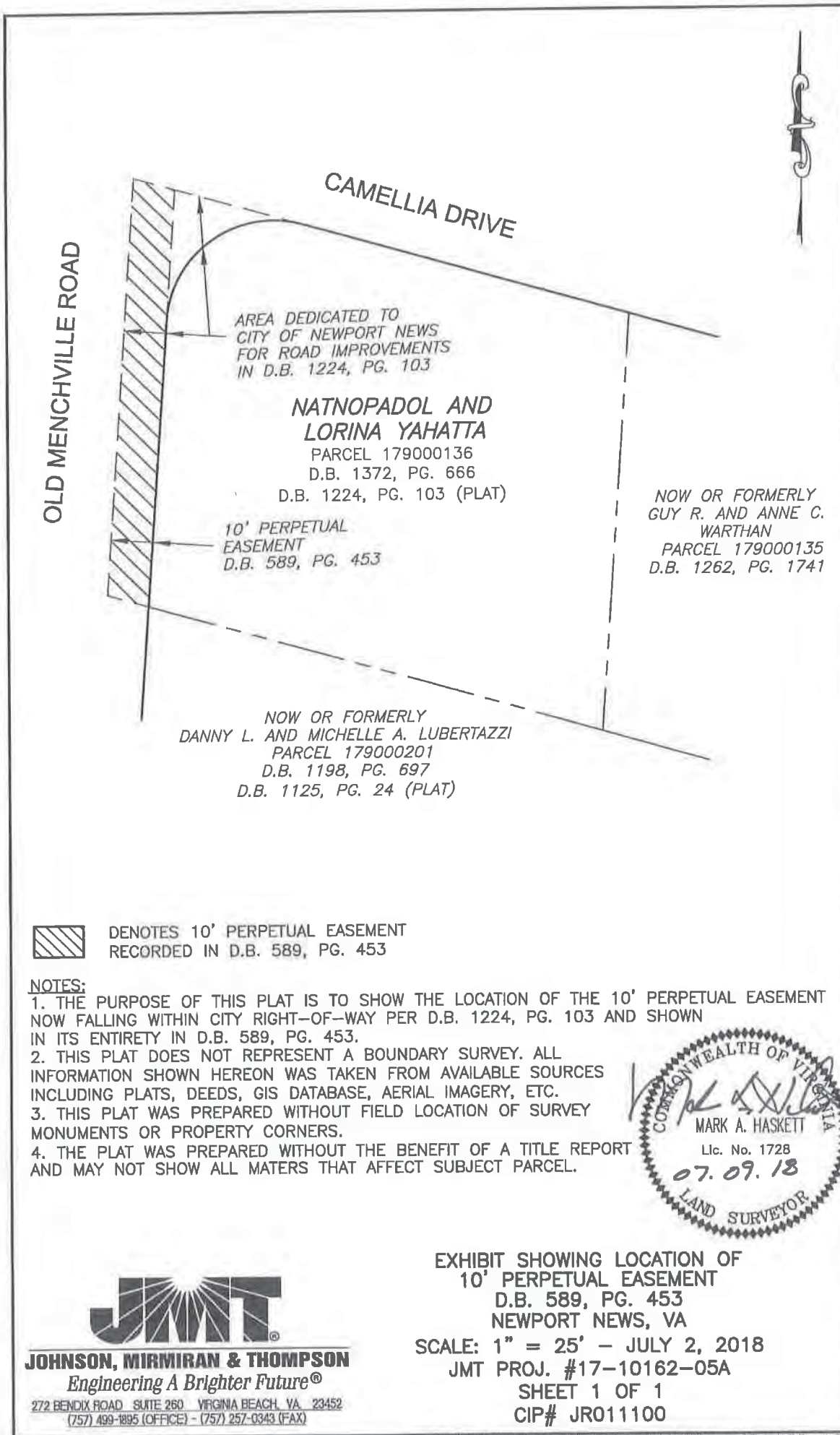
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN GIS RECORDS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.




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**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 HORTENSE ANN TAYLOR, TRUSTEE
 NEWPORT NEWS, VA**
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



AREA DEDICATED TO
CITY OF NEWPORT NEWS
FOR ROAD IMPROVEMENTS
IN D.B. 1224, PG. 103


**NATNOPADOL AND
LORINA YAHATTA**

PARCEL 179000136
D.B. 1372, PG. 666
D.B. 1224, PG. 103 (PLAT)

NOW OR FORMERLY
GUY R. AND ANNE C.
WARTHAN
PARCEL 179000135
D.B. 1262, PG. 1741

10' PERPETUAL
EASEMENT
D.B. 589, PG. 453

NOW OR FORMERLY
DANNY L. AND MICHELLE A. LUBERTAZZI
PARCEL 179000201
D.B. 1198, PG. 697
D.B. 1125, PG. 24 (PLAT)

 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 589, PG. 453

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER D.B. 1224, PG. 103 AND SHOWN IN ITS ENTIRETY IN D.B. 589, PG. 453.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 589, PG. 453
NEWPORT NEWS, VA

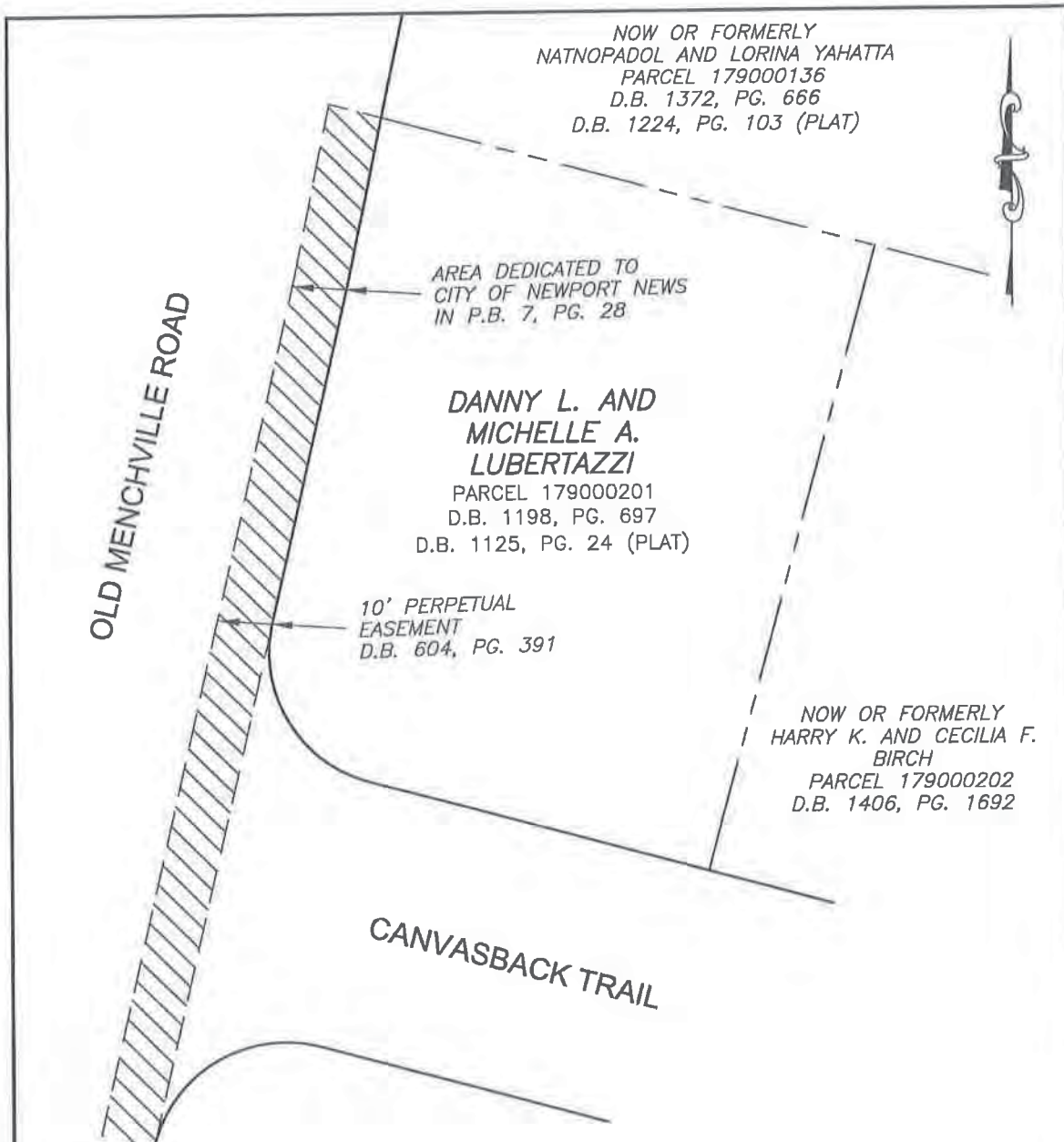
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



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(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

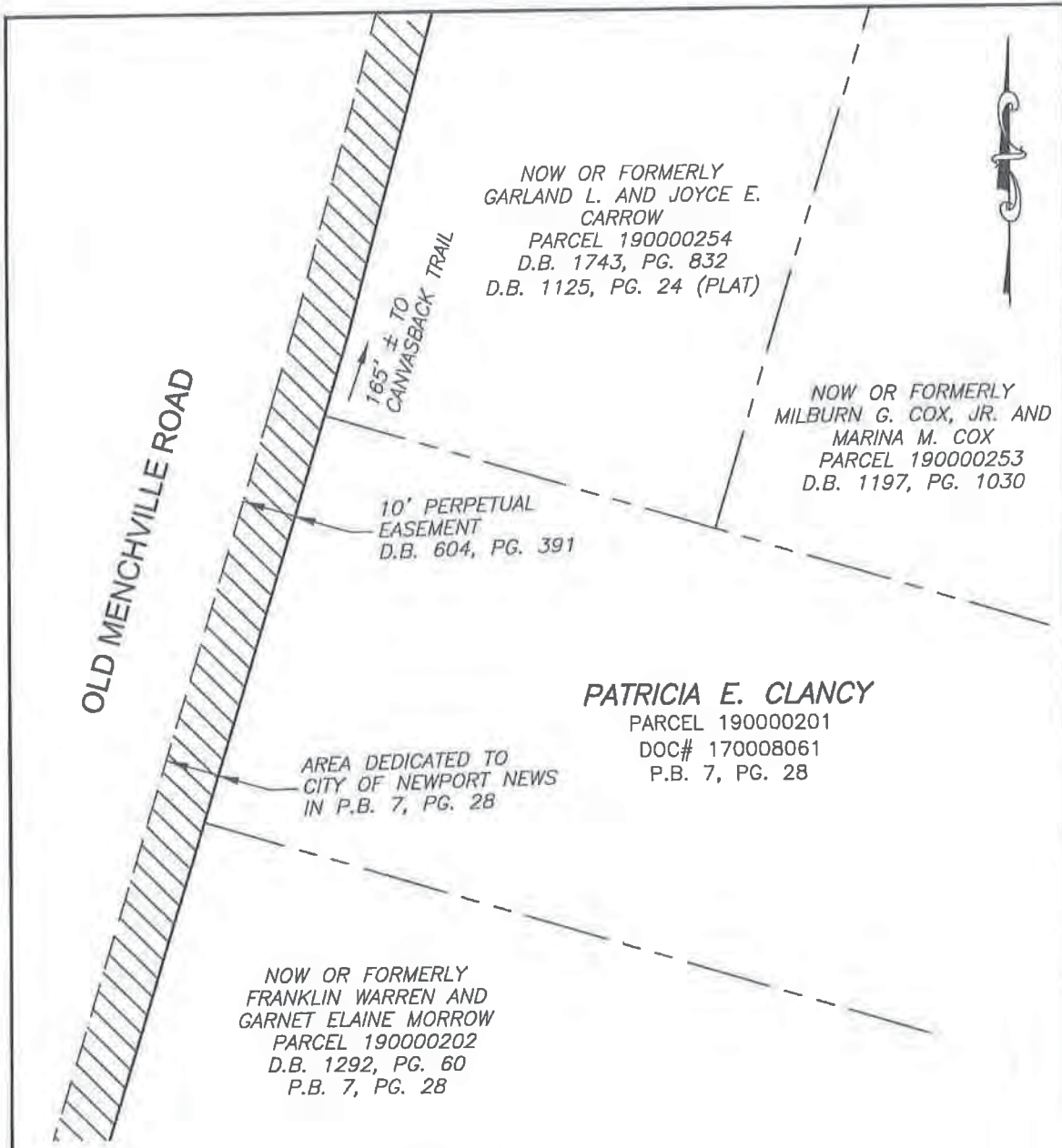
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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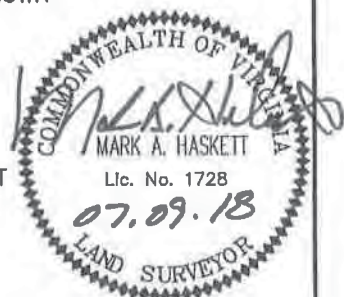
EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

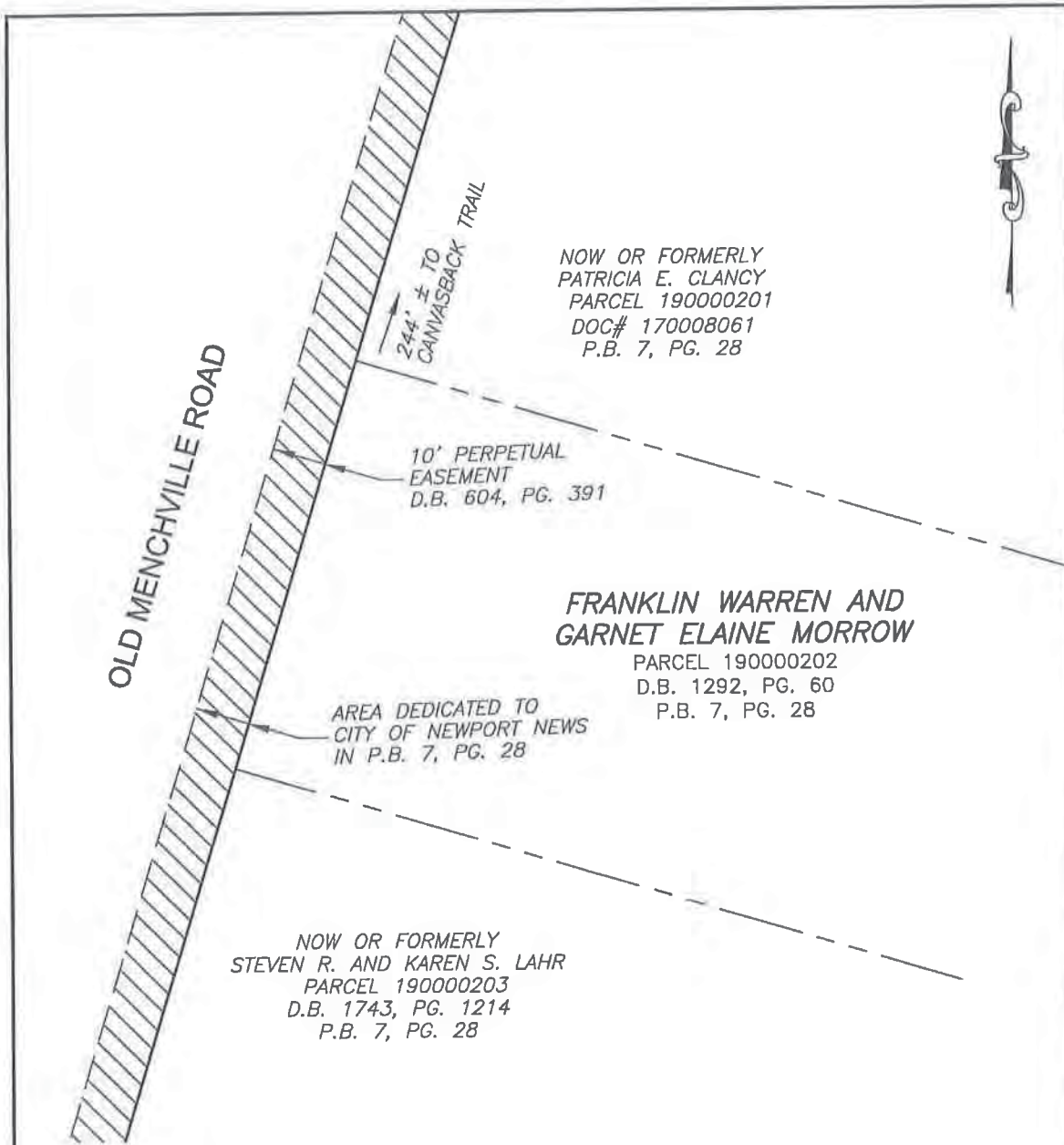
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.




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272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 604, PG. 391

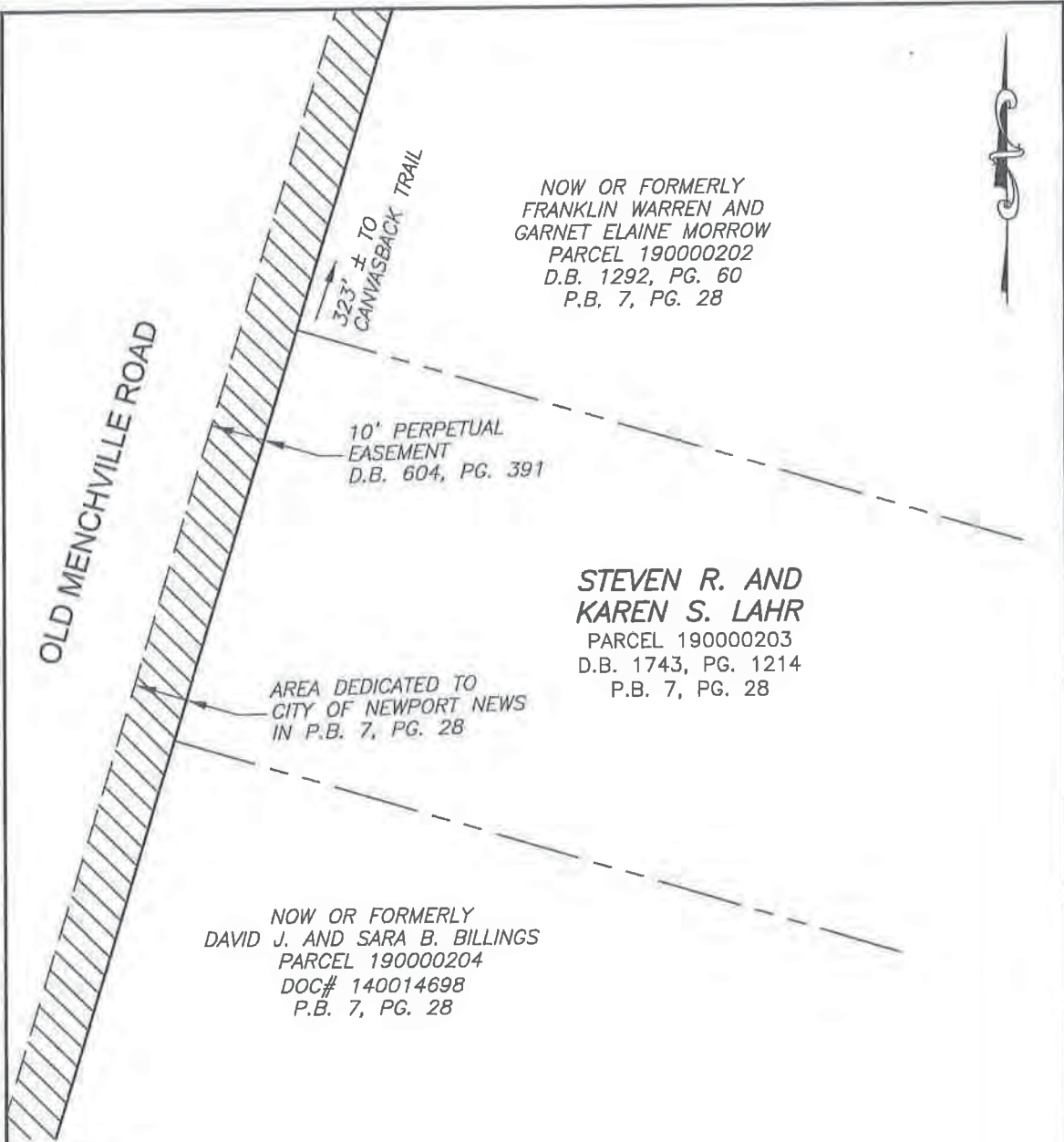
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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 (757) 499-1995 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



NOW OR FORMERLY
FRANKLIN WARREN AND
GARNET ELAINE MORROW
PARCEL 190000202
D.B. 1292, PG. 60
P.B. 7, PG. 28

STEVEN R. AND
KAREN S. LAHR
PARCEL 190000203
D.B. 1743, PG. 1214
P.B. 7, PG. 28

NOW OR FORMERLY
DAVID J. AND SARA B. BILLINGS
PARCEL 190000204
DOC# 140014698
P.B. 7, PG. 28

OLD MENCHVILLE ROAD

32.3' ± TO
CANVASBACK TRAIL

10' PERPETUAL
EASEMENT
D.B. 604, PG. 391

AREA DEDICATED TO
CITY OF NEWPORT NEWS
IN P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

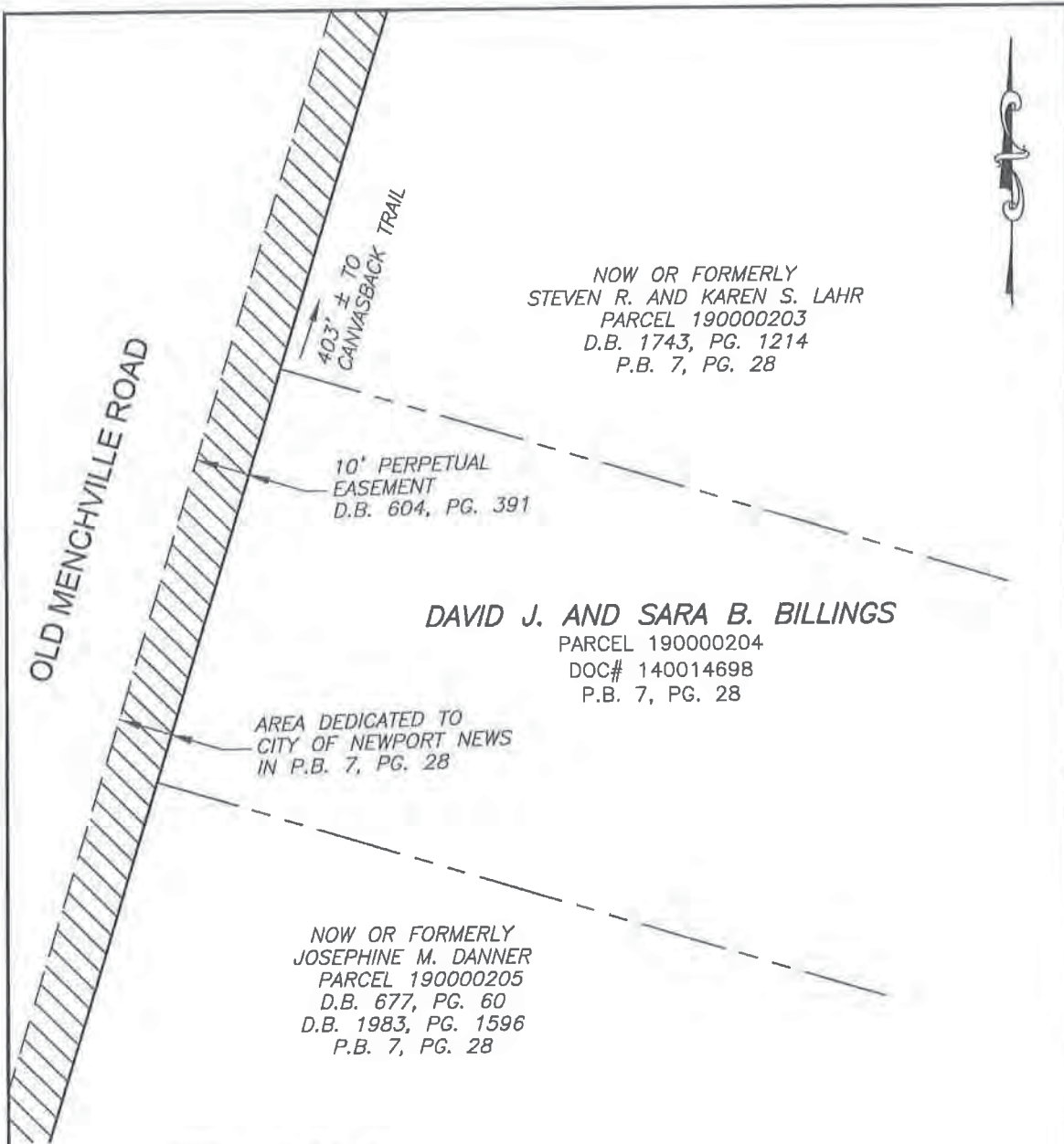
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
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(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



NOW OR FORMERLY
 STEVEN R. AND KAREN S. LAHR
 PARCEL 190000203
 D.B. 1743, PG. 1214
 P.B. 7, PG. 28


10' PERPETUAL
 EASEMENT
 D.B. 604, PG. 391

DAVID J. AND SARA B. BILLINGS

PARCEL 190000204
 DOC# 140014698
 P.B. 7, PG. 28

AREA DEDICATED TO
 CITY OF NEWPORT NEWS
 IN P.B. 7, PG. 28

NOW OR FORMERLY
 JOSEPHINE M. DANNER
 PARCEL 190000205
 D.B. 677, PG. 60
 D.B. 1983, PG. 1596
 P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIAN & THOMPSON

Engineering A Brighter Future®

272 BENDIX ROAD, SUITE 260 VIRGINIA BEACH, VA. 23452
 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

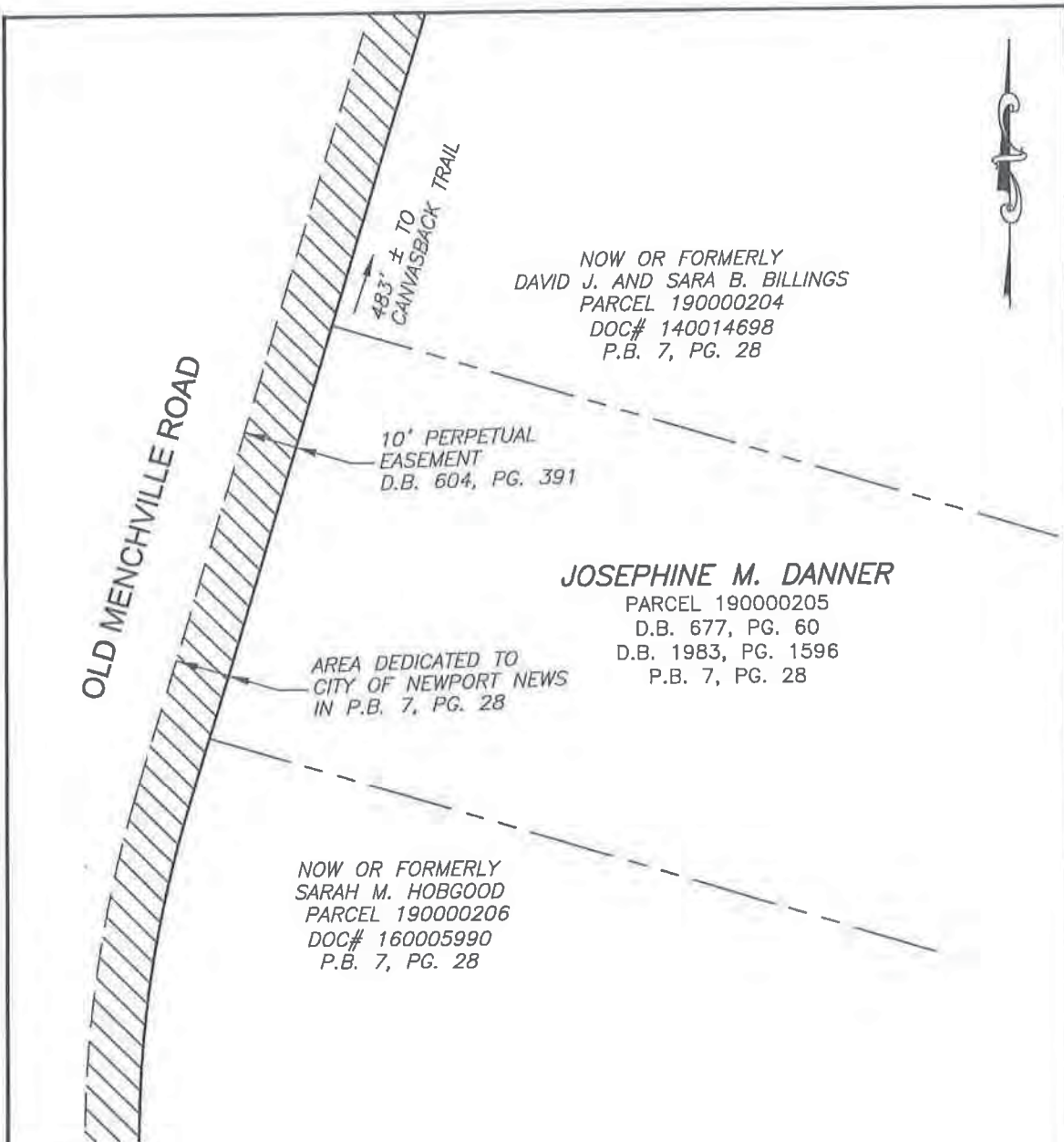
EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018

JMT PROJ. #17-10162-05A

SHEET 1 OF 1

CIP# JR011100



NOW OR FORMERLY
 DAVID J. AND SARA B. BILLINGS
 PARCEL 190000204
 DOC# 140014698
 P.B. 7, PG. 28

10' PERPETUAL
 EASEMENT
 D.B. 604, PG. 391

JOSEPHINE M. DANNER
 PARCEL 190000205
 D.B. 677, PG. 60
 D.B. 1983, PG. 1596
 P.B. 7, PG. 28

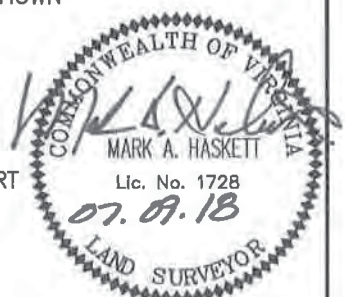
AREA DEDICATED TO
 CITY OF NEWPORT NEWS
 IN P.B. 7, PG. 28

NOW OR FORMERLY
 SARAH M. HOBGOOD
 PARCEL 190000206
 DOC# 160005990
 P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 604, PG. 391

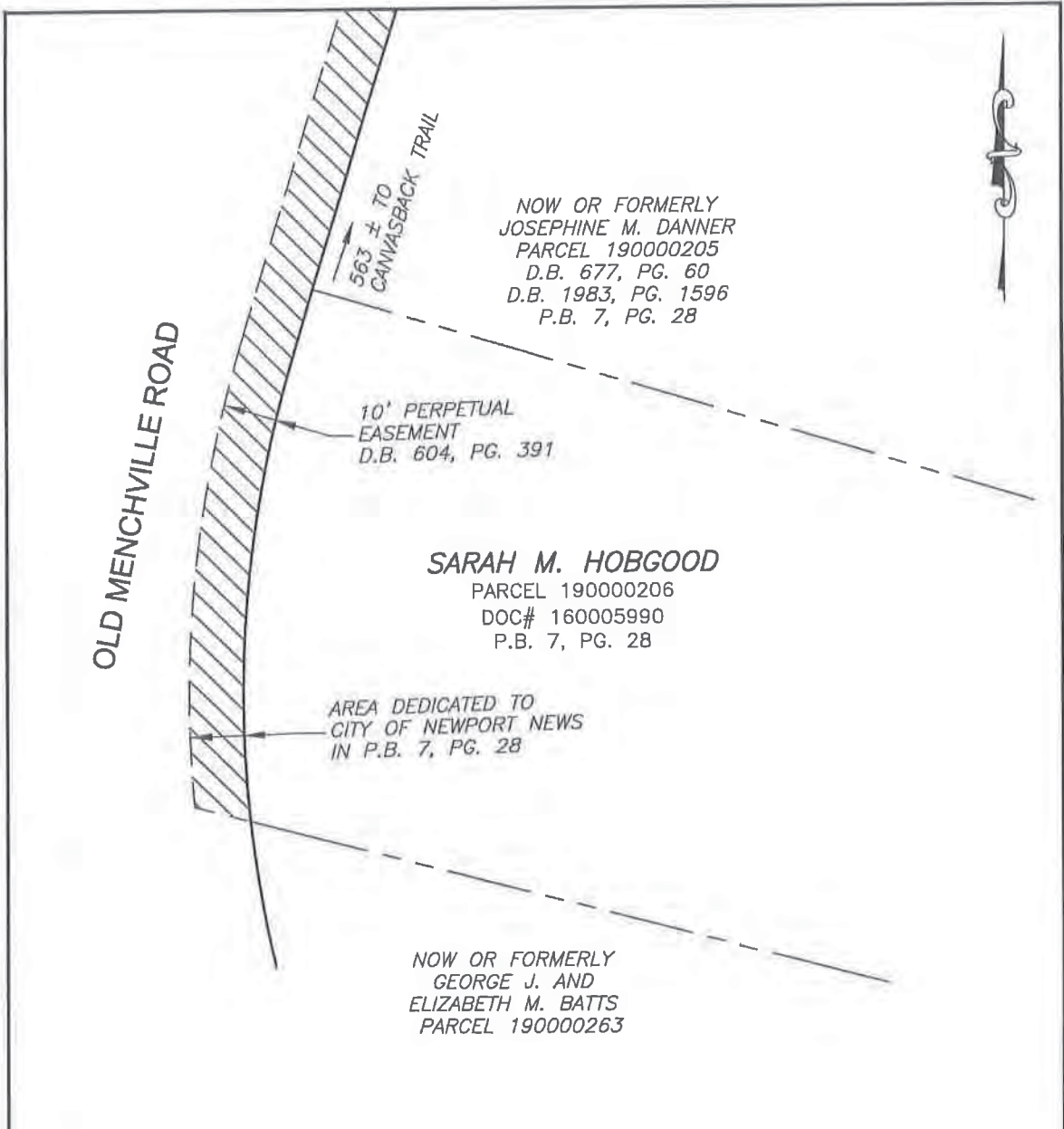
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.




JOHNSON, MIRMIRAN & THOMPSON
 Engineering A Brighter Future®
 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
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EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JUNE 25, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



NOW OR FORMERLY
 JOSEPHINE M. DANNER
 PARCEL 190000205
 D.B. 677, PG. 60
 D.B. 1983, PG. 1596
 P.B. 7, PG. 28

10' PERPETUAL
 EASEMENT
 D.B. 604, PG. 391

SARAH M. HOBGOOD
 PARCEL 190000206
 DOC# 160005990
 P.B. 7, PG. 28

AREA DEDICATED TO
 CITY OF NEWPORT NEWS
 IN P.B. 7, PG. 28

NOW OR FORMERLY
 GEORGE J. AND
 ELIZABETH M. BATTS
 PARCEL 190000263

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.

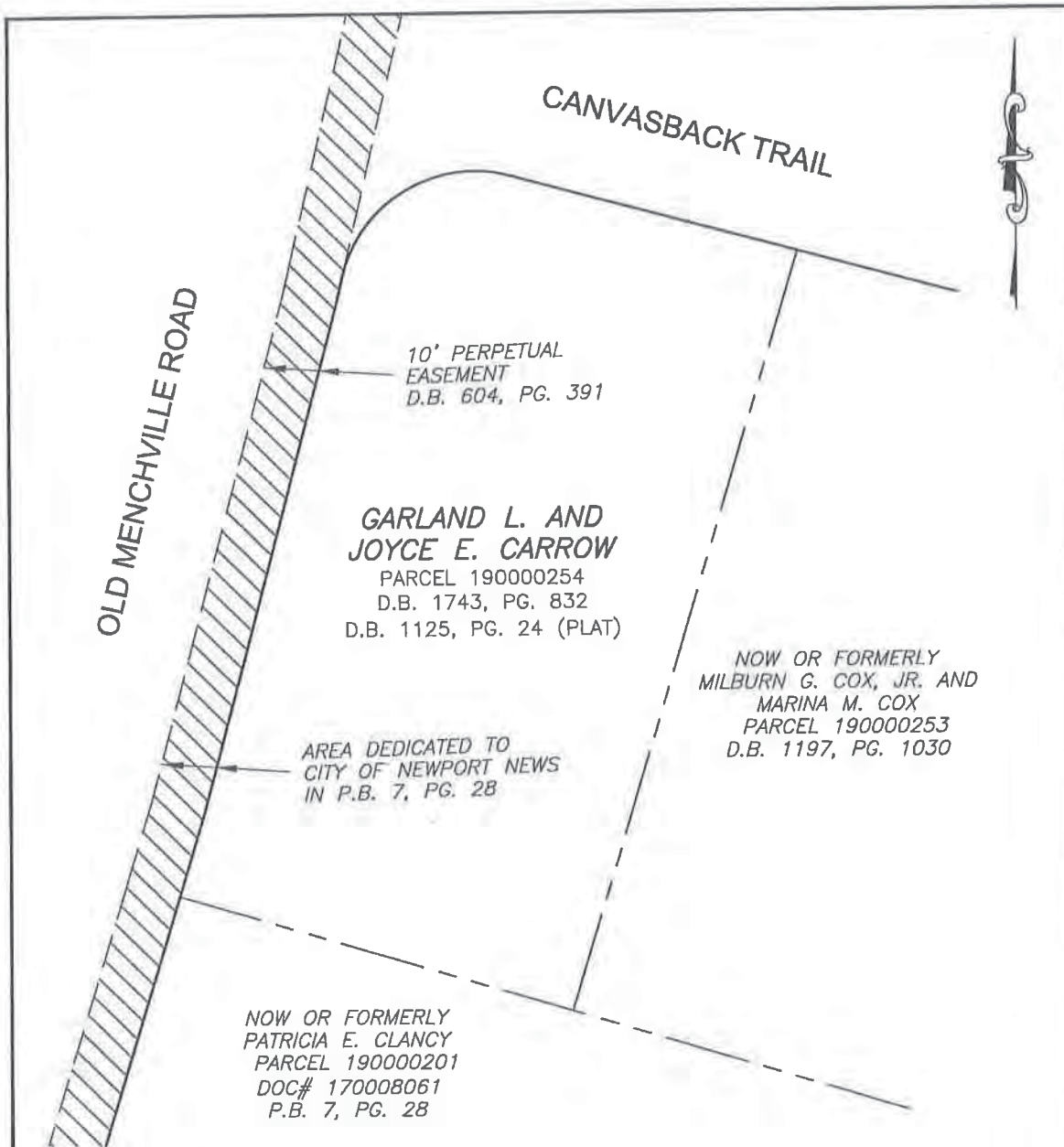



EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



JOHNSON, MIRMIRAN & THOMPSON
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 272 BENDIX ROAD, SUITE 260, VIRGINIA BEACH, VA, 23452
 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



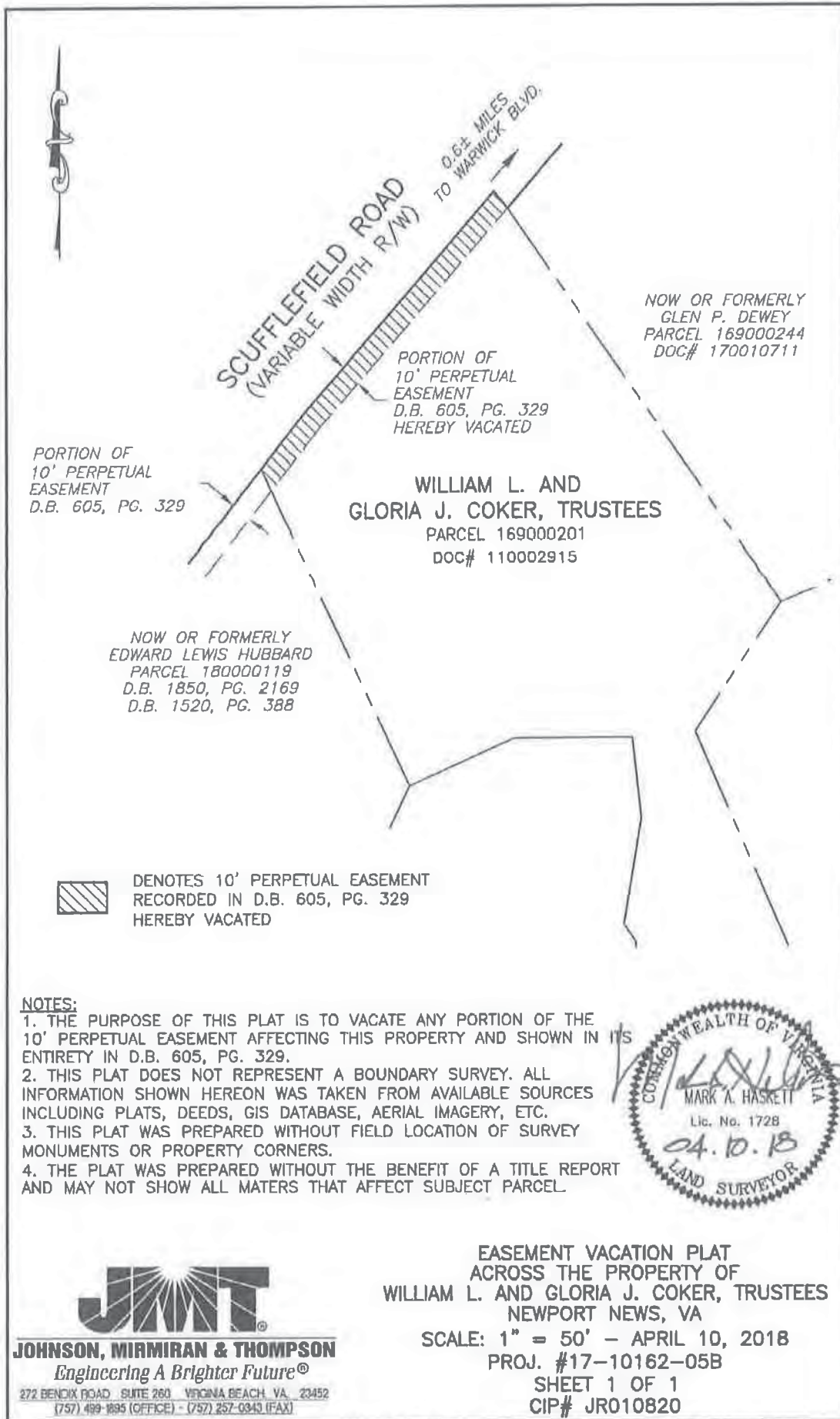
JOHNSON, MIRMIRAN & THOMPSON

Engineering A Brighter Future®

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(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR01100



NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 605, PG. 329.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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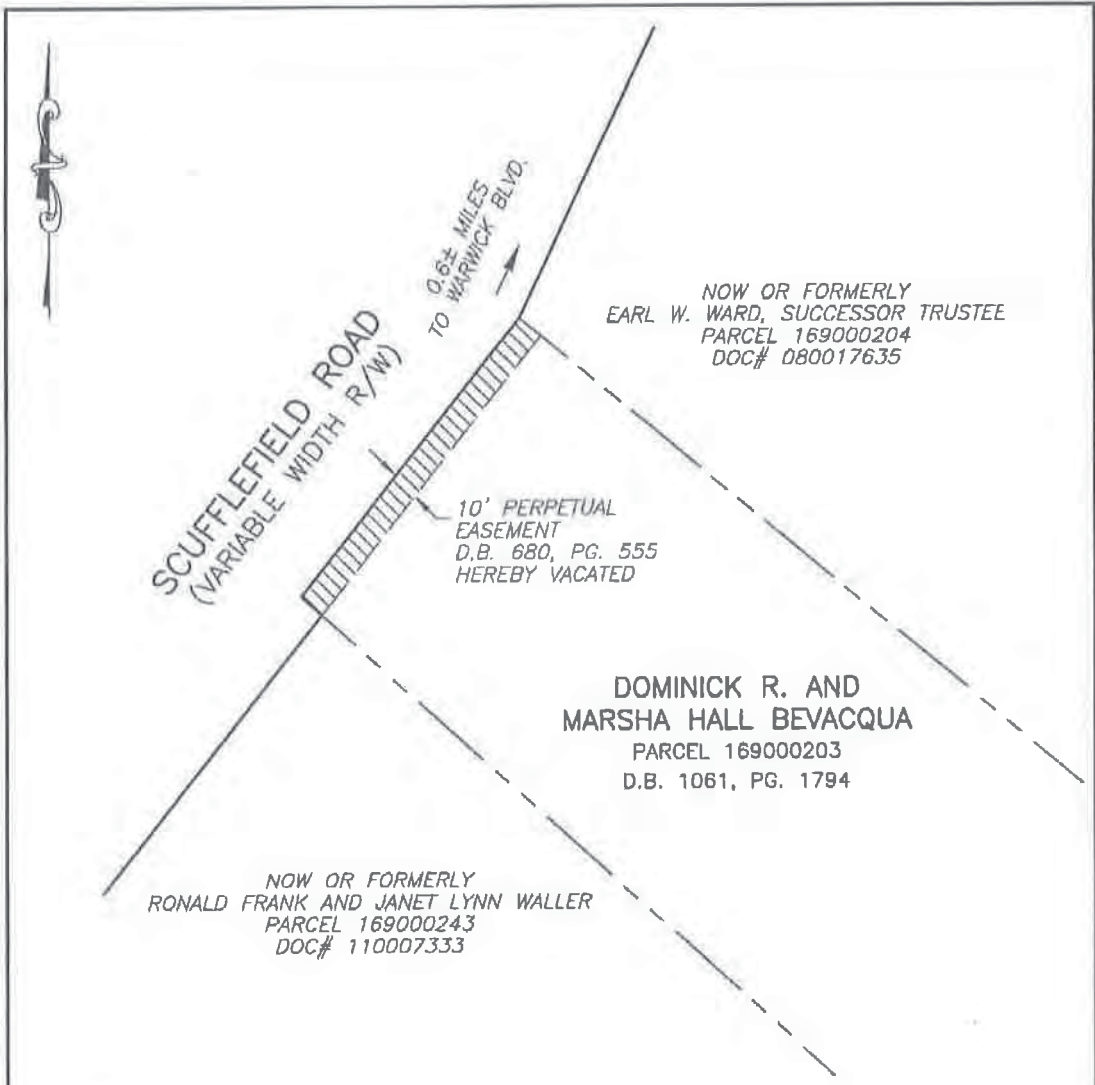
**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 WILLIAM L. AND GLORIA J. COKER, TRUSTEES
 NEWPORT NEWS, VA**

SCALE: 1" = 50' - APRIL 10, 2018

PROJ. #17-10162-05B

SHEET 1 OF 1

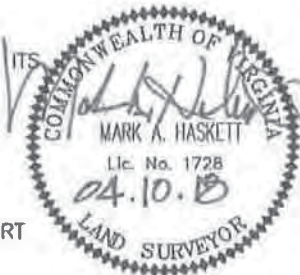
CIP# JR010820



DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 680, PG. 555
HEREBY VACATED

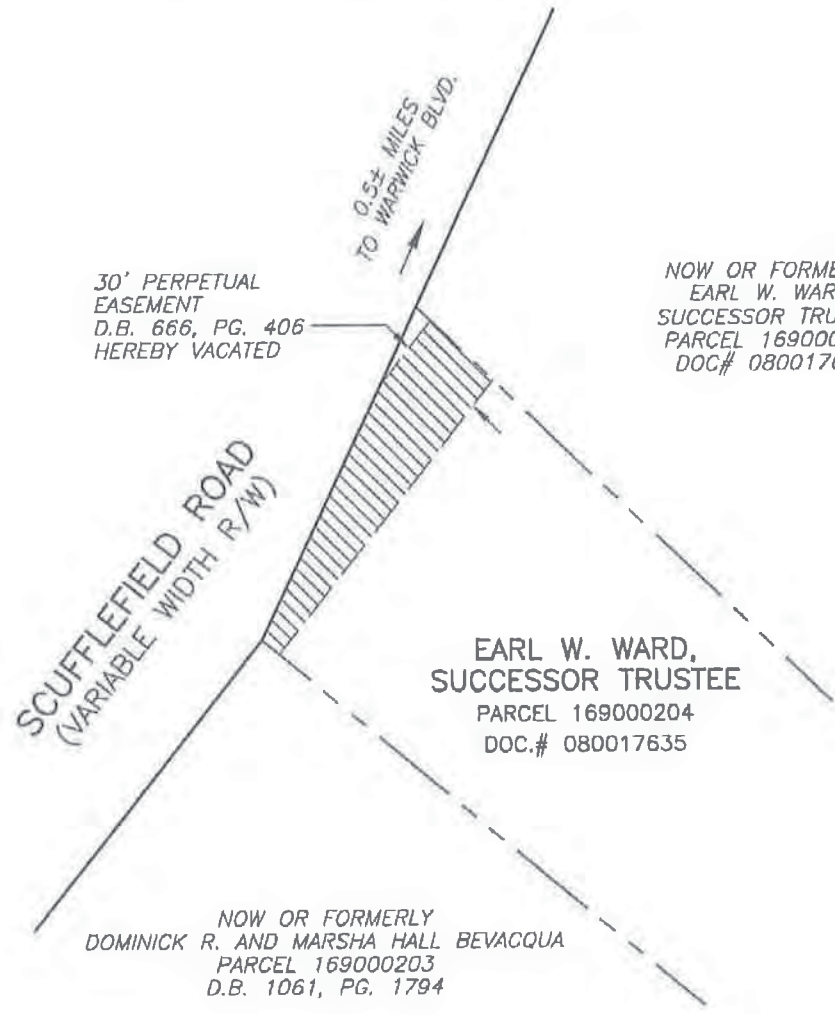
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 680, PG. 555.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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Engineering A Brighter Future®
 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 DOMINICK R. AND MARSHA HALL BEVACQUA
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 10, 2018
 PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



30' PERPETUAL EASEMENT
D.B. 666, PG. 406
HEREBY VACATED

NOW OR FORMERLY
EARL W. WARD,
SUCCESSOR TRUSTEE
PARCEL 169000205
DOC# 080017633

EARL W. WARD,
SUCCESSOR TRUSTEE
PARCEL 169000204
DOC.# 080017635

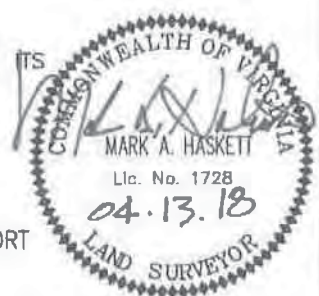
NOW OR FORMERLY
DOMINICK R. AND MARSHA HALL BEVACQUA
PARCEL 169000203
D.B. 1061, PG. 1794



DENOTES 30' PERPETUAL EASEMENT
RECORDED IN D.B. 666, PG. 406
HEREBY VACATED

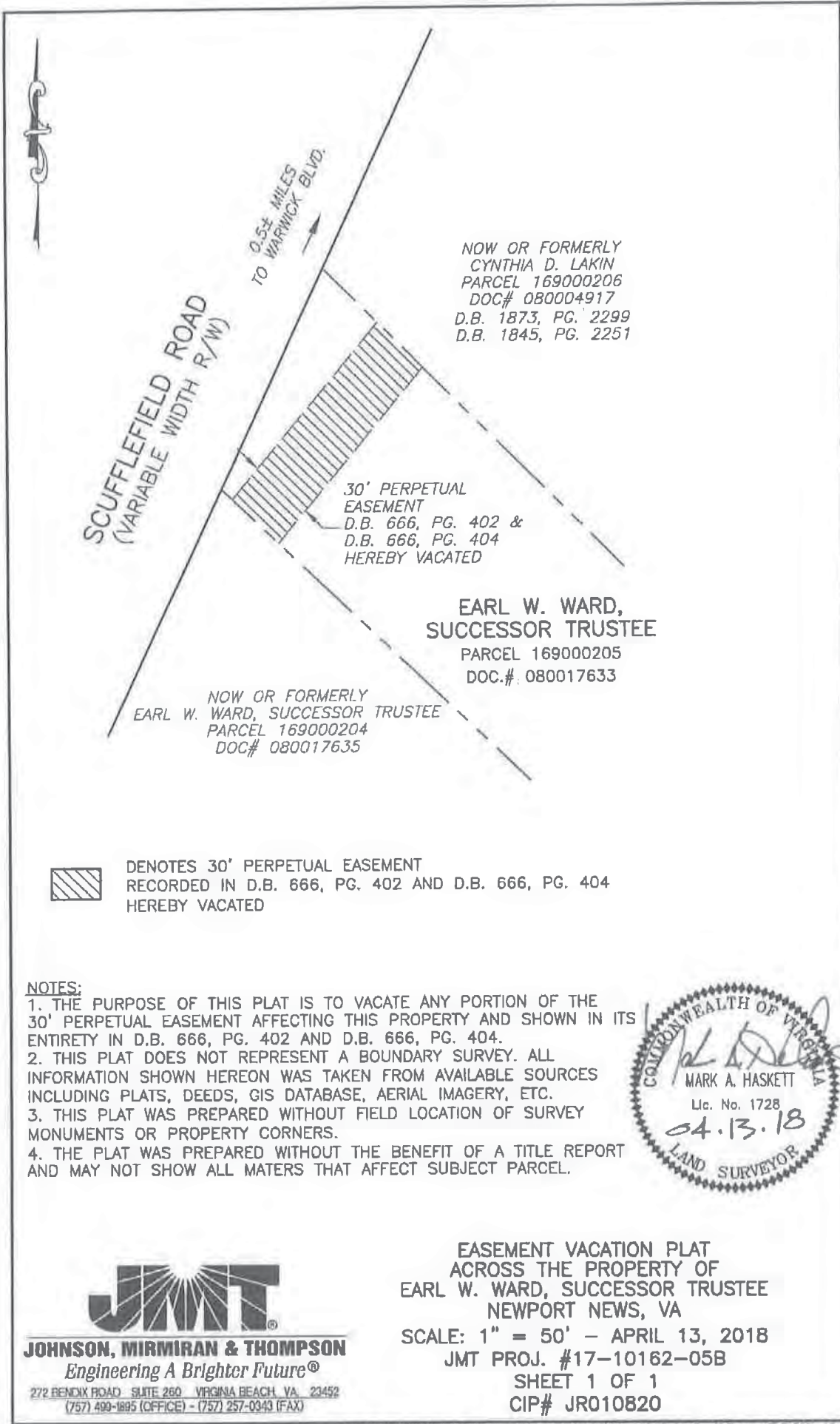
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 666, PG. 406.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EARL W. WARD, SUCCESSOR TRUSTEE
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820




NOW OR FORMERLY
CYNTHIA D. LAKIN
PARCEL 169000206
DOC# 080004917
D.B. 1873, PG. 2299
D.B. 1845, PG. 2251

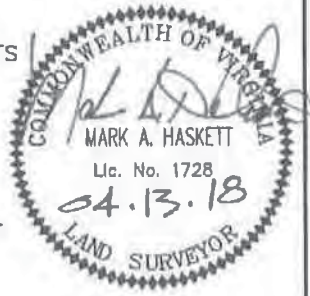
30' PERPETUAL
EASEMENT
D.B. 666, PG. 402 &
D.B. 666, PG. 404
HEREBY VACATED

EARL W. WARD,
SUCCESSOR TRUSTEE
PARCEL 169000205
DOC.#: 080017633

NOW OR FORMERLY
EARL W. WARD, SUCCESSOR TRUSTEE
PARCEL 169000204
DOC# 080017635

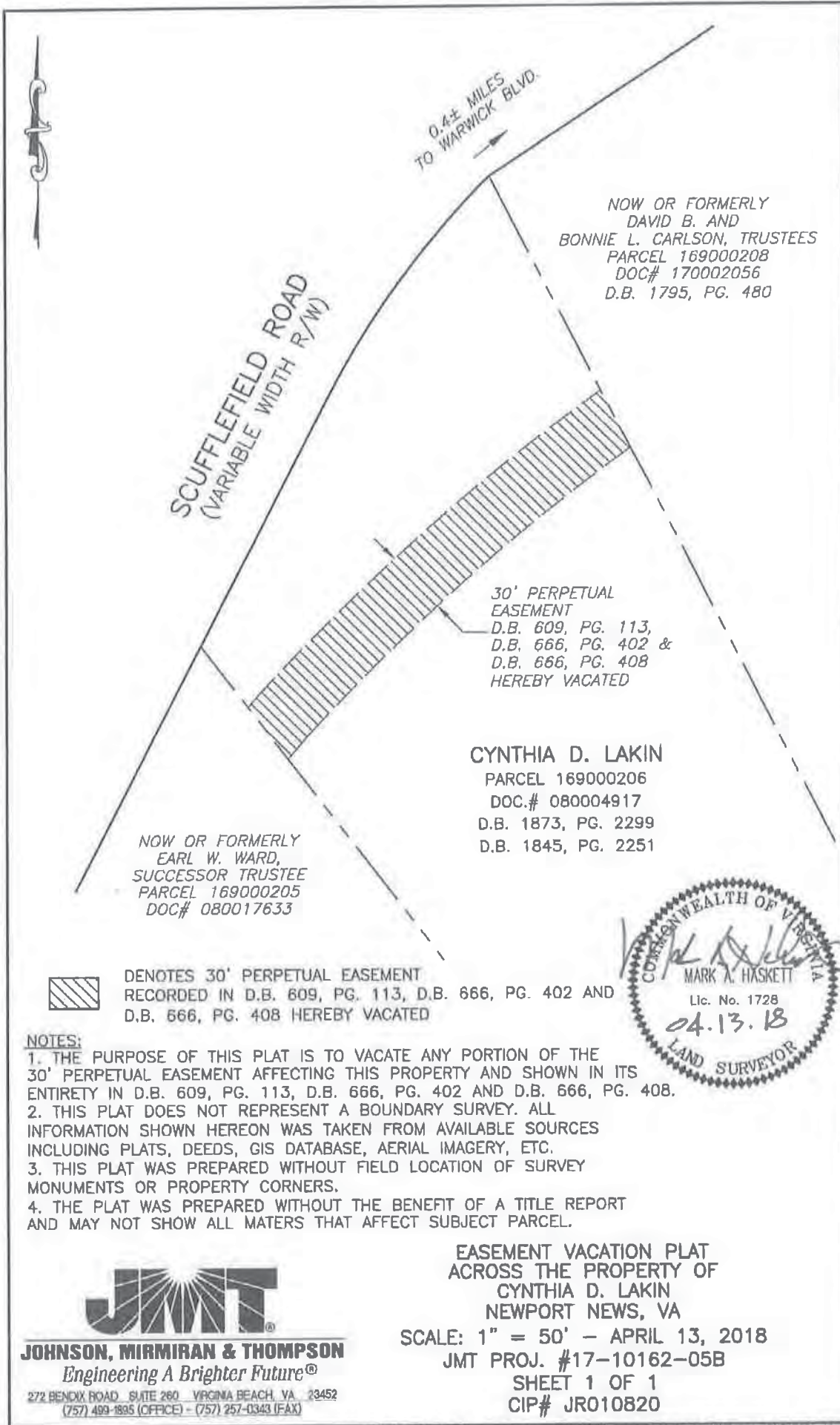
 DENOTES 30' PERPETUAL EASEMENT
RECORDED IN D.B. 666, PG. 402 AND D.B. 666, PG. 404
HEREBY VACATED

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 666, PG. 402 AND D.B. 666, PG. 404.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
 3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
 4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EARL W. WARD, SUCCESSOR TRUSTEE
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



NOW OR FORMERLY
 DAVID B. AND
 BONNIE L. CARLSON, TRUSTEES
 PARCEL 169000208
 DOC# 170002056
 D.B. 1795, PG. 480

SCUFFLEFIELD ROAD
 (VARIABLE WIDTH R/W)

30' PERPETUAL
 EASEMENT
 D.B. 609, PG. 113,
 D.B. 666, PG. 402 &
 D.B. 666, PG. 408
 HEREBY VACATED

CYNTHIA D. LAKIN
 PARCEL 169000206
 DOC.# 080004917
 D.B. 1873, PG. 2299
 D.B. 1845, PG. 2251

NOW OR FORMERLY
 EARL W. WARD,
 SUCCESSOR TRUSTEE
 PARCEL 169000205
 DOC# 080017633



DENOTES 30' PERPETUAL EASEMENT
 RECORDED IN D.B. 609, PG. 113, D.B. 666, PG. 402 AND
 D.B. 666, PG. 408 HEREBY VACATED



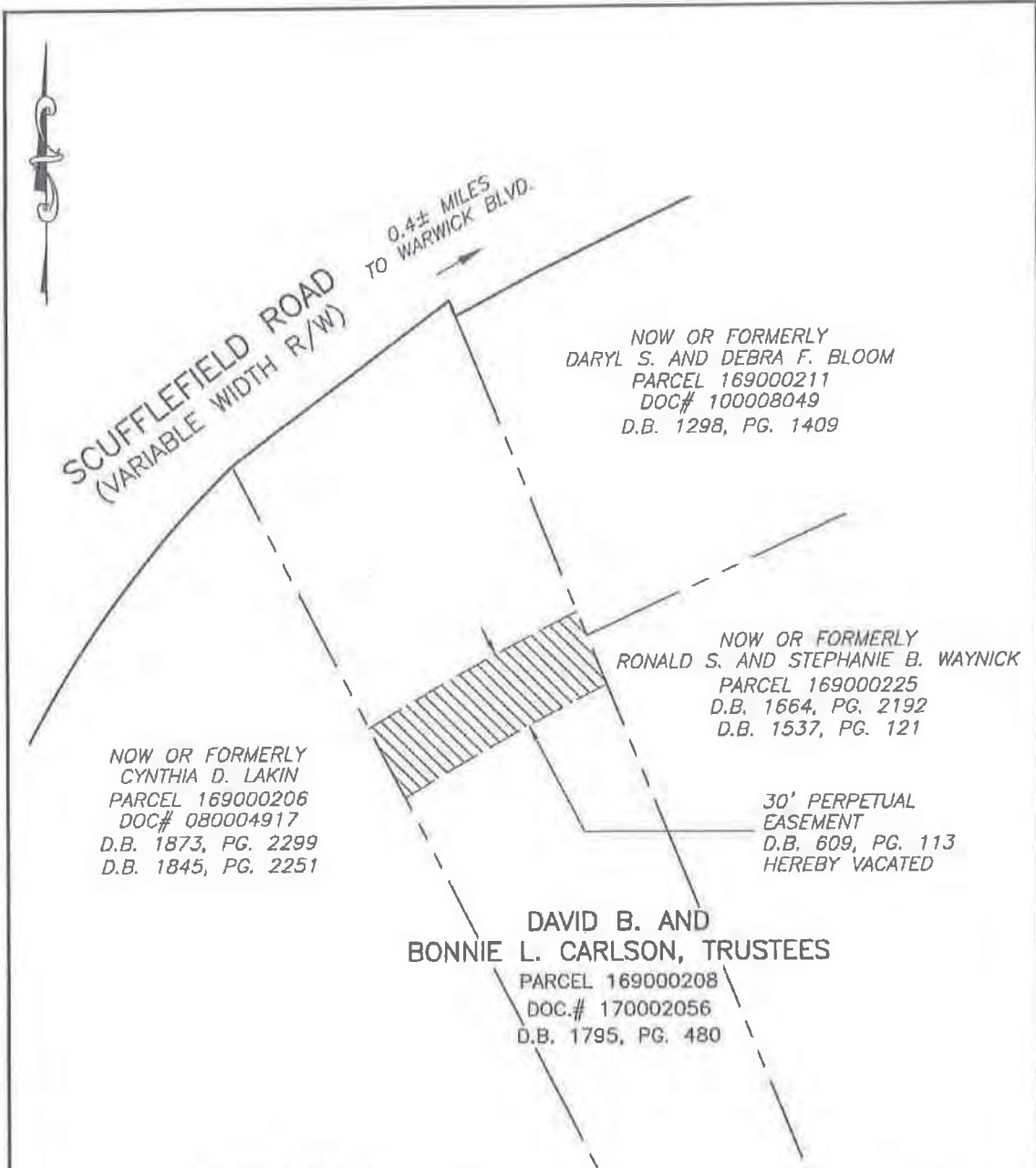
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 609, PG. 113, D.B. 666, PG. 402 AND D.B. 666, PG. 408.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 CYNTHIA D. LAKIN
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



 DENOTES 30' PERPETUAL EASEMENT
RECORDED IN D.B. 609, PG. 311
HEREBY VACATED

NOTES:

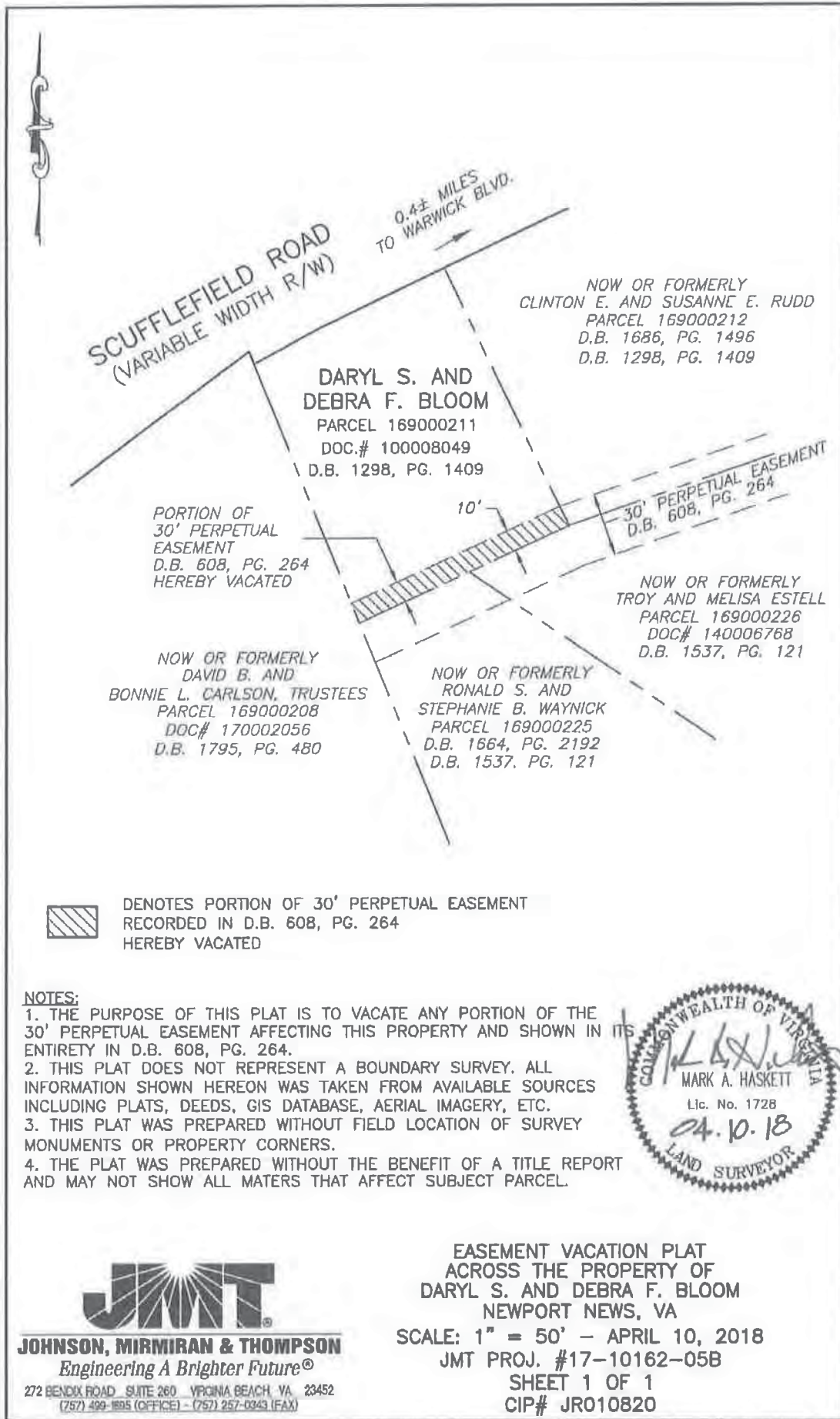
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 609, PG. 113.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.

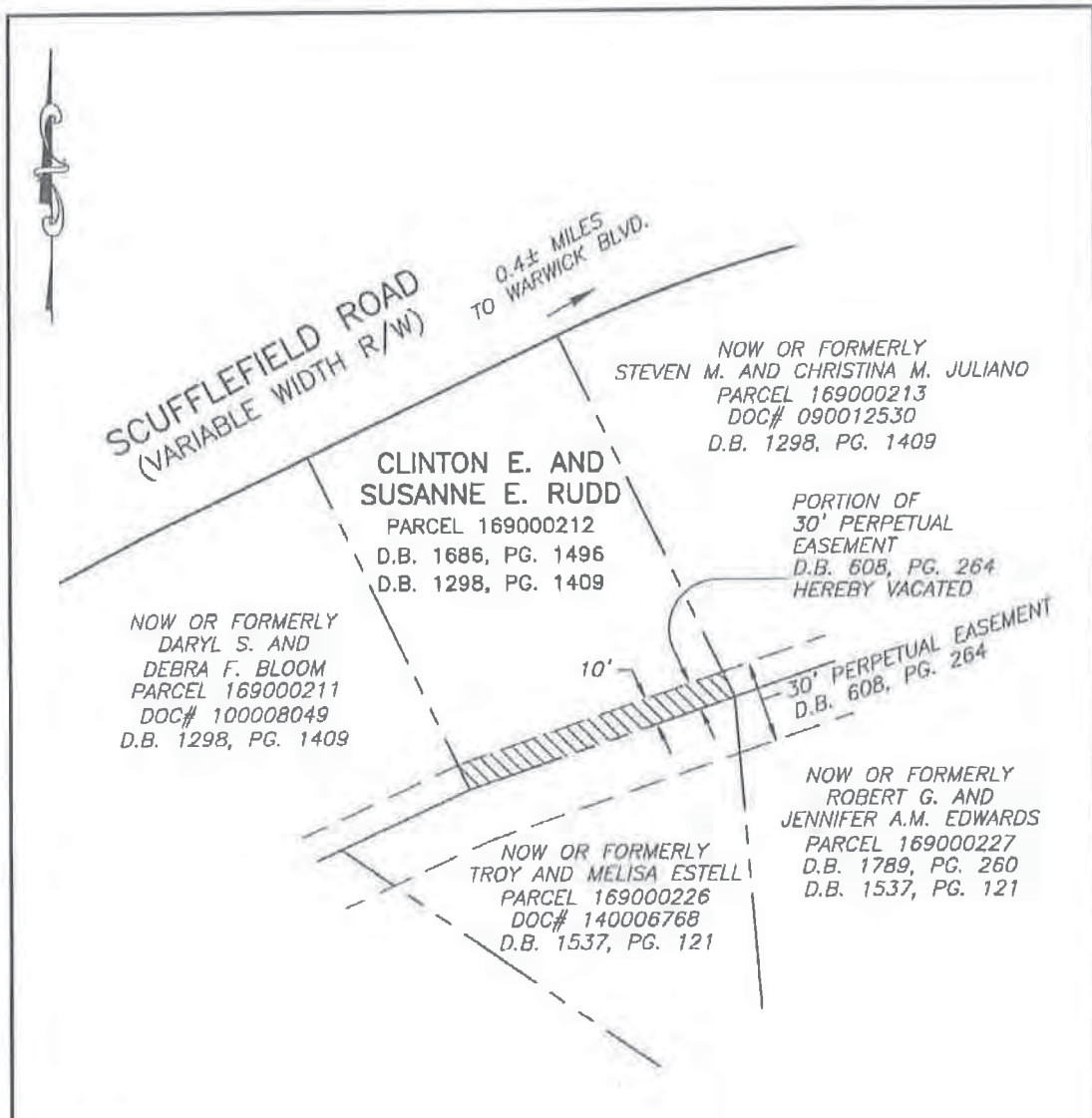



**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
DAVID B. AND BONNIE L. CARLSON, TRUSTEES
NEWPORT NEWS, VA**

SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820

JMT
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272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

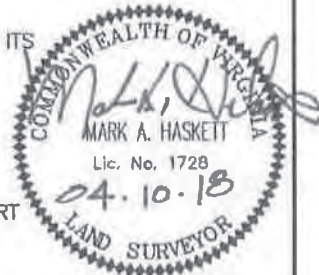




 DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 264 HEREBY VACATED

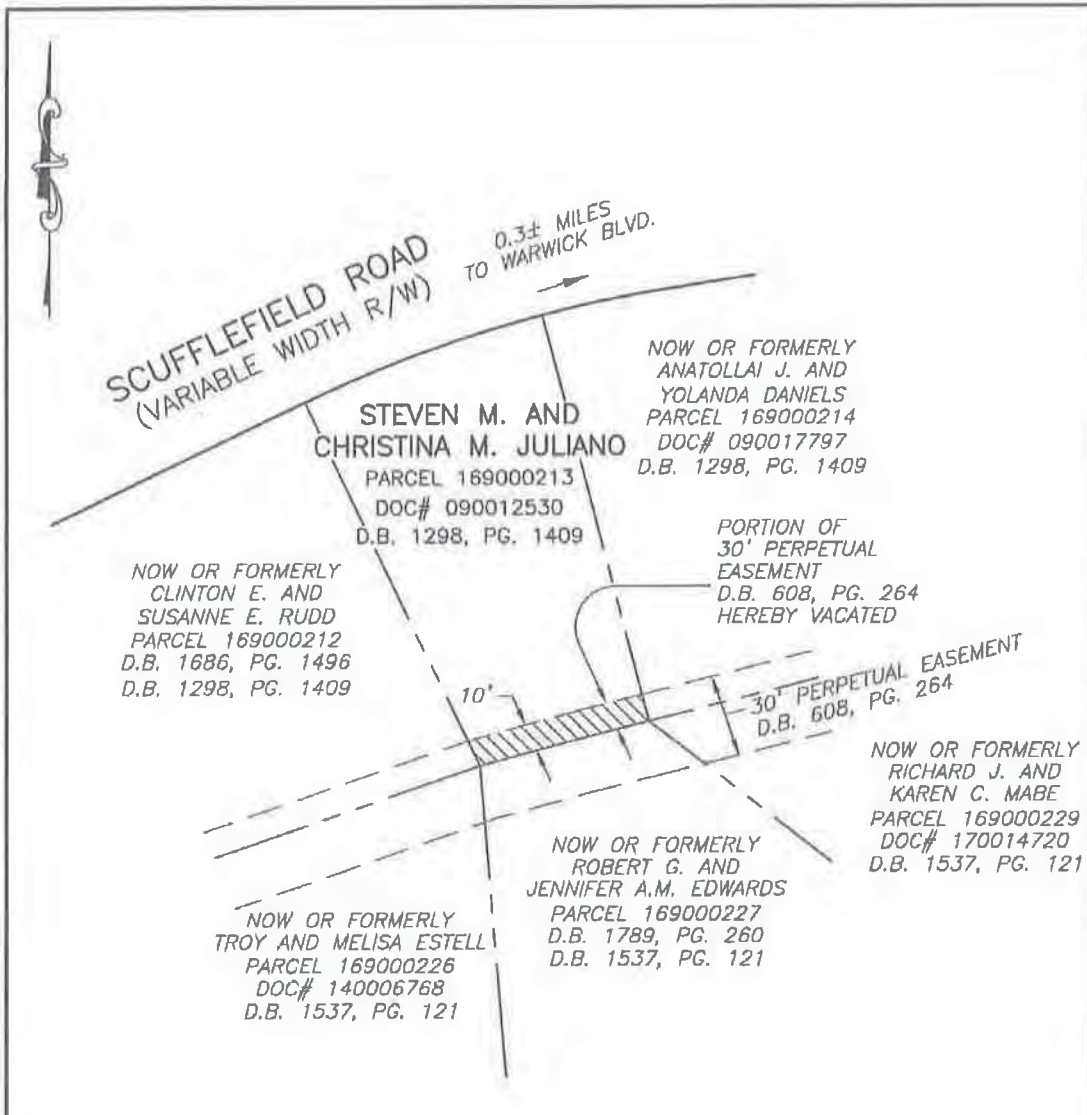
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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 272 BENDIX ROAD, SUITE 260, VIRGINIA BEACH, VA 23452
 (757) 499-8885 (OFFICE) - (757) 257-0343 (FAX)

**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 CLINTON E. AND SUSANNE E. RUDD
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

0.3± MILES
TO WARWICK BLVD.

NOW OR FORMERLY
ANATOLLAJ J. AND
YOLANDA DANIELS
PARCEL 169000214
DOC# 090017797
D.B. 1298, PG. 1409

STEVEN M. AND
CHRISTINA M. JULIANO
PARCEL 169000213
DOC# 090012530
D.B. 1298, PG. 1409

NOW OR FORMERLY
CLINTON E. AND
SUSANNE E. RUDD
PARCEL 169000212
D.B. 1686, PG. 1496
D.B. 1298, PG. 1409


PORTION OF
30' PERPETUAL
EASEMENT
D.B. 608, PG. 264
HEREBY VACATED

30' PERPETUAL EASEMENT
D.B. 608, PG. 264

NOW OR FORMERLY
RICHARD J. AND
KAREN C. MABE
PARCEL 169000229
DOC# 170014720
D.B. 1537, PG. 121

NOW OR FORMERLY
ROBERT G. AND
JENNIFER A.M. EDWARDS
PARCEL 169000227
D.B. 1789, PG. 260
D.B. 1537, PG. 121

NOW OR FORMERLY
TROY AND MELISA ESTELL
PARCEL 169000226
DOC# 140006768
D.B. 1537, PG. 121

 DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

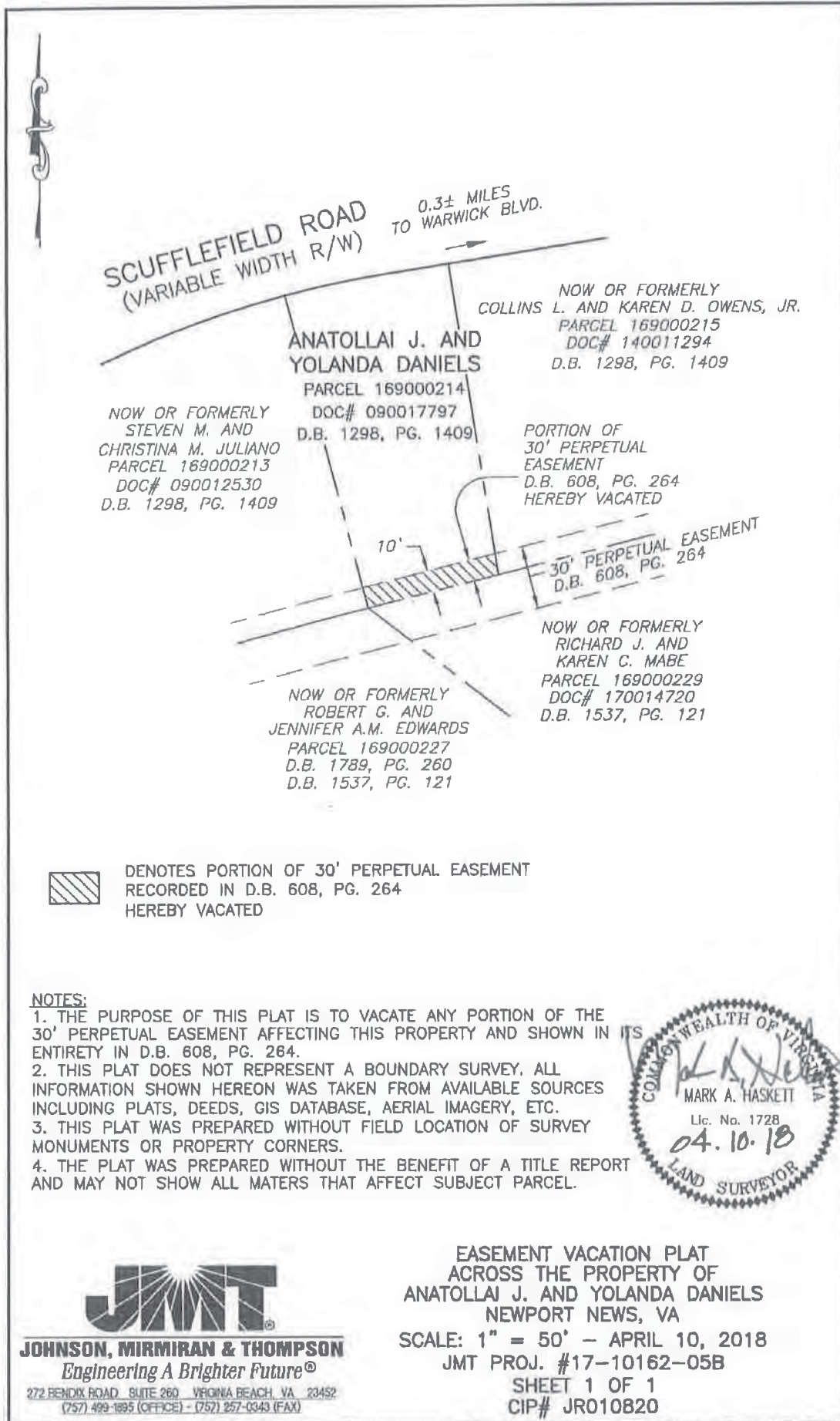
- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 264.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
 3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
 4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 STEVEN M. AND CHRISTINA M. JULIANO
 NEWPORT NEWS, VA**

SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

0.3± MILES
TO WARWICK BLVD.

NOW OR FORMERLY
STEVEN M. AND
CHRISTINA M. JULIANO
PARCEL 169000213
DOC# 090012530
D.B. 1298, PG. 1409

ANATOLLAJ J. AND
YOLANDA DANIELS
PARCEL 169000214
DOC# 090017797
D.B. 1298, PG. 1409

NOW OR FORMERLY
COLLINS L. AND KAREN D. OWENS, JR.
PARCEL 169000215
DOC# 140011294
D.B. 1298, PG. 1409

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 608, PG. 264
HEREBY VACATED

NOW OR FORMERLY
ROBERT G. AND
JENNIFER A.M. EDWARDS
PARCEL 169000227
D.B. 1789, PG. 260
D.B. 1537, PG. 121

NOW OR FORMERLY
RICHARD J. AND
KAREN C. MABE
PARCEL 169000229
DOC# 170014720
D.B. 1537, PG. 121



DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
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4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.

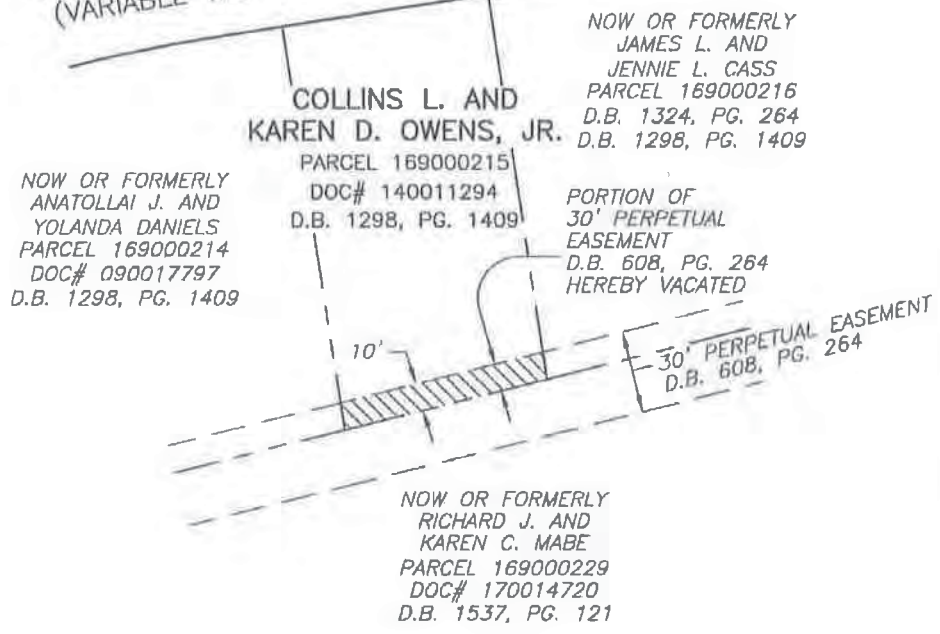



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Engineering A Brighter Future®
272 BENDIX ROAD, SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
ANATOLLAJ J. AND YOLANDA DANIELS
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 10, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



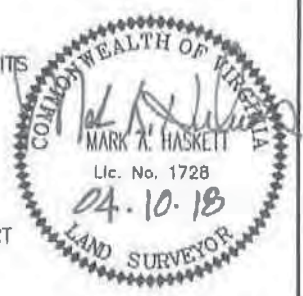
SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W) 0.3± MILES TO WARWICK BLVD.



 DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
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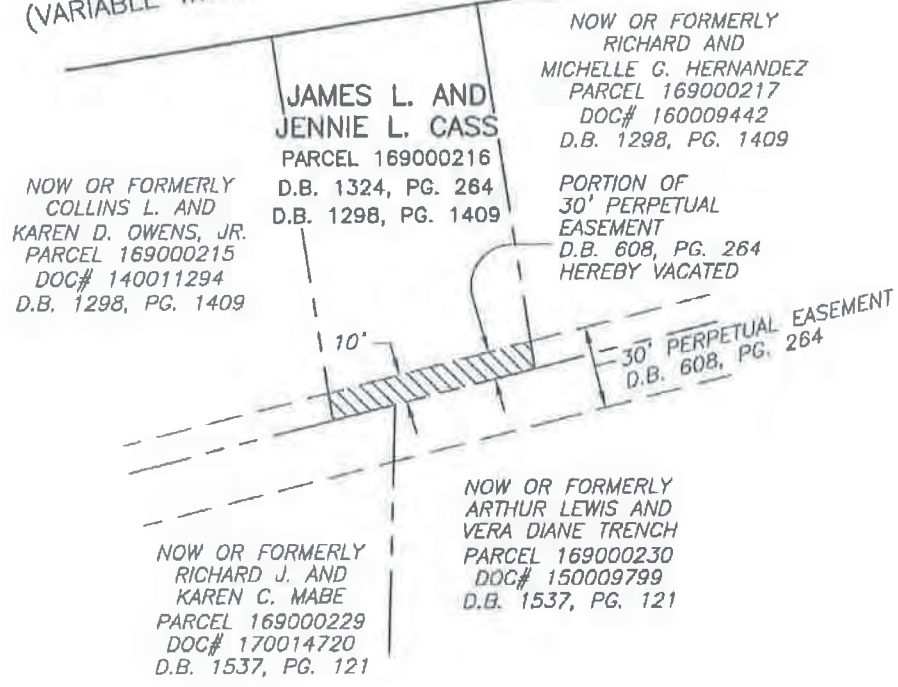
JMT
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Engineering A Brighter Future®
272 BENDIX ROAD SUITE 200 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)


EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
COLLINS L. AND KAREN D. OWENS, JR.
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 10, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

0.3± MILES
TO WARWICK BLVD.



 DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
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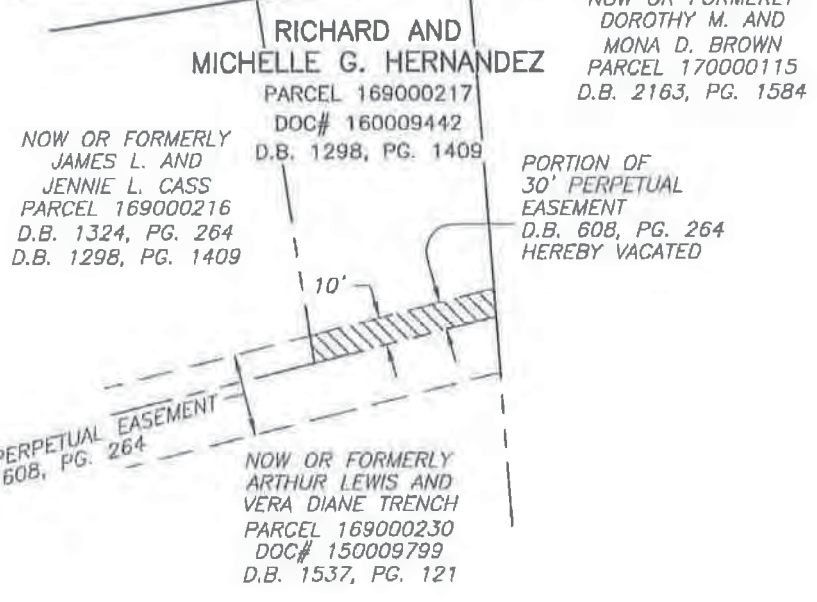
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)


**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
JAMES L. AND JENNIE L. CASS
NEWPORT NEWS, VA**
SCALE: 1" = 50' - APRIL 10, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

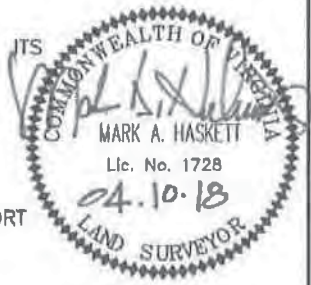
0.3± MILES
TO WARWICK BLVD.



 DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

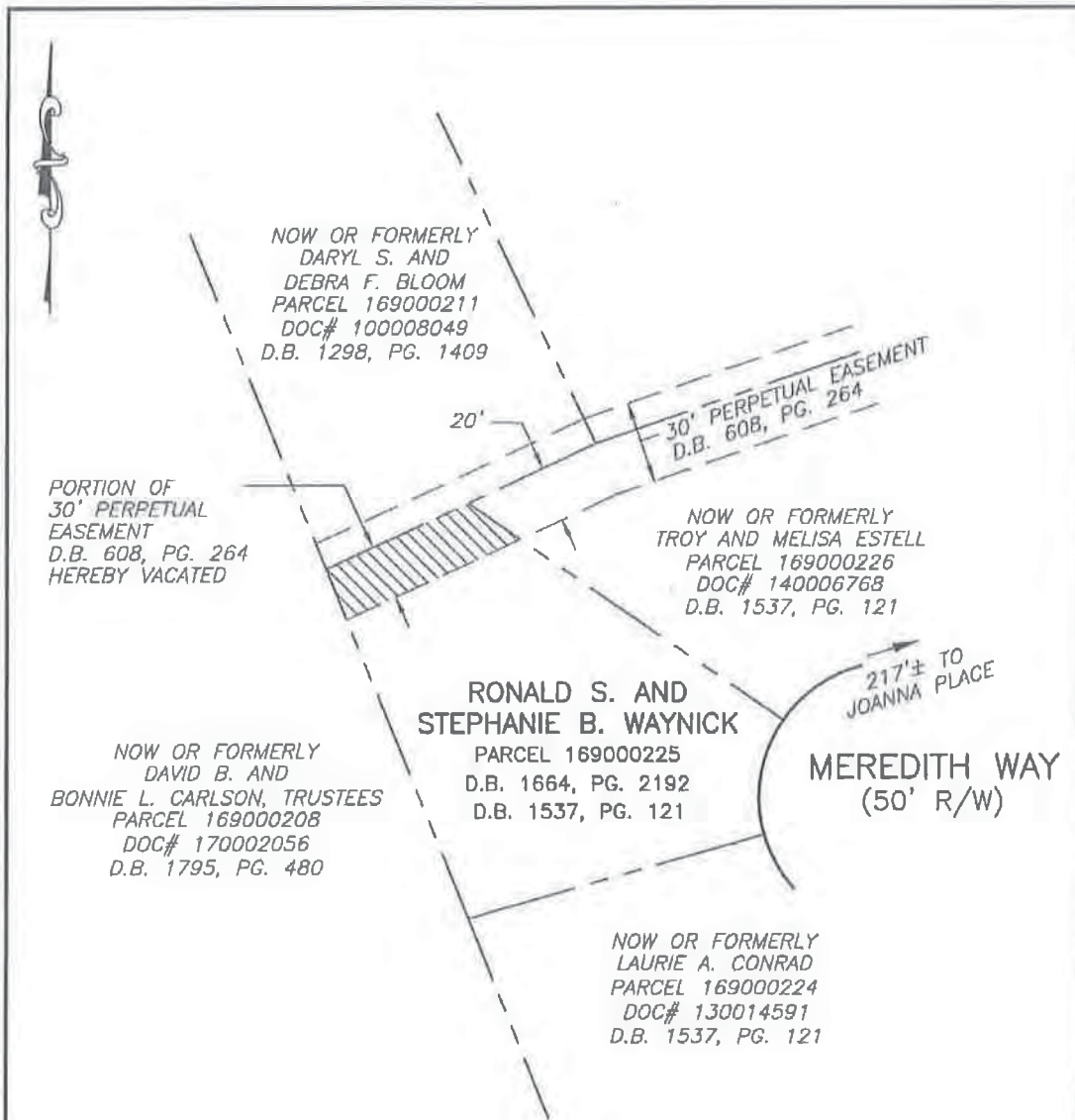
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 280 VIRGINIA BEACH, VA 23452
(757) 499-1805 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
RICHARD AND MICHELLE G. HERNANDEZ
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 10, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



 DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 264
HEREBY VACATED

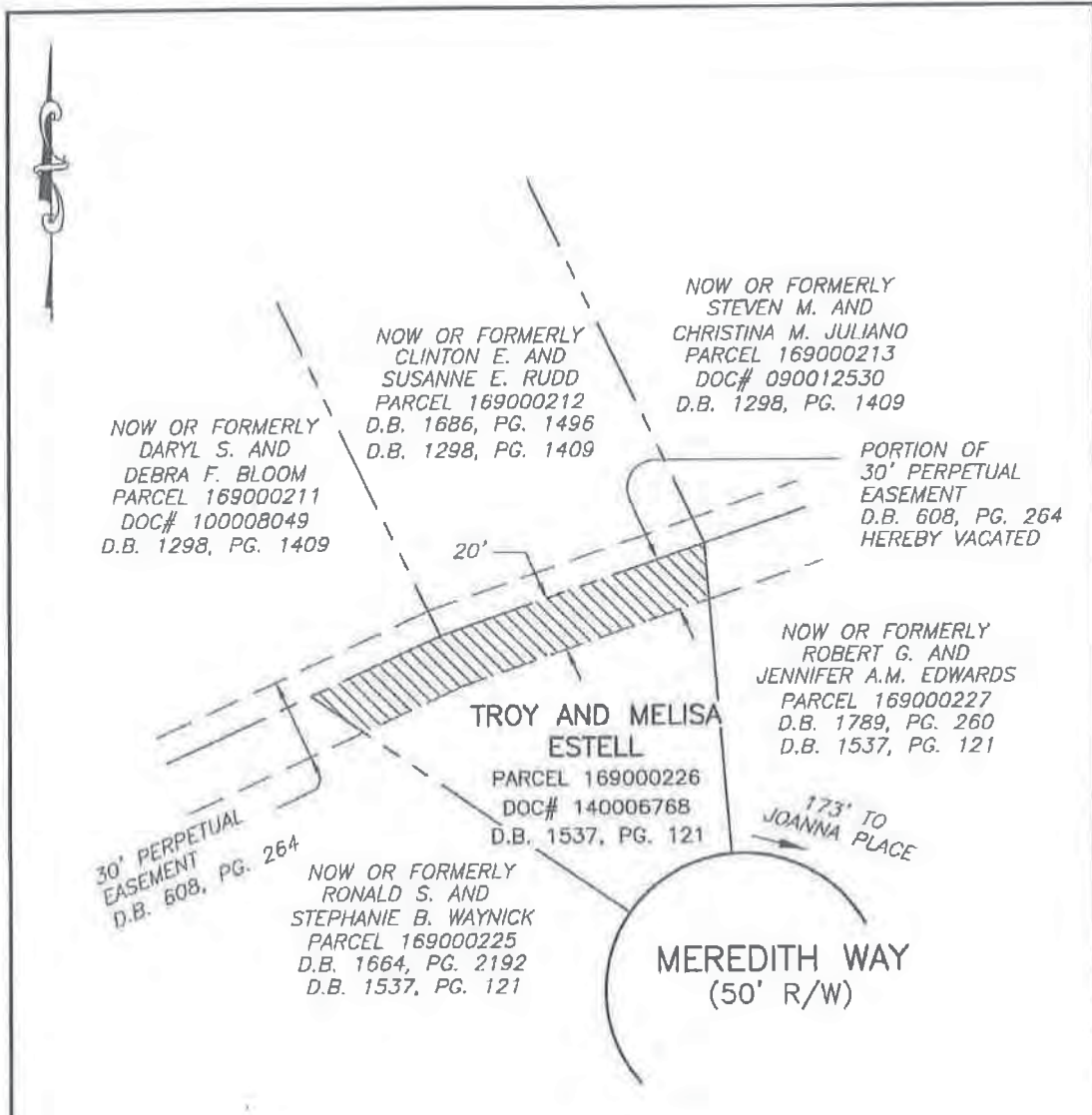
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23462
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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 RONALD S. AND STEPHANIE B. WAYNICK
 NEWPORT NEWS, VA
 SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



 DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 264 HEREBY VACATED

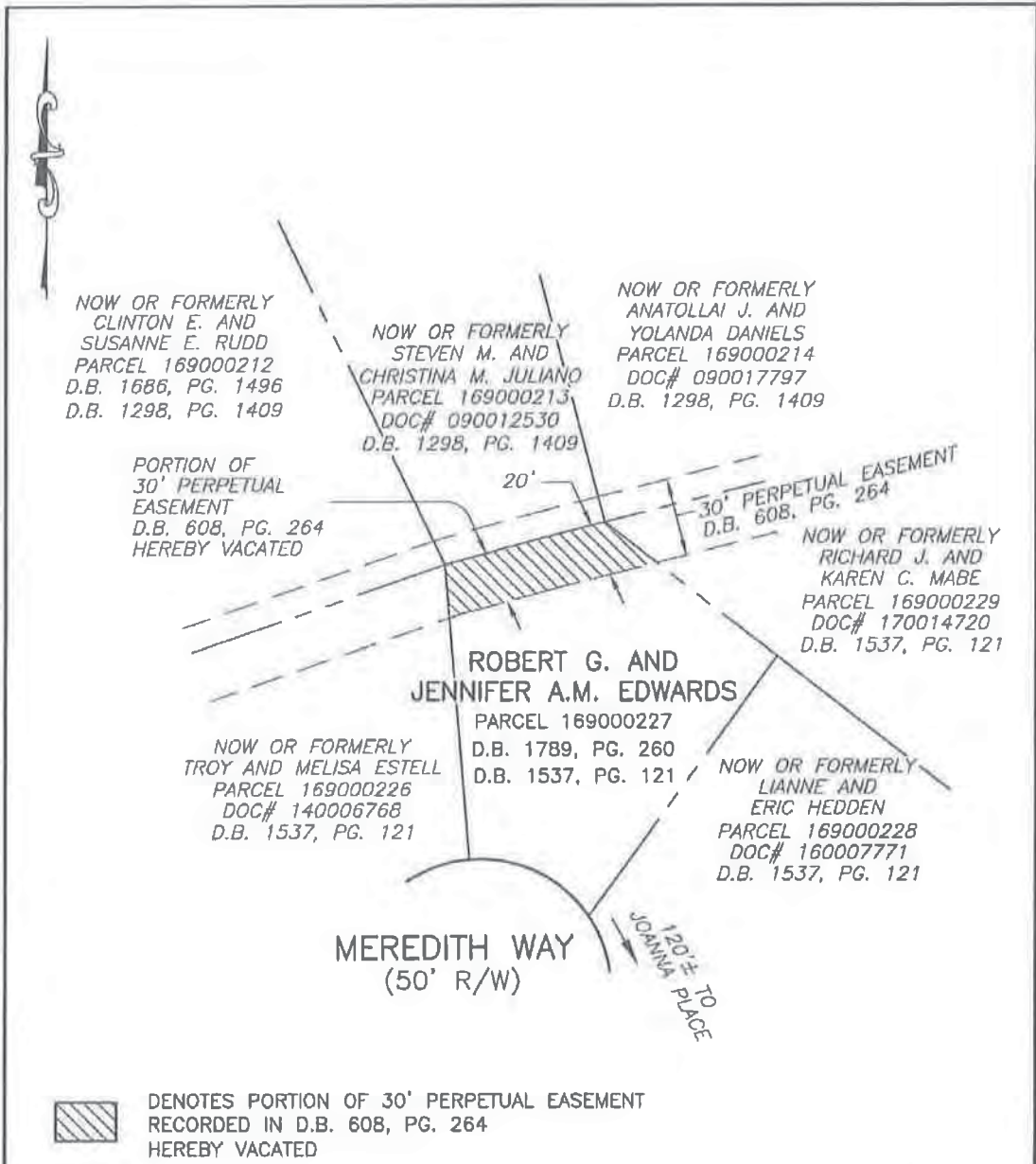
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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 (757) 499-8895 (OFFICE) - (757) 257-0343 (FAX)

**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 TROY AND MELISA ESTELL
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



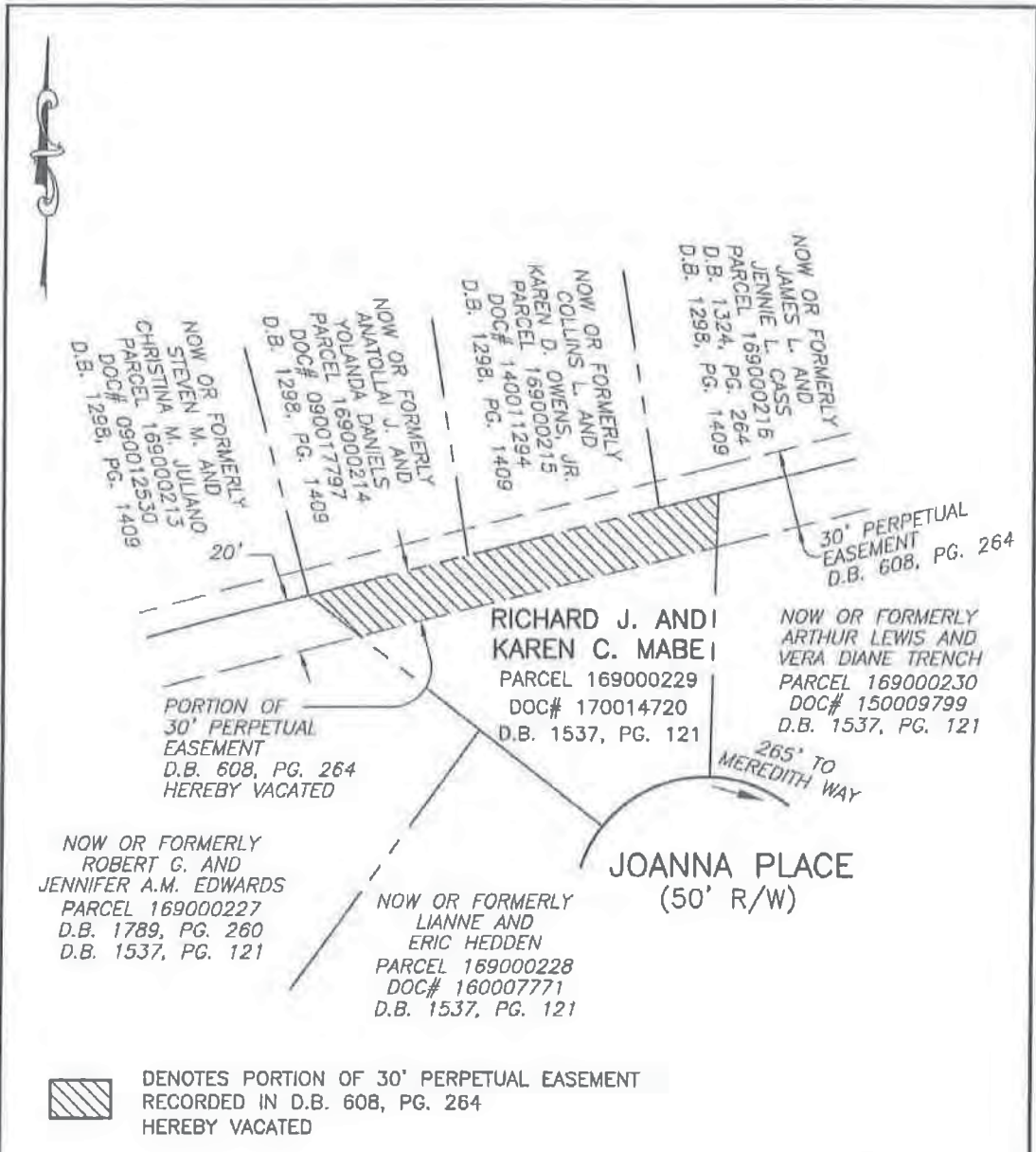
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



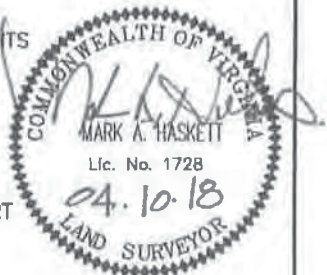
JMT
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD, SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1995 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
ROBERT G. AND JENNIFER A.M. EDWARDS
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 10, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



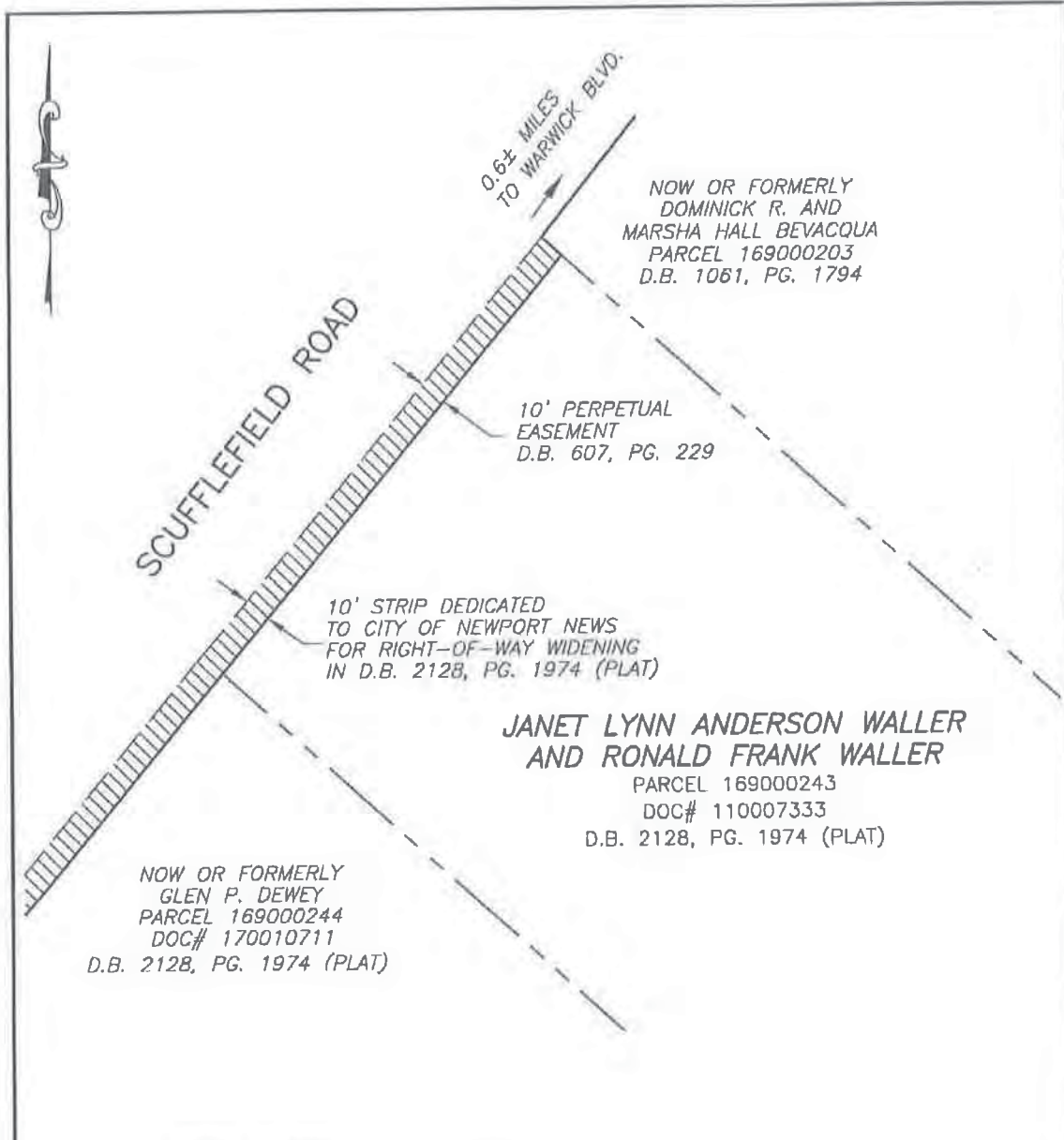
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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 272 BENDIX ROAD SUITE 200 VIRGINIA BEACH, VA 23452
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**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 RICHARD J. AND KAREN C. MABE
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820




NOW OR FORMERLY
 GLEN P. DEWEY
 PARCEL 169000244
 DOC# 170010711
 D.B. 2128, PG. 1974 (PLAT)

NOW OR FORMERLY
 DOMINICK R. AND
 MARSHA HALL BEVACQUA
 PARCEL 169000203
 D.B. 1061, PG. 1794

10' PERPETUAL
 EASEMENT
 D.B. 607, PG. 229

10' STRIP DEDICATED
 TO CITY OF NEWPORT NEWS
 FOR RIGHT-OF-WAY WIDENING
 IN D.B. 2128, PG. 1974 (PLAT)

**JANET LYNN ANDERSON WALLER
 AND RONALD FRANK WALLER**
 PARCEL 169000243
 DOC# 110007333
 D.B. 2128, PG. 1974 (PLAT)

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 607, PG. 229

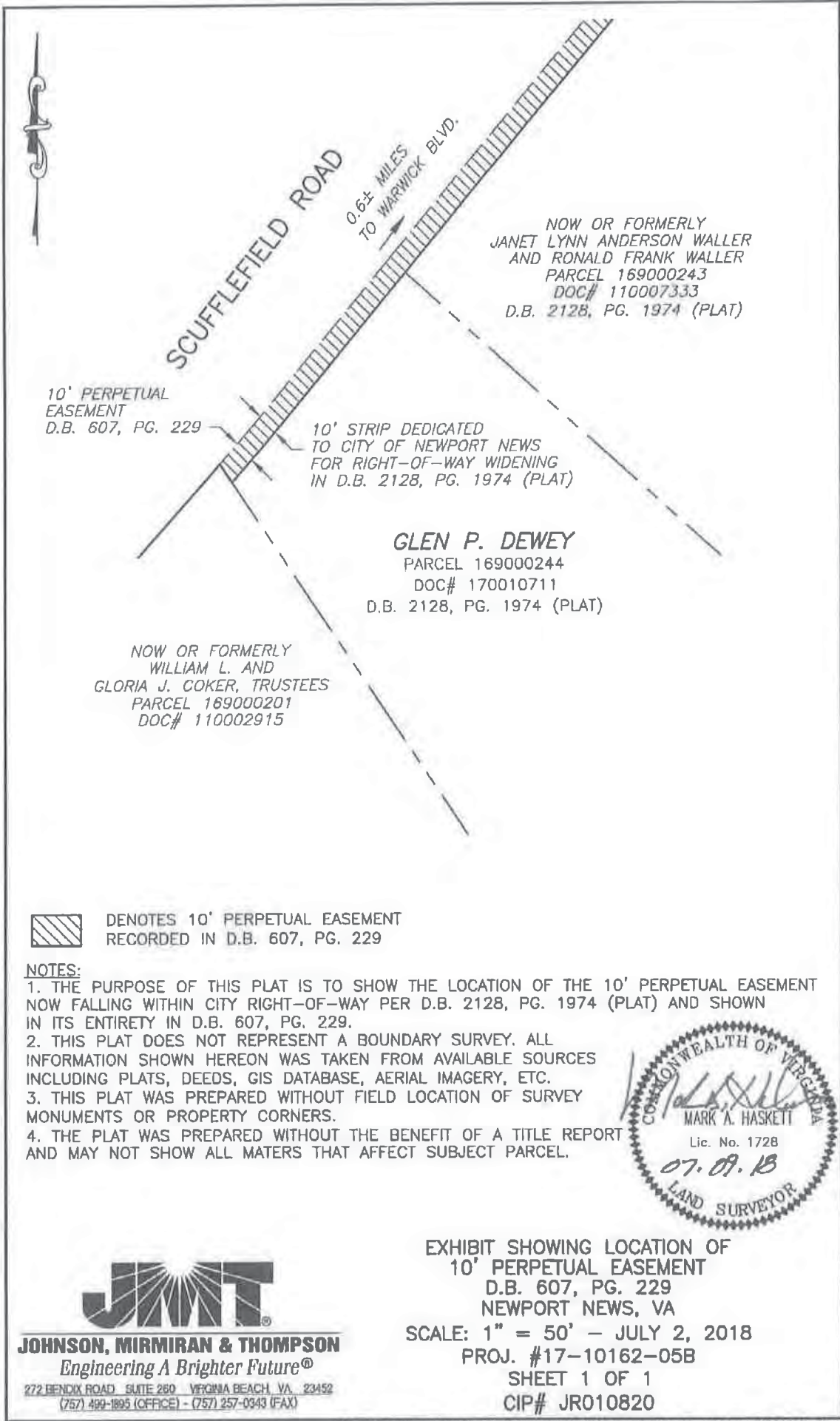
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER D.B. 2128, PG. 1974 (PLAT) AND SHOWN IN ITS ENTIRETY IN D.B. 607, PG. 229.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 607, PG. 229
 NEWPORT NEWS, VA
 SCALE: 1" = 50' - JULY 2, 2018
 PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820




10' PERPETUAL
EASEMENT
D.B. 607, PG. 229

10' STRIP DEDICATED
TO CITY OF NEWPORT NEWS
FOR RIGHT-OF-WAY WIDENING
IN D.B. 2128, PG. 1974 (PLAT)

NOW OR FORMERLY
JANET LYNN ANDERSON WALLER
AND RONALD FRANK WALLER
PARCEL 169000243
DOC# 110007333
D.B. 2128, PG. 1974 (PLAT)

GLEN P. DEWEY
PARCEL 169000244
DOC# 170010711
D.B. 2128, PG. 1974 (PLAT)

NOW OR FORMERLY
WILLIAM L. AND
GLORIA J. COKER, TRUSTEES
PARCEL 169000201
DOC# 110002915

 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 607, PG. 229

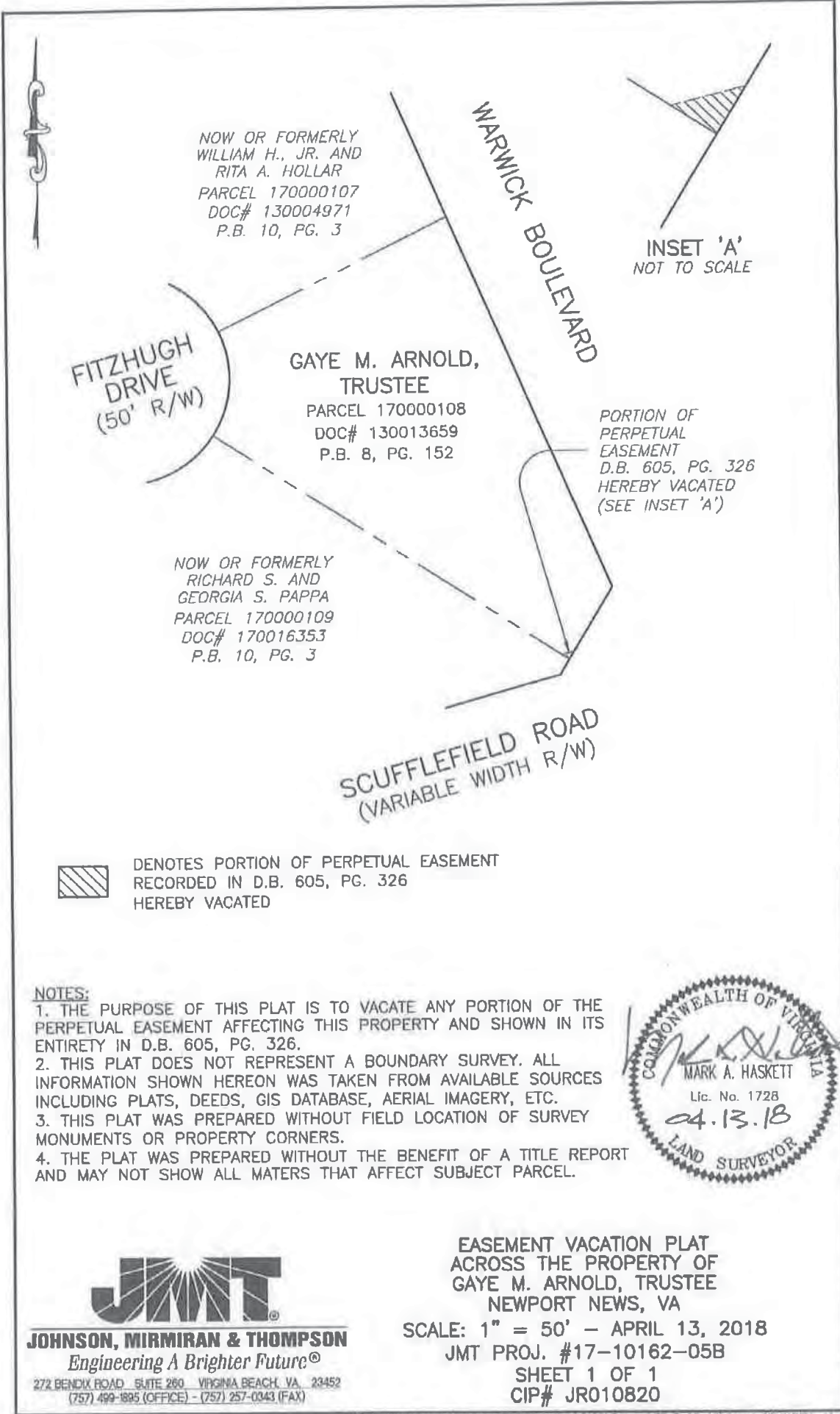
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER D.B. 2128, PG. 1974 (PLAT) AND SHOWN IN ITS ENTIRETY IN D.B. 607, PG. 229.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
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EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 607, PG. 229
NEWPORT NEWS, VA
SCALE: 1" = 50' - JULY 2, 2018
PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



NOW OR FORMERLY
 WILLIAM H., JR. AND
 RITA A. HOLLAR
 PARCEL 170000107
 DOC# 130004971
 P.B. 10, PG. 3

INSET 'A'
 NOT TO SCALE


FITZHUGH
 DRIVE
 (50' R/W)

GAYE M. ARNOLD,
 TRUSTEE
 PARCEL 170000108
 DOC# 130013659
 P.B. 8, PG. 152

PORTION OF
 PERPETUAL
 EASEMENT
 D.B. 605, PG. 326
 HEREBY VACATED
 (SEE INSET 'A')

NOW OR FORMERLY
 RICHARD S. AND
 GEORGIA S. PAPP
 PARCEL 170000109
 DOC# 170016353
 P.B. 10, PG. 3

SCUFFLEFIELD ROAD
 (VARIABLE WIDTH R/W)

 DENOTES PORTION OF PERPETUAL EASEMENT
 RECORDED IN D.B. 605, PG. 326
 HEREBY VACATED

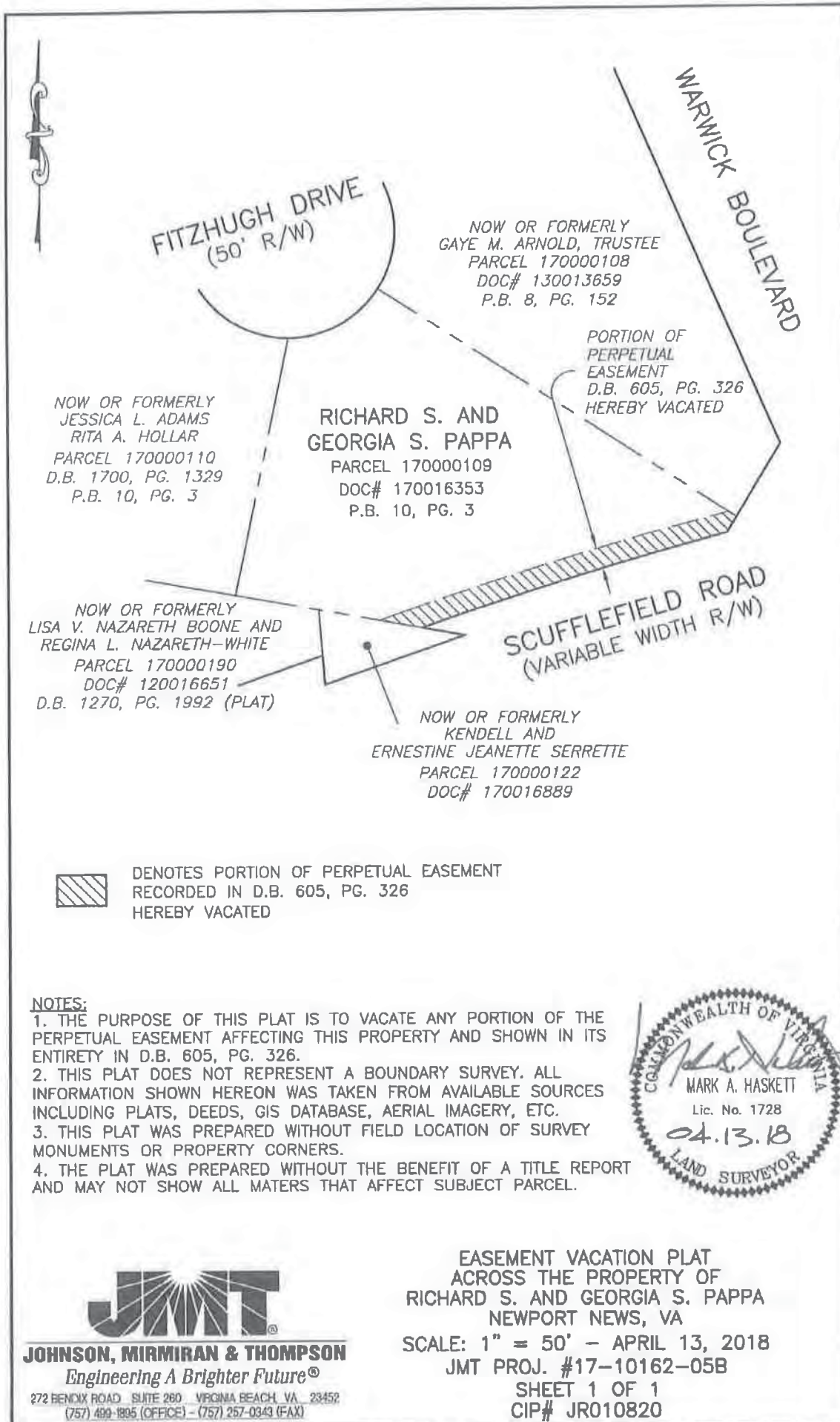
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 605, PG. 326.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
 (757) 499-1885 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 GAYE M. ARNOLD, TRUSTEE
 NEWPORT NEWS, VA
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



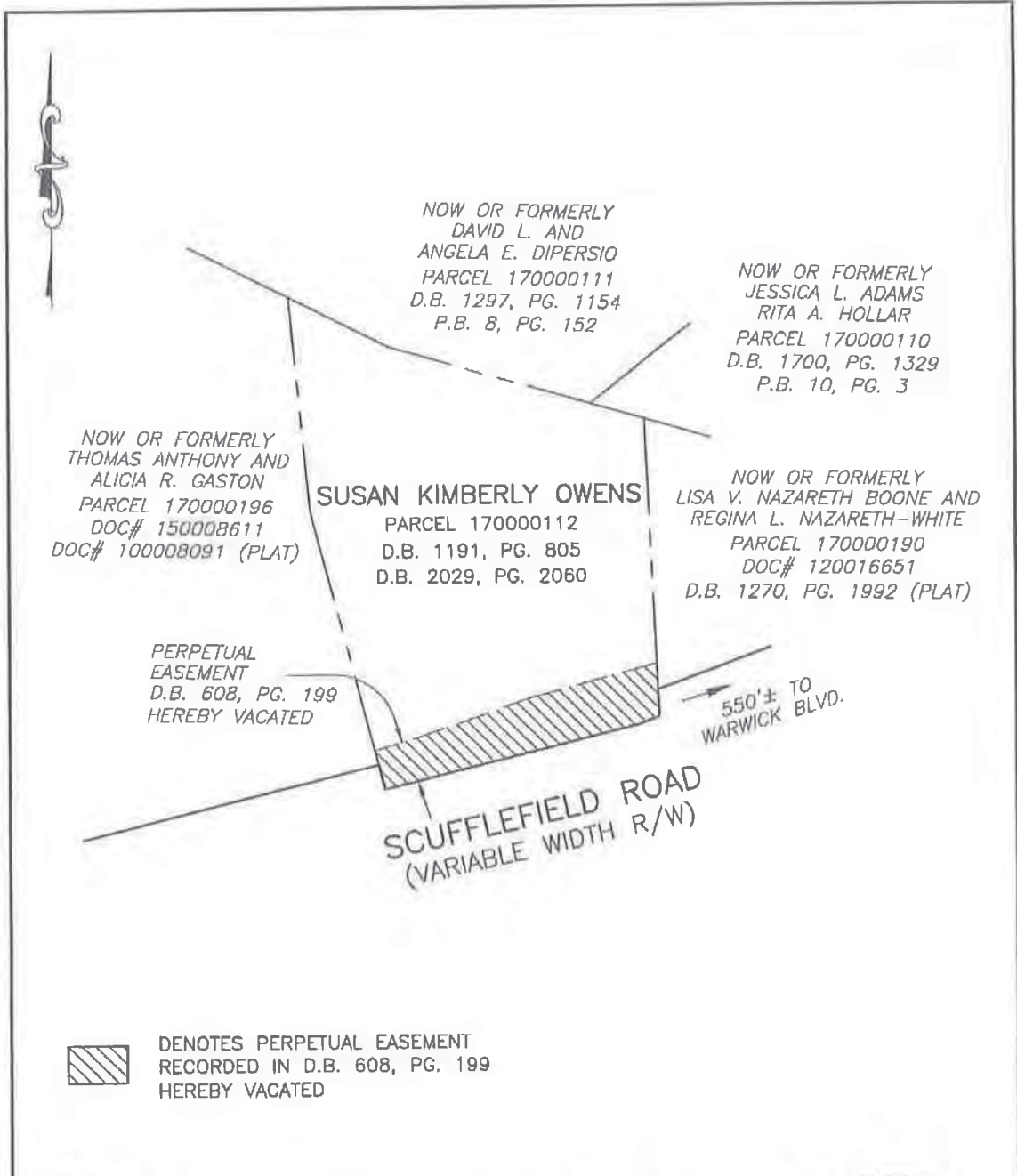
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 605, PG. 326.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
JOHNSON, MIRMIRAN & THOMPSON
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 272 BENCH ROAD SUITE 260 VIRGINIA BEACH VA 23452
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
RICHARD S. AND GEORGIA S. PAPP
NEWPORT NEWS, VA
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



 DENOTES PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 199 HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 199.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
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 272 BENDIX ROAD, SUITE 250 VIRGINIA BEACH, VA 23452
 (757) 490-1895 (OFFICE) - (757) 257-0343 (FAX)

**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 SUSAN KIMBERLY OWENS
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



NOW OR FORMERLY
RODNEY A. DUGGER, SR.
PARCEL 169000109
DOC# 160017332

CLARETHA W. LUDY
PARCEL 170000114
DOC# 170015223

NOW OR FORMERLY
DWAYNE A. AND
VERONICA TIGS
PARCEL 170000195
DOC# 170005926
DOC# 100008091 (PLAT)

PERPETUAL
EASEMENT
D.B. 606, PG. 409
HEREBY VACATED

875'± TO
WARWICK BLVD.

SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)



DENOTES PERPETUAL EASEMENT
RECORDED IN D.B. 606, PG. 409
HEREBY VACATED

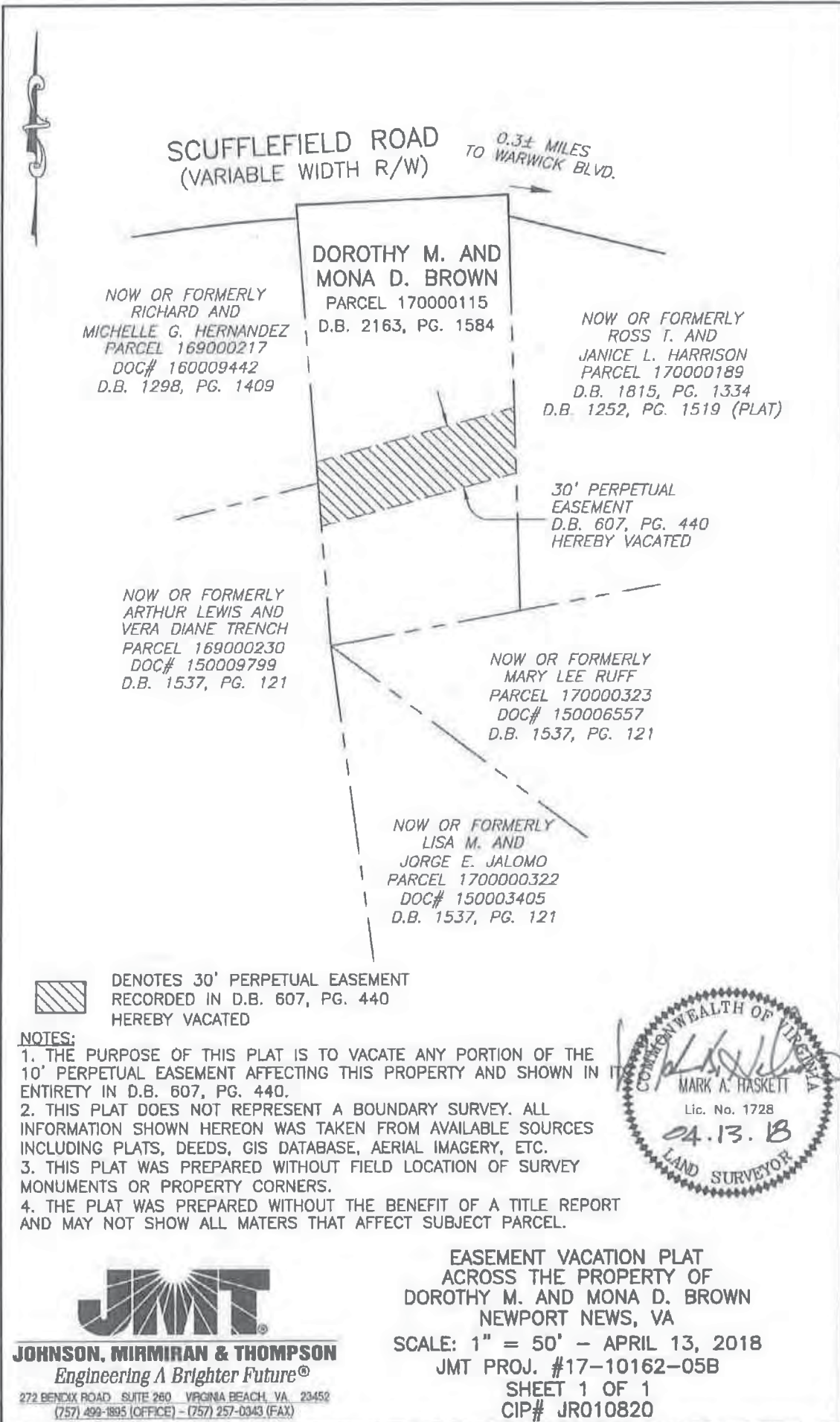
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 606, PG. 409.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CLARETHA W. LUDY
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W) 0.3± MILES TO WARWICK BLVD.

NOW OR FORMERLY
RICHARD AND
MICHELLE G. HERNANDEZ
PARCEL 169000217
DOC# 160009442
D.B. 1298, PG. 1409

DOROTHY M. AND
MONA D. BROWN
PARCEL 170000115
D.B. 2163, PG. 1584


NOW OR FORMERLY
ROSS T. AND
JANICE L. HARRISON
PARCEL 170000189
D.B. 1815, PG. 1334
D.B. 1252, PG. 1519 (PLAT)

30' PERPETUAL
EASEMENT
D.B. 607, PG. 440
HEREBY VACATED

NOW OR FORMERLY
ARTHUR LEWIS AND
VERA DIANE TRENCH
PARCEL 169000230
DOC# 150009799
D.B. 1537, PG. 121

NOW OR FORMERLY
MARY LEE RUFF
PARCEL 170000323
DOC# 150006557
D.B. 1537, PG. 121

NOW OR FORMERLY
LISA M. AND
JORGE E. JALOMO
PARCEL 1700000322
DOC# 150003405
D.B. 1537, PG. 121

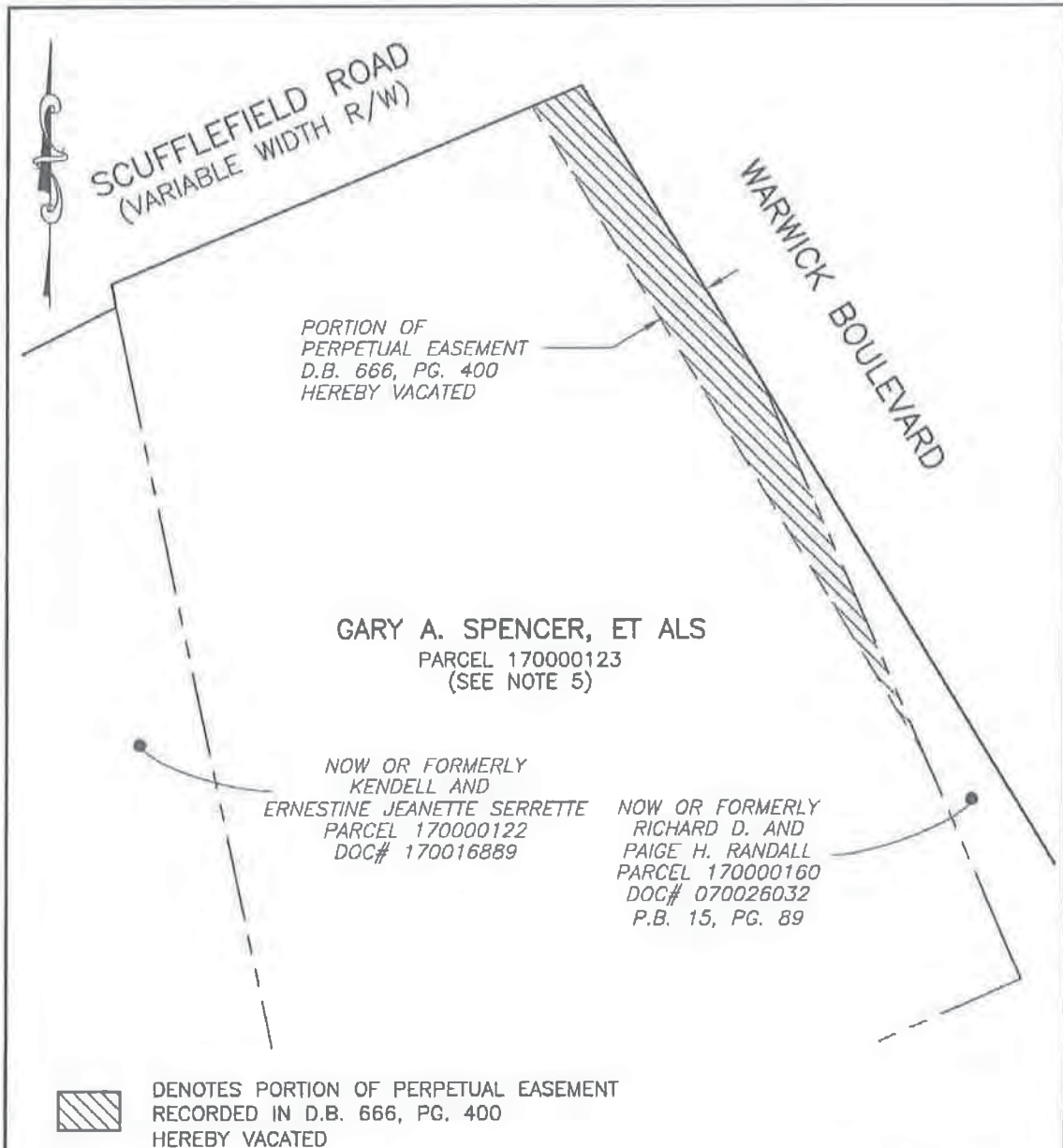
 DENOTES 30' PERPETUAL EASEMENT
RECORDED IN D.B. 607, PG. 440
HEREBY VACATED

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 607, PG. 440.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
 3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
 4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.




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(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
DOROTHY M. AND MONA D. BROWN
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JRO10820




PORTION OF PERPETUAL EASEMENT
D.B. 666, PG. 400
HEREBY VACATED

GARY A. SPENCER, ET ALS
PARCEL 170000123
(SEE NOTE 5)

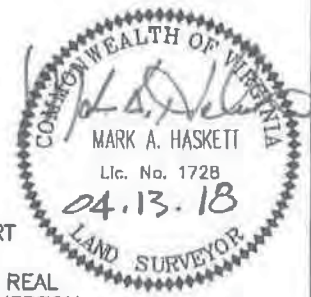
NOW OR FORMERLY
KENDELL AND
ERNESTINE JEANETTE SERRETTE
PARCEL 170000122
DOC# 170016889

NOW OR FORMERLY
RICHARD D. AND
PAIGE H. RANDALL
PARCEL 170000160
DOC# 070026032
P.B. 15, PG. 89

 DENOTES PORTION OF PERPETUAL EASEMENT
RECORDED IN D.B. 666, PG. 400
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 666, PG. 400.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.
5. RECORDATION INFORMATION FOR THIS PARCEL OBTAINED FROM THE REAL ESTATE ASSESSORS OFFICE WAS NOT CORRECT. INFORMATION SHOWN HEREON IS BASED ON TAX PARCEL INFORMATION FROM ONLINE SOURCES AND ADJOINING RECORD INFORMATION.




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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
GARY A. SPENCER, ET ALS
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

0.2± MILES
TO WARWICK BLVD.

NOW OR FORMERLY
GREGORY E. AND
ALICE B. SEAY
PARCEL 170000187
D.B. 1367, PG. 1068
D.B. 1252, PG. 1519 (PLAT)

WANDA L. PATIERNO
PARCEL 170000186
D.B. 1904, PG. 951
D.B. 1252, PG. 1519 (PLAT)

PORTION OF
PERPETUAL
EASEMENT
D.B. 613, PG. 110
HEREBY VACATED

NOW OR FORMERLY
FLOYDA CARTER
PARCEL 170000155
D.B. 1083, PG. 1665 (PLAT)

NOW OR FORMERLY
MYRON A. AND
ANTOINETTE D. MOORE
PARCEL 170000326
D.B. 1719, PG. 1090
D.B. 1537, PG. 121 (PLAT)

NOW OR FORMERLY
JASON D. AND
CHRISTINE M. MELLISH
PARCEL 170000310
DOC# 110009256
D.B. 1162, PG. 1428 (PLAT)



DENOTES PORTIONS OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 613, PG. 110
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 613, PG. 110.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
(757) 499-1895 (OFFICE) - (757) 267-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
WANDA L. PATIERNO
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W) 0.2± MILES TO WARWICK BLVD.

NOW OR FORMERLY
EFRAIN PADRON, II AND
AMBER PADRON
PARCEL 170000188
DOC# 160000609
D.B. 1252, PG. 1519 (PLAT)

**GREGORY E. AND
ALICE B. SEAY**

PARCEL 170000187
D.B. 1367, PG. 1068
D.B. 1252, PG. 1519 (PLAT)

NOW OR FORMERLY
WANDA L. PATIERNO
PARCEL 170000186
D.B. 1904, PG. 951
D.B. 1252, PG. 1519 (PLAT)

PORTIONS OF
30' PERPETUAL
EASEMENT
D.B. 609, PG. 13
& D.B. 613, PG. 110
HEREBY VACATED

NOW OR FORMERLY
JOE H. TAYLOR, JR. AND
CATHERINE B. TAYLOR
PARCEL 170000324
DOC# 140009457
D.B. 1537, PG. 121 (PLAT)

NOW OR FORMERLY
MYRON A. AND
ANTOINETTE D. MOORE
PARCEL 170000326
D.B. 1719, PG. 1090
D.B. 1537, PG. 121 (PLAT)



DENOTES PORTIONS OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 609, PG. 13 AND D.B. 613, PG. 110
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 609, PG. 13 AND D.B. 613, PG. 110.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
GREGORY E. AND ALICE B. SEAY
NEWPORT NEWS, VA

SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W) TO 0.2± MILES WARWICK BLVD.

PORTIONS OF
30' PERPETUAL
EASEMENT
D.B. 608, PG. 472
& D.B. 609, PG. 13
HEREBY VACATED

NOW OR FORMERLY
ROSS T. AND
JANICE L. HARRISON
PARCEL 170000189
D.B. 1815, PG. 1334
D.B. 1252, PG. 1519 (PLAT)

**EFRAIN PADRON, II
AND AMBER PADRON**
PARCEL 170000188
DOC# 160000609
D.B. 1252, PG. 1519 (PLAT)

NOW OR FORMERLY
GREGORY E. AND
ALICE B. SEAY
PARCEL 170000187
D.B. 1367, PG. 1068
D.B. 1252, PG. 1519 (PLAT)

NOW OR FORMERLY
MARY LEE RUFF
PARCEL 170000323
DOC# 150006557
D.B. 1537, PG. 121 (PLAT)

NOW OR FORMERLY
JOE H. TAYLOR, JR. AND
CATHERINE B. TAYLOR
PARCEL 170000324
DOC# 140009457
D.B. 1537, PG. 121 (PLAT)



DENOTES PORTIONS OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 472 AND D.B. 609, PG. 13
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 472 AND D.B. 609, PG. 13.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EFRAIN PADRON, II AND AMBER PADRON
NEWPORT NEWS, VA**
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W) TO WARWICK BLVD.
0.2± MILES

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 608, PG. 472
HEREBY VACATED


NOW OR FORMERLY
DOROTHY M. AND
MONA D. BROWN
PARCEL 170000115
D.B. 2163, PG. 1584

NOW OR FORMERLY
EFRAIN PADRON, II AND
AMBER PADRON
PARCEL 170000188
DOC# 160000609
D.B. 1252, PG. 1519 (PLAT)

ROSS T. AND
JANICE L. HARRISON
PARCEL 170000189
D.B. 1815, PG. 1334
D.B. 1252, PG. 1519 (PLAT)

NOW OR FORMERLY
MARY LEE RUFF
PARCEL 170000323
DOC# 150006557
D.B. 1537, PG. 121 (PLAT)

NOW OR FORMERLY
MARY LEE RUFF
PARCEL 170000323
DOC# 150006557
D.B. 1537, PG. 121 (PLAT)

 DENOTES A PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 608, PG. 472
HEREBY VACATED

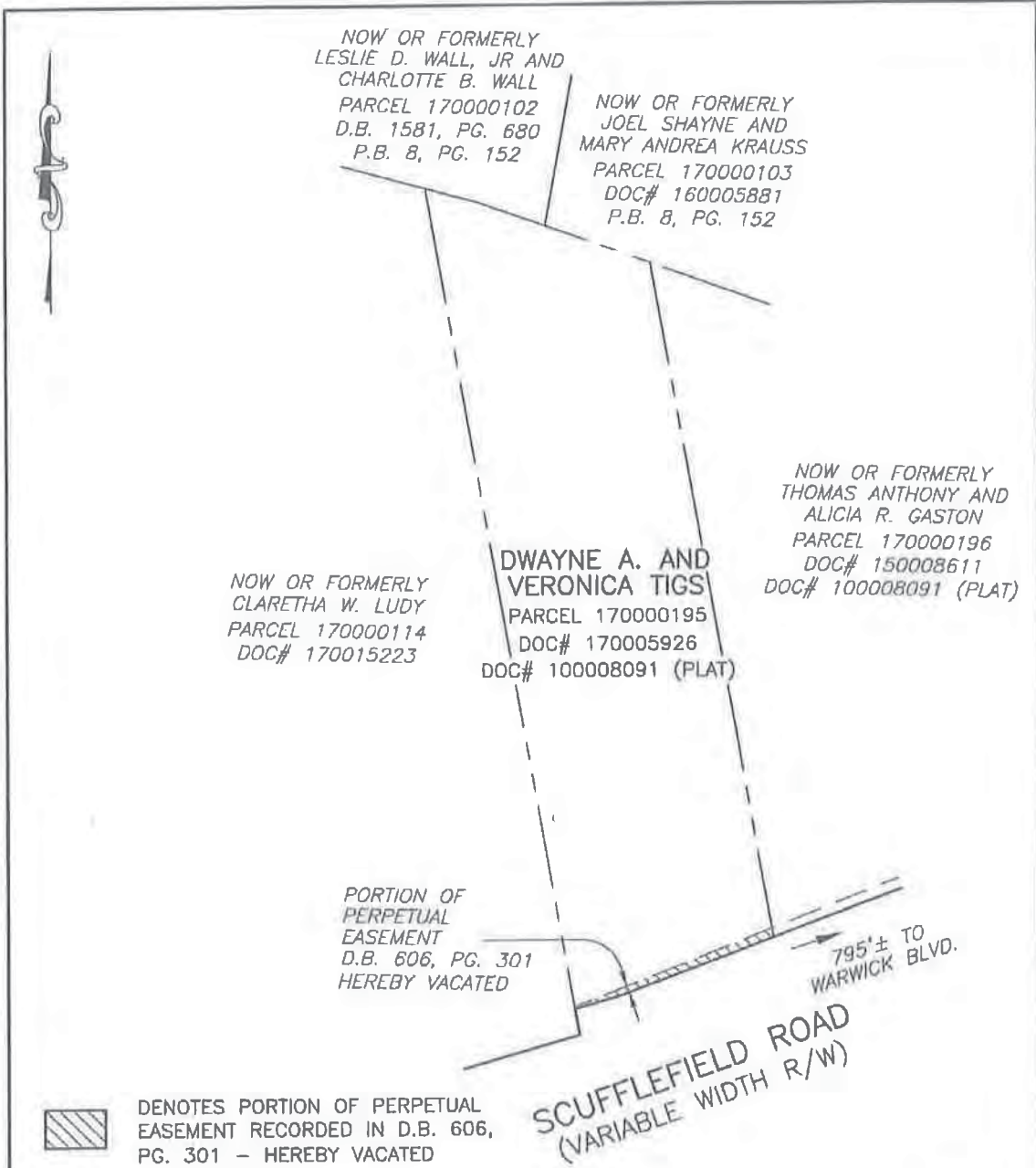
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 608, PG. 472.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
ROSS T. AND JANICE L. HARRISON
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



NOW OR FORMERLY
LESLIE D. WALL, JR AND
CHARLOTTE B. WALL
PARCEL 170000102
D.B. 1581, PG. 680
P.B. 8, PG. 152

NOW OR FORMERLY
JOEL SHAYNE AND
MARY ANDREA KRAUSS
PARCEL 170000103
DOC# 160005881
P.B. 8, PG. 152

NOW OR FORMERLY
THOMAS ANTHONY AND
ALICIA R. GASTON
PARCEL 170000196
DOC# 150008611
DOC# 100008091 (PLAT)

NOW OR FORMERLY
CLARETHA W. LUDY
PARCEL 170000114
DOC# 170015223

DWAYNE A. AND
VERONICA TIGS
PARCEL 170000195
DOC# 170005926
DOC# 100008091 (PLAT)

PORTION OF
PERPETUAL
EASEMENT
D.B. 606, PG. 301
HEREBY VACATED

795'± TO
WARWICK BLVD.

SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)

 DENOTES PORTION OF PERPETUAL
EASEMENT RECORDED IN D.B. 606,
PG. 301 - HEREBY VACATED

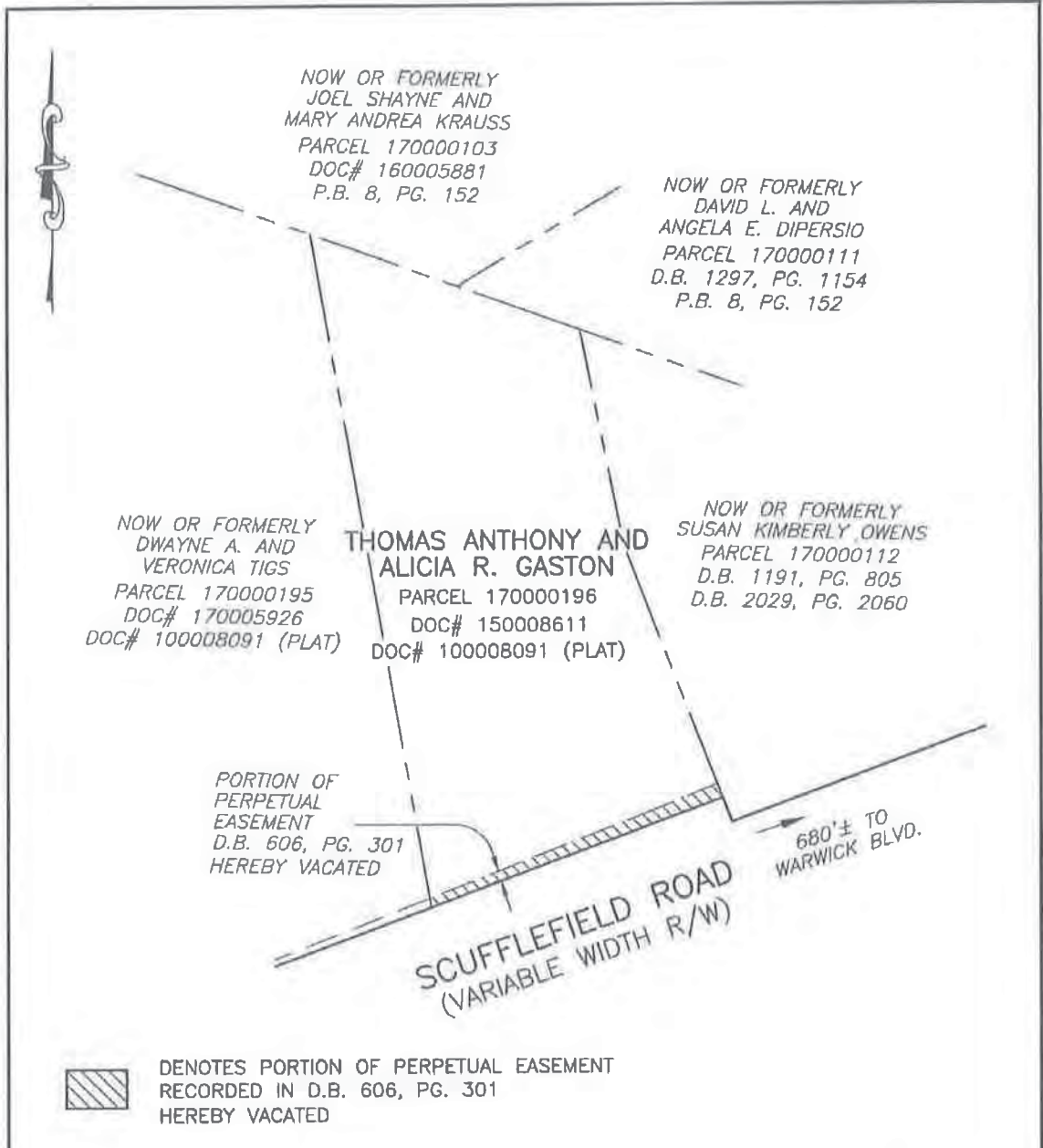
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 606, PG. 301.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
DWAYNE A. AND VERONICA TIGS
NEWPORT NEWS, VA
SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



NOW OR FORMERLY
 JOEL SHAYNE AND
 MARY ANDREA KRAUSS
 PARCEL 170000103
 DOC# 160005881
 P.B. 8, PG. 152

NOW OR FORMERLY
 DAVID L. AND
 ANGELA E. DIPERSIO
 PARCEL 170000111
 D.B. 1297, PG. 1154
 P.B. 8, PG. 152

NOW OR FORMERLY
 DWAYNE A. AND
 VERONICA TIGS
 PARCEL 170000195
 DOC# 170005926
 DOC# 100008091 (PLAT)


**THOMAS ANTHONY AND
 ALICIA R. GASTON**
 PARCEL 170000196
 DOC# 150008611
 DOC# 100008091 (PLAT)

NOW OR FORMERLY
 SUSAN KIMBERLY OWENS
 PARCEL 170000112
 D.B. 1191, PG. 805
 D.B. 2029, PG. 2060

PORTION OF
 PERPETUAL
 EASEMENT
 D.B. 606, PG. 301
 HEREBY VACATED

680± TO
 WARWICK BLVD.

SCUFFLEFIELD ROAD
 (VARIABLE WIDTH R/W)

 DENOTES PORTION OF PERPETUAL EASEMENT
 RECORDED IN D.B. 606, PG. 301
 HEREBY VACATED

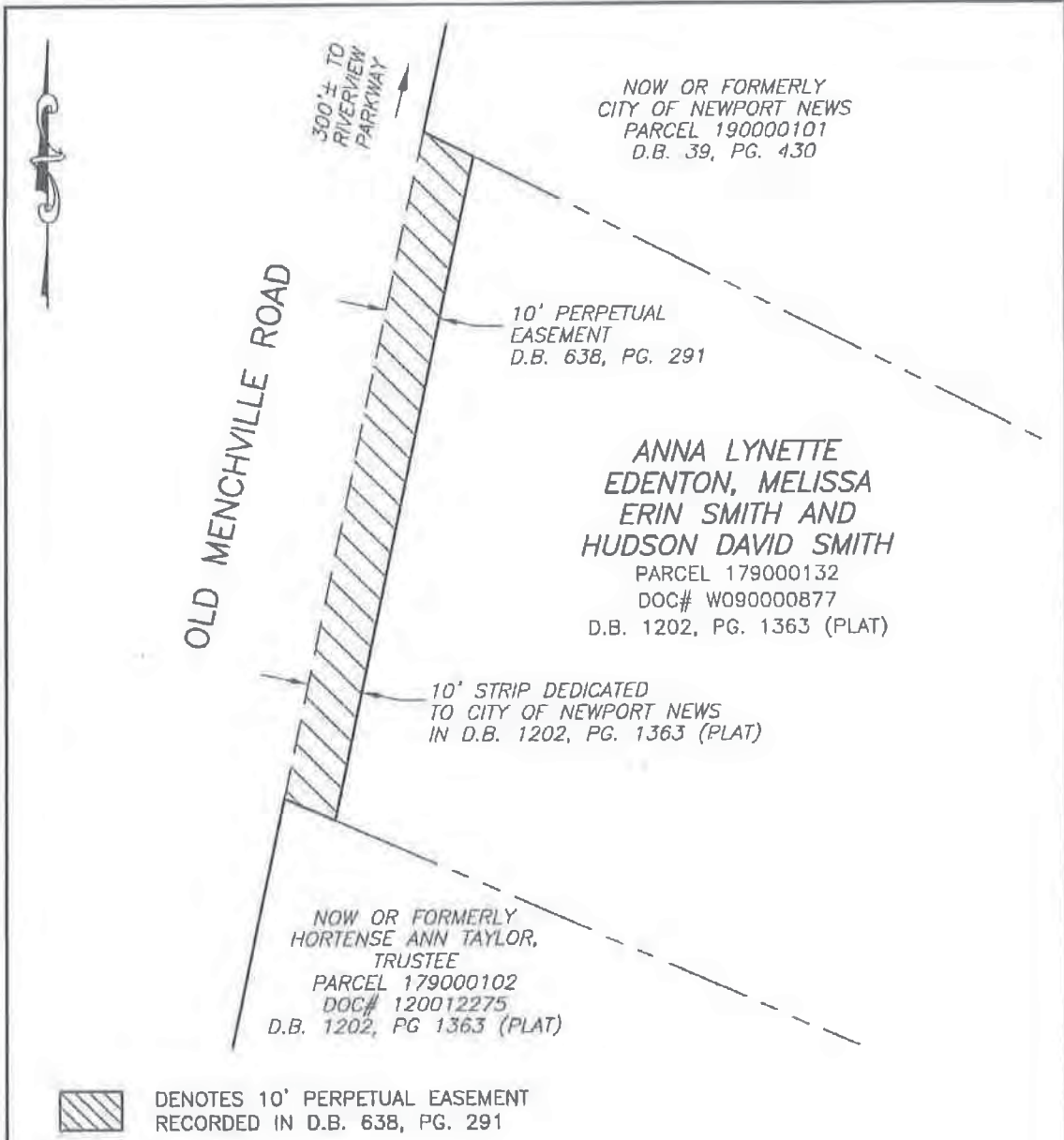
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 606, PG. 301.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 THOMAS ANTHONY AND ALICIA R. GASTON
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



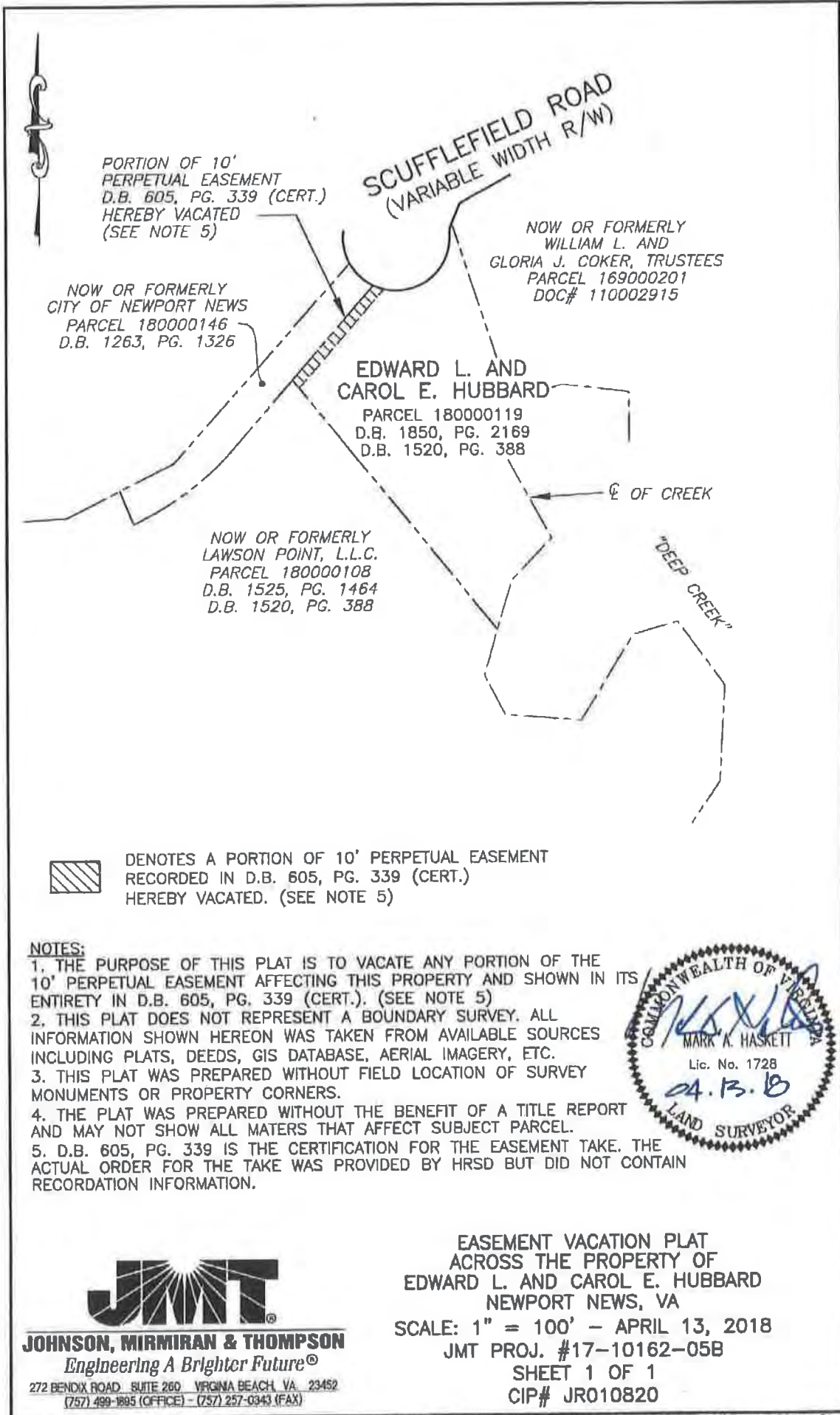
 DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 638, PG. 291

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER D.B. 1202, PG. 1363 (PLAT) AND SHOWN IN ITS ENTIRETY IN D.B. 638, PG. 291.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
 3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
 4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 638, PG. 291
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



PORTION OF 10'
PERPETUAL EASEMENT
D.B. 605, PG. 339 (CERT.)
HEREBY VACATED
(SEE NOTE 5)

NOW OR FORMERLY
CITY OF NEWPORT NEWS
PARCEL 180000146
D.B. 1263, PG. 1326

NOW OR FORMERLY
WILLIAM L. AND
GLORIA J. COKER, TRUSTEES
PARCEL 169000201
DOC# 110002915

EDWARD L. AND
CAROL E. HUBBARD
PARCEL 180000119
D.B. 1850, PG. 2169
D.B. 1520, PG. 388

NOW OR FORMERLY
LAWSON POINT, L.L.C.
PARCEL 180000108
D.B. 1525, PG. 1464
D.B. 1520, PG. 388

☉ OF CREEK

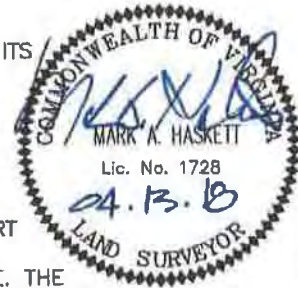
"DEEP CREEK"



DENOTES A PORTION OF 10' PERPETUAL EASEMENT
RECORDED IN D.B. 605, PG. 339 (CERT.)
HEREBY VACATED. (SEE NOTE 5)

NOTES:

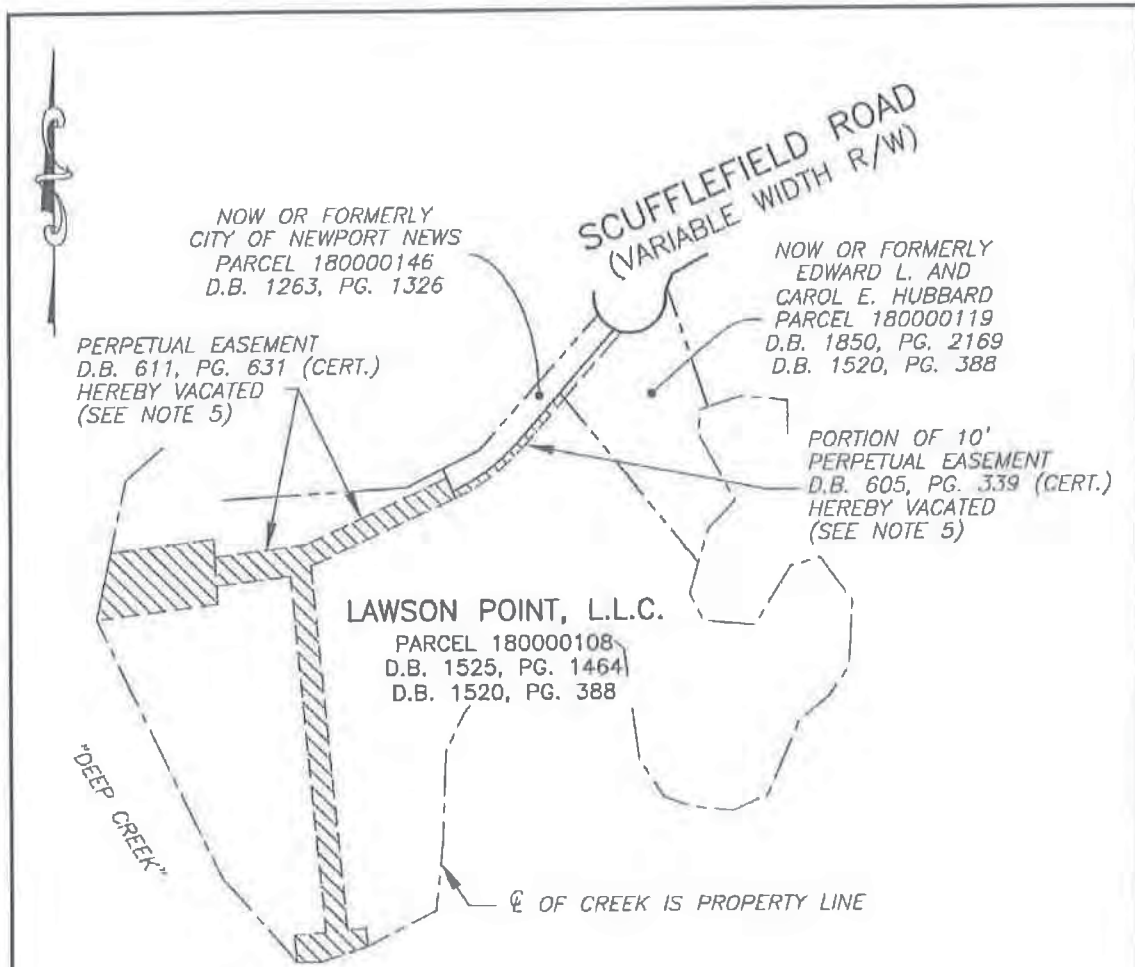
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 605, PG. 339 (CERT.). (SEE NOTE 5)
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.
5. D.B. 605, PG. 339 IS THE CERTIFICATION FOR THE EASEMENT TAKE. THE ACTUAL ORDER FOR THE TAKE WAS PROVIDED BY HRSD BUT DID NOT CONTAIN RECORDATION INFORMATION.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EDWARD L. AND CAROL E. HUBBARD
NEWPORT NEWS, VA

SCALE: 1" = 100' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



 DENOTES PERPETUAL EASEMENT RECORDED IN D.B. 611, PG. 631 (CERT.) AND A PORTION OF 10' PERPETUAL EASEMENT RECORDED IN D.B. 605, PG. 339 (CERT.) HEREBY VACATED. (SEE NOTE 5)

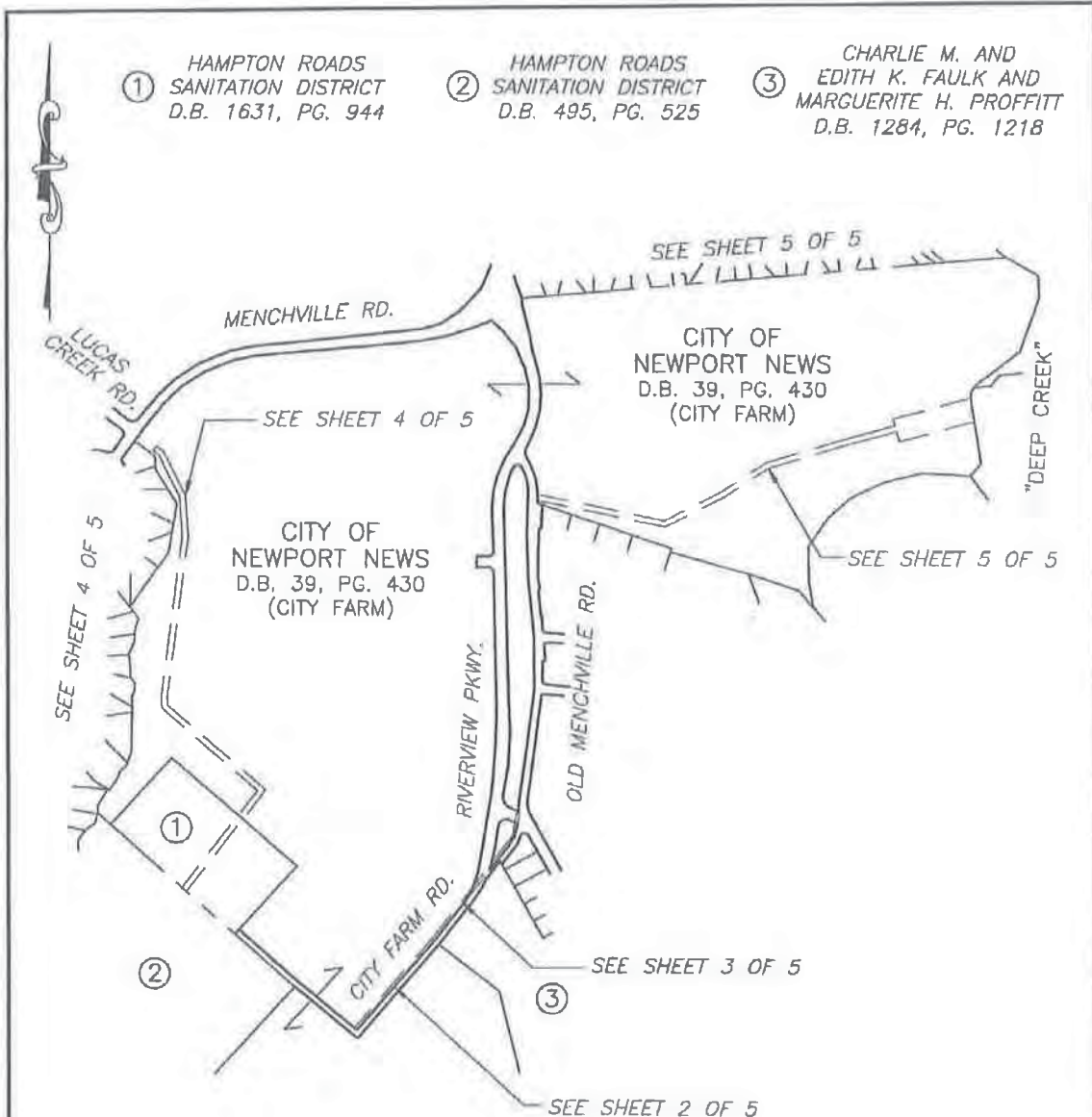
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 611, PG. 631 (CERT.) AND ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 605, PG. 339 (CERT.). (SEE NOTE 5)
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.
5. D.B. 605, PG. 339 AND D.B. 611, PG. 631 ARE THE CERTIFICATIONS FOR THE EASEMENT TAKES. THE ACTUAL ORDERS FOR THE TAKES WERE PROVIDED BY HRSD BUT DID NOT CONTAIN RECORDATION INFORMATION.



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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 LAWSON POINT, L.L.C.
 NEWPORT NEWS, VA
 SCALE: 1" = 200' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENTS AFFECTING THIS PROPERTY AND SHOWN IN THEIR ENTIRETY IN D.B. 597, PG. 355.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIAN & THOMPSON

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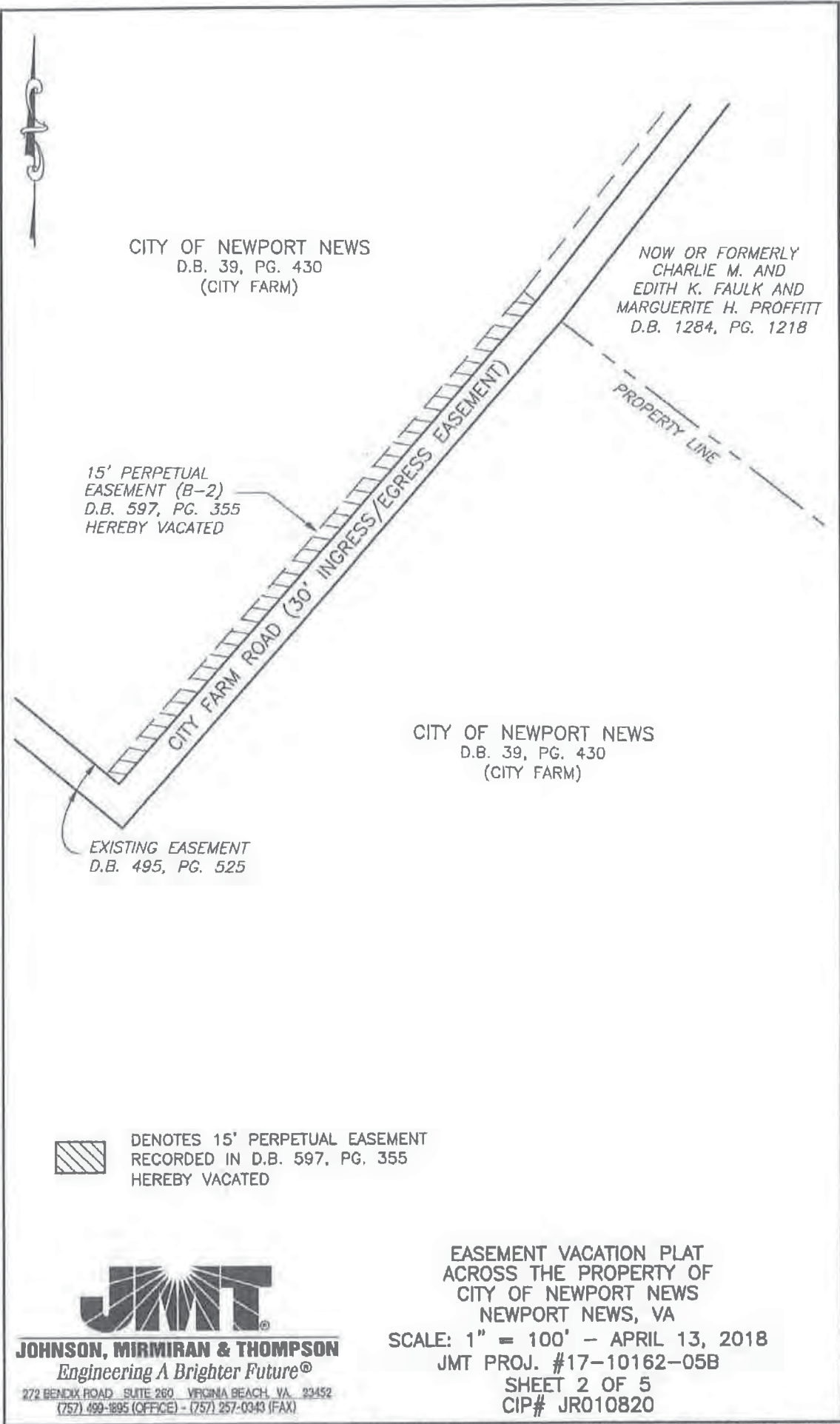
**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CITY OF NEWPORT NEWS
NEWPORT NEWS, VA**

SCALE: 1" = 700' - APRIL 13, 2018

JMT PROJ. #17-10162-05B

SHEET 1 OF 5

CIP# JR010820




CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

NOW OR FORMERLY
CHARLIE M. AND
EDITH K. FAULK AND
MARGUERITE H. PROFFITT
D.B. 1284, PG. 1218

15' PERPETUAL
EASEMENT (B-2)
D.B. 597, PG. 355
HEREBY VACATED

EXISTING EASEMENT
D.B. 495, PG. 525

CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

 DENOTES 15' PERPETUAL EASEMENT
RECORDED IN D.B. 597, PG. 355
HEREBY VACATED

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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CITY OF NEWPORT NEWS
NEWPORT NEWS, VA
SCALE: 1" = 100' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 2 OF 5
CIP# JR010820



CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

RIVERVIEW PARKWAY

MENCHVILLE ROAD S.

15' PERPETUAL
EASEMENT (B-4)
D.B. 597, PG. 355
HEREBY VACATED

NOW OR FORMERLY
CHARLIE M. AND
EDITH K. FAULK AND
MARGUERITE H. PROFFITT
D.B. 1284, PG. 1218

CITY FARM ROAD (30' INGRESS/EGRESS EASEMENT)

PROPERTY LINE

CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

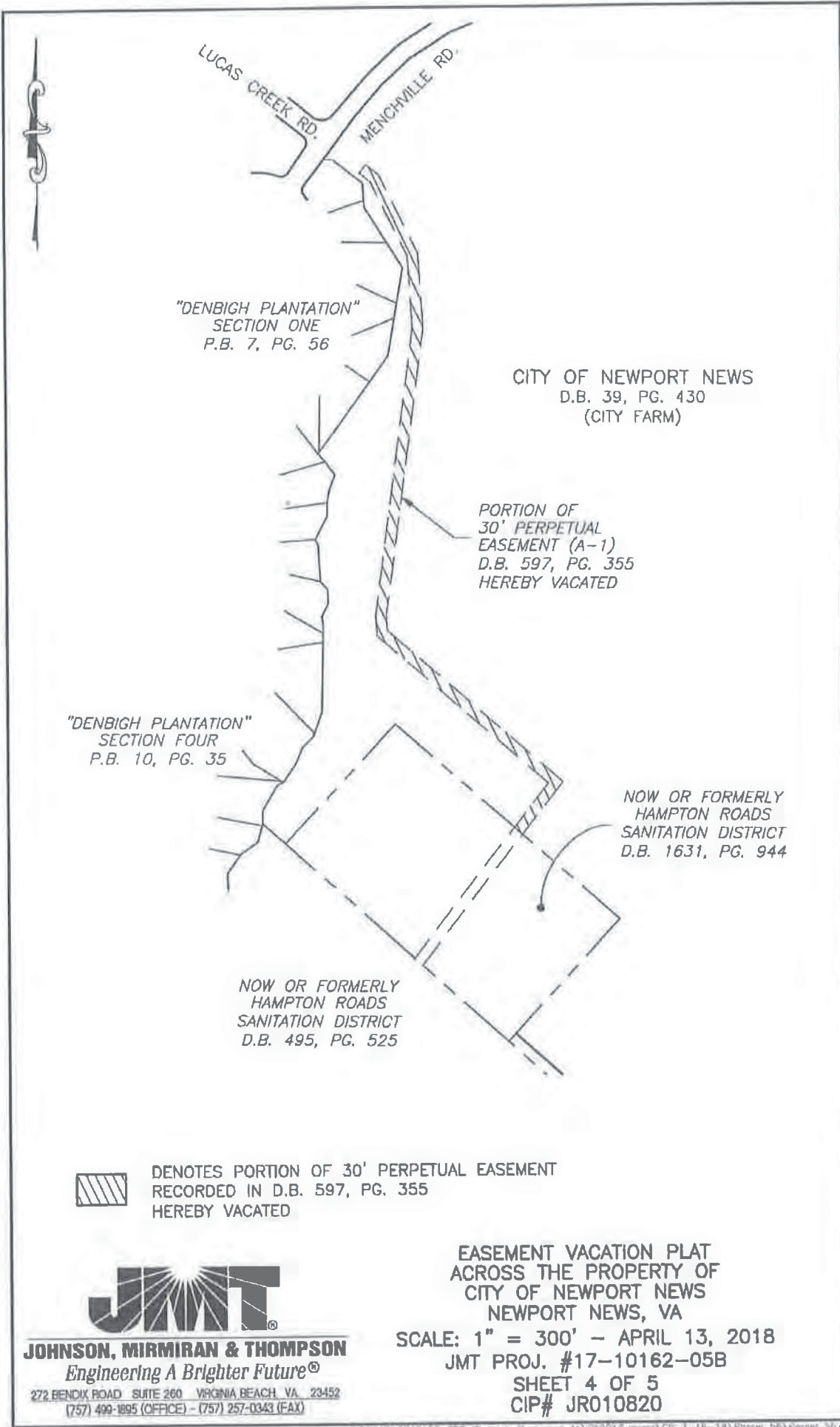


DENOTES 15' PERPETUAL EASEMENT
RECORDED IN D.B. 597, PG. 355
HEREBY VACATED



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CITY OF NEWPORT NEWS
NEWPORT NEWS, VA
SCALE: 1" = 100' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 3 OF 5
CIP# JR010820



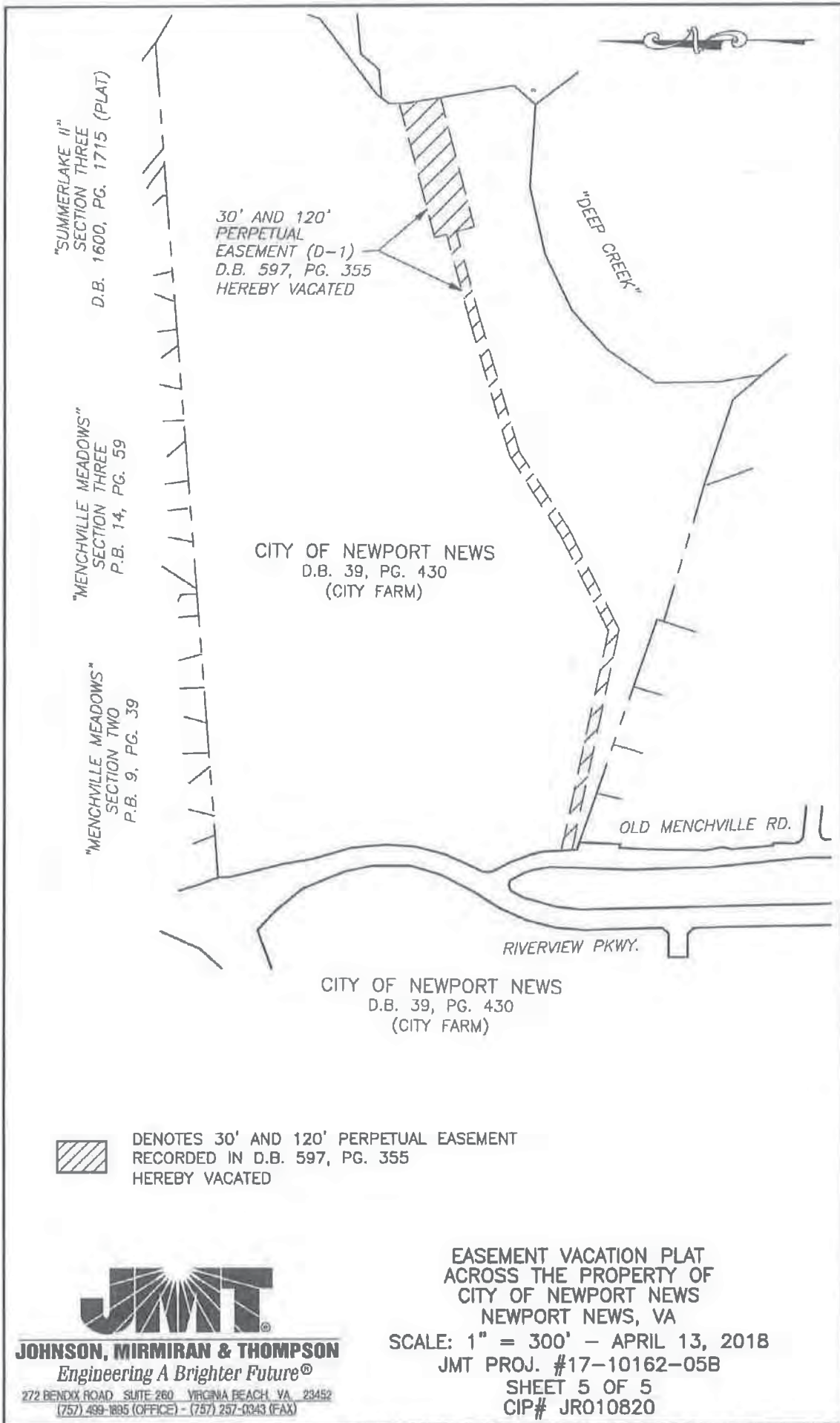
DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 597, PG. 355
HEREBY VACATED



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CITY OF NEWPORT NEWS
NEWPORT NEWS, VA

SCALE: 1" = 300' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 4 OF 5
CIP# JR010820



"SUMMERLAKE II"
SECTION THREE
D.B. 1600, PG. 1715 (PLAT)

30' AND 120'
PERPETUAL
EASEMENT (D-1)
D.B. 597, PG. 355
HEREBY VACATED

"MENCHVILLE MEADOWS"
SECTION THREE
P.B. 14, PG. 59


CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

"MENCHVILLE MEADOWS"
SECTION TWO
P.B. 9, PG. 39

OLD MENCHVILLE RD.

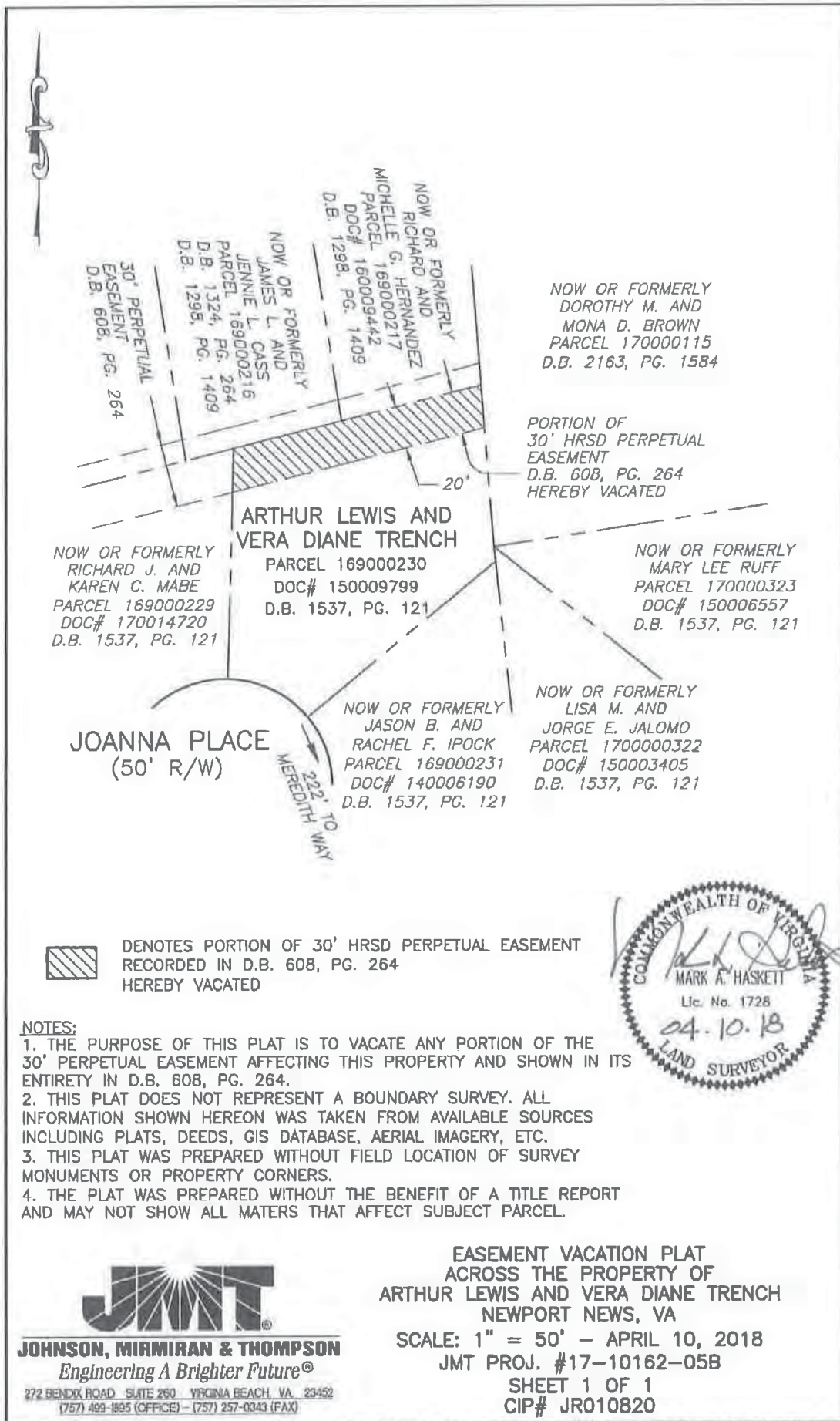
RIVERVIEW PKWY.


CITY OF NEWPORT NEWS
D.B. 39, PG. 430
(CITY FARM)

 DENOTES 30' AND 120' PERPETUAL EASEMENT
RECORDED IN D.B. 597, PG. 355
HEREBY VACATED

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 (757) 499-1885 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CITY OF NEWPORT NEWS
NEWPORT NEWS, VA
SCALE: 1" = 300' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 5 OF 5
CIP# JR010820



 DENOTES PORTION OF 30' HRSD PERPETUAL EASEMENT RECORDED IN D.B. 608, PG. 264 HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 608, PG. 264.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
 272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

**EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 ARTHUR LEWIS AND VERA DIANE TRENCH
 NEWPORT NEWS, VA**
 SCALE: 1" = 50' - APRIL 10, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820



KENDELL AND ERNESTINE
JEANETTE SERRETTE

PARCEL 170000122
DOC# 170016889

PERPETUAL
EASEMENT
D.B. 632, PG. 660
HEREBY VACATED

NOW OR FORMERLY
RICHARD S. AND
GEORGIA S. PAPPAS
PARCEL 170000109
DOC# 170016353
P.B. 10, PG. 3

NOW OR FORMERLY
LISA V. NAZARETH BOONE AND
REGINA L. NAZARETH-WHITE
PARCEL 170000190
DOC# 120016651
D.B. 1270, PG. 1992 (PLAT)

250'± TO
WARWICK BLVD.

SCUFFLEFIELD ROAD
(VARIABLE WIDTH R/W)



DENOTES PERPETUAL EASEMENT
RECORDED IN D.B. 632, PG. 660
HEREBY VACATED

NOTES:

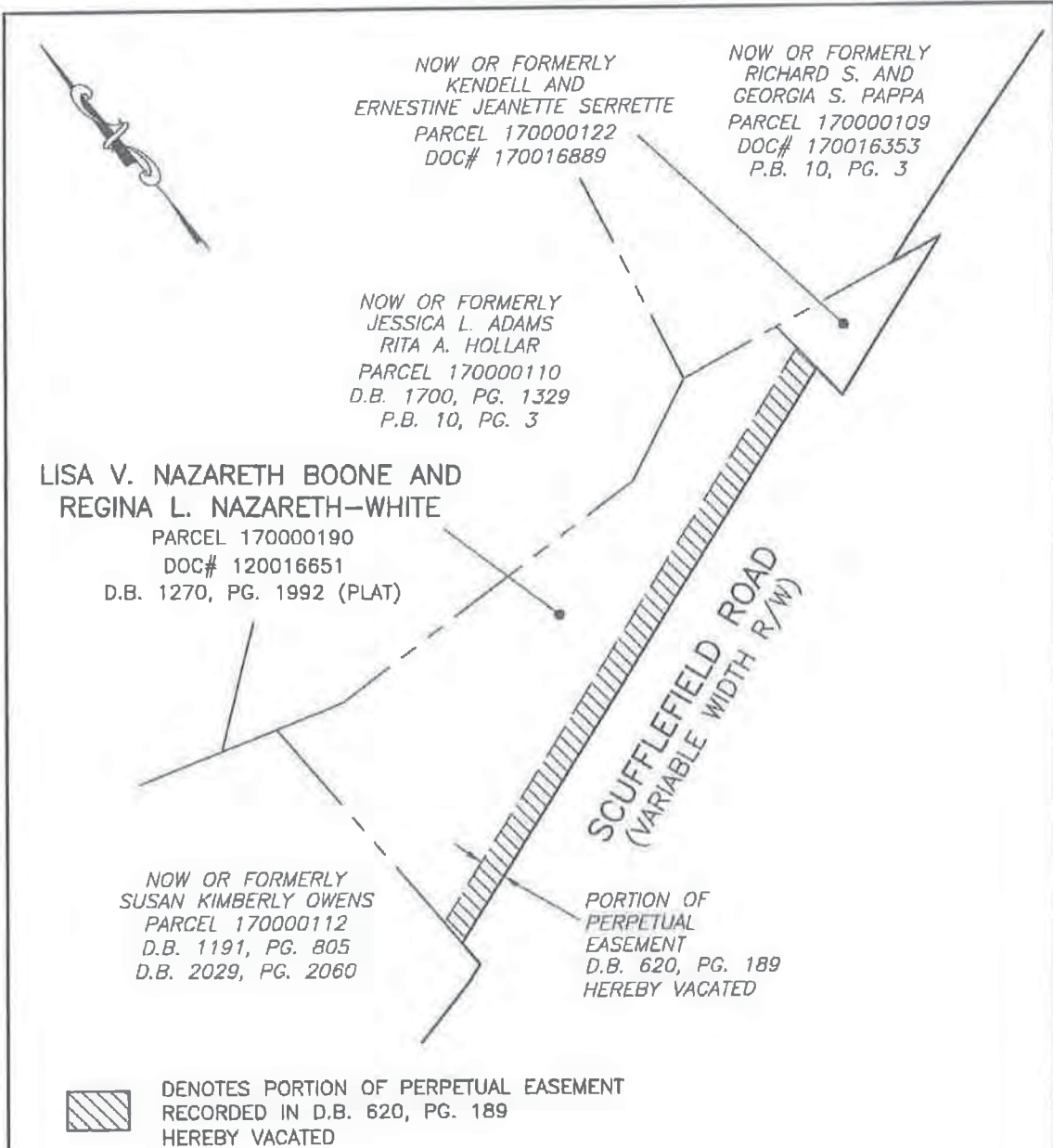
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 632, PG. 660.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
KENDELL AND ERNESTINE JEANETTE SERRETTE
NEWPORT NEWS, VA

SCALE: 1" = 50' - APRIL 13, 2018
JMT PROJ. #17-10162-05B
SHEET 1 OF 1
CIP# JR010820



NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 620, PG. 189.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 LISA V. NAZARETH BOONE AND
 REGINA L. NAZARETH-WHITE
 NEWPORT NEWS, VA
 SCALE: 1" = 50' - APRIL 13, 2018
 JMT PROJ. #17-10162-05B
 SHEET 1 OF 1
 CIP# JR010820

NOW OR FORMERLY
HORTENSE ANN
TAYLOR, TRUSTEE
PARCEL 179000102
DOC# 120012275

OLD MENCHVILLE ROAD

12' LANE

± 12' LANE

BONNIE K.
MATTHEWS, ET ALS
PARCEL 179000101
DOC# W100000164

10' PERPETUAL
EASEMENT
D.B. 638, PG. 288 &
D.B. 638, PG. 294
(HEREBY VACATED)

360' ± TO
CAMELLIA DRIVE

NOW OR FORMERLY
HORTENSE ANN
TAYLOR, TRUSTEE
PARCEL 179000118
DOC# 120012276



DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 638, PG. 288 & D.B. 638, PG. 294
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 638, PG. 288 & D.B. 638, PG. 294.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
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272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
BONNIE K. MATHEWS, ET ALS
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



NOW OR FORMERLY
 ANNA LYNNETTE EDENTON,
 MELISSA ERIN SMITH AND
 HUDSON DAVID SMITH
 PARCEL 169000205
 DOC# W090000877

OLD MENCHVILLE ROAD

HORTENSE ANN
 TAYLOR, TRUSTEE
 PARCEL 179000102
 DOC# 120012275

10' PERPETUAL
 EASEMENT
 D.B. 638, PG. 297
 (HEREBY VACATED)

463' ± TO
 CAMELLIA DRIVE

12' LANE
 12' LANE

NOW OR FORMERLY
 BONNIE K. MATTHEWS, ET ALS
 PARCEL 179000101
 DOC# W100000164



DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 638, PG. 297
 HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 638, PG. 297.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JOHNSON, MIRMIRAN & THOMPSON
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 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 HORTENSE ANN TAYLOR, TRUSTEE
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - MAY 11, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



NOW OR FORMERLY
BONNIE K. MATTHEWS, ET ALS
PARCEL 179000101
DOC# W100000164

10' PERPETUAL
EASEMENT
D.B. 638, PG. 297
(HEREBY VACATED)

OLD MENCHVILLE ROAD



HORTENSE ANN
TAYLOR, TRUSTEE
PARCEL 179000118
DOC# 120012276

R/W AS SHOWN
PER GIS RECORDS

PORTION OF 10'
PERPETUAL EASEMENT
APPEARS TO FALL
WITHIN R/W PER
GIS RECORDS

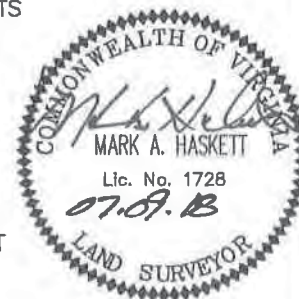
253' ± TO
CAMELLIA DRIVE

NOW OR FORMERLY
CARL T. AND
DARYL L. CARRO
PARCEL 179000119
D.B. 1471, PG. 989

-  DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 638, PG. 297
HEREBY VACATED
-  DENOTES PORTION OF 10' PERPETUAL EASEMENT
RECORDED IN D.B. 638, PG. 297
NOW IN RIGHT-OF-WAY

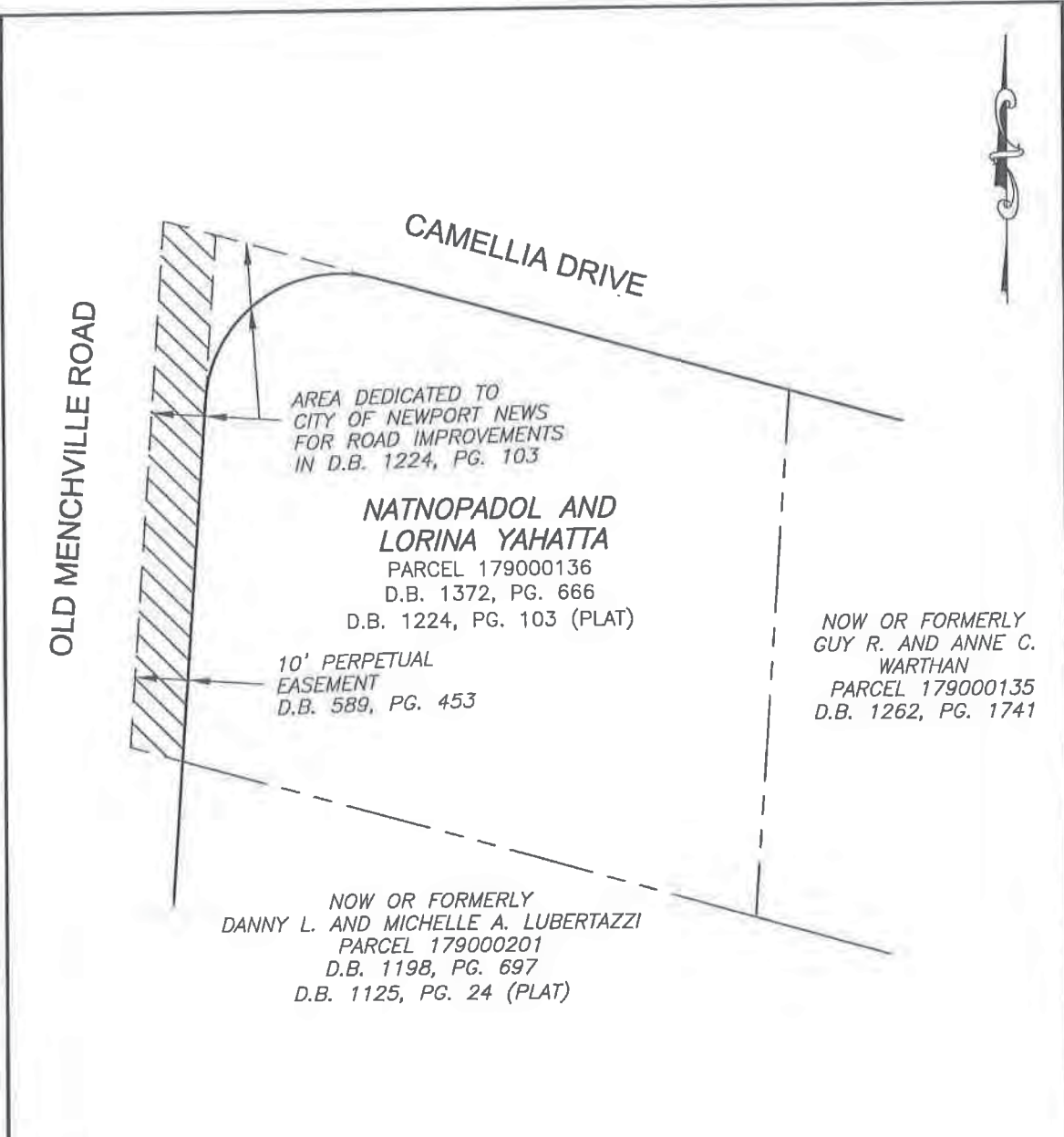
NOTES:


1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 10' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN GIS RECORDS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
HORTENSE ANN TAYLOR, TRUSTEE
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 589, PG. 453

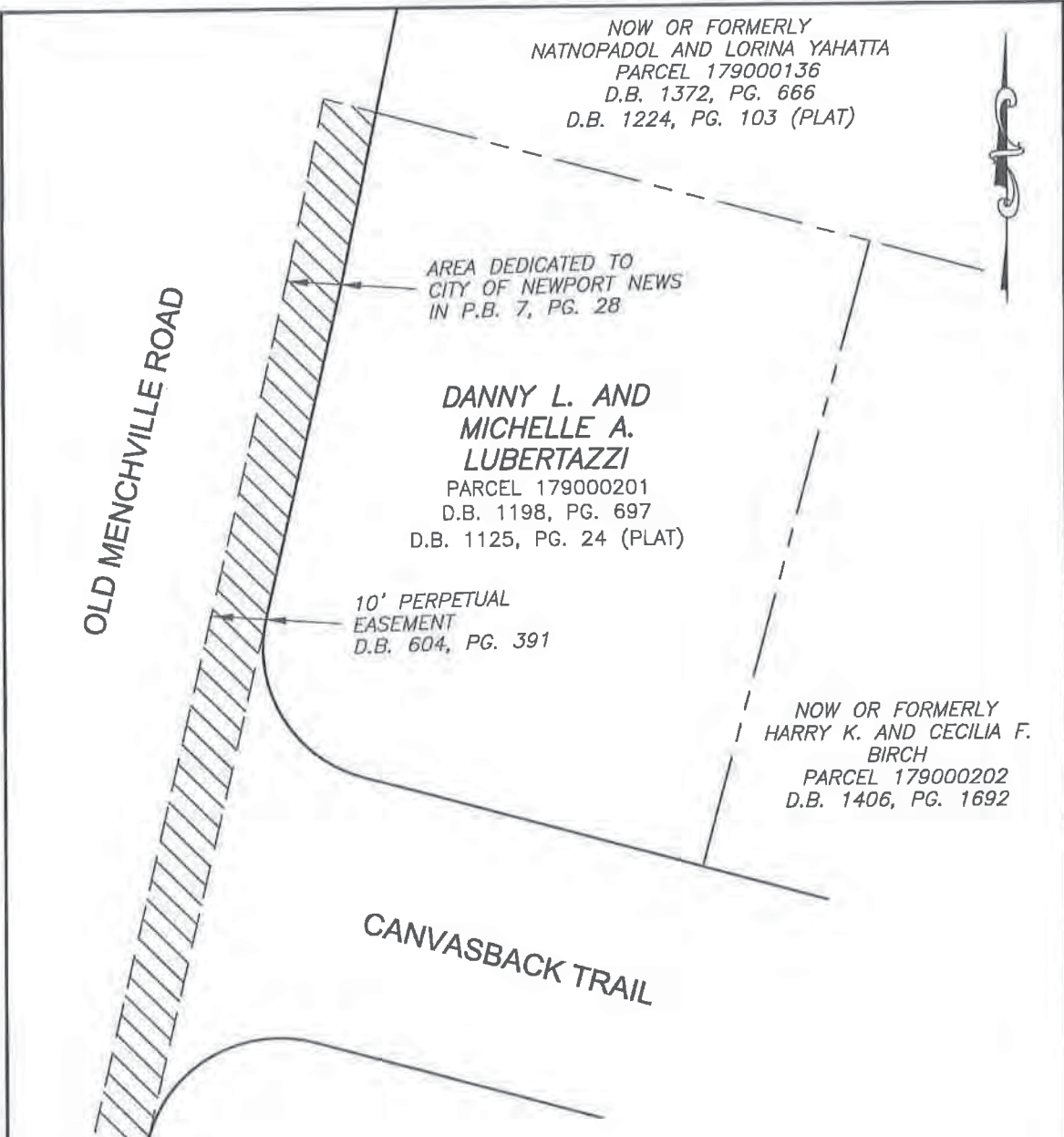
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER D.B. 1224, PG. 103 AND SHOWN IN ITS ENTIRETY IN D.B. 589, PG. 453.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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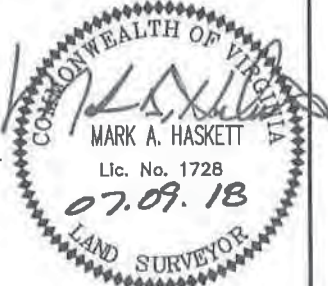
EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 589, PG. 453
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

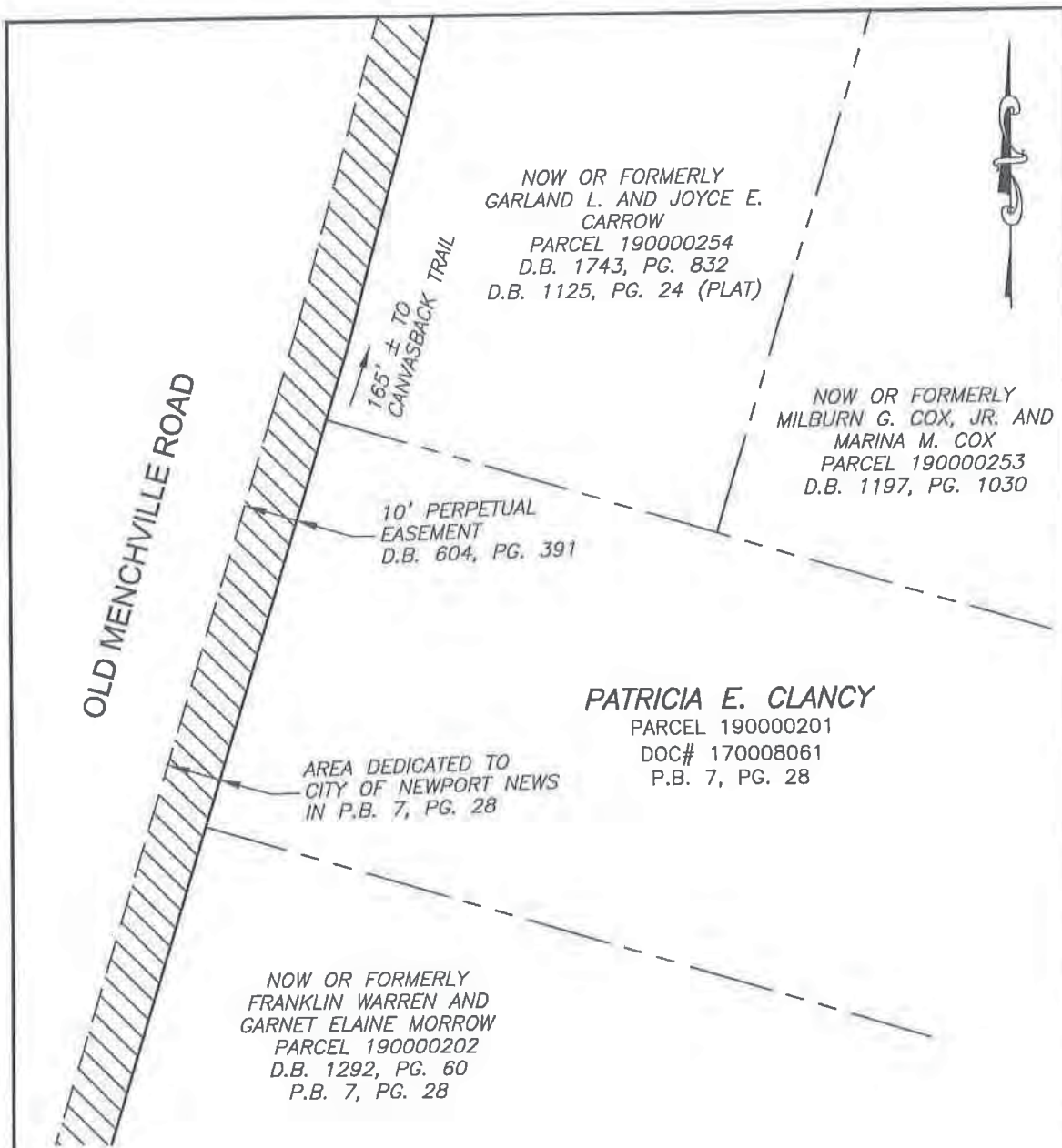
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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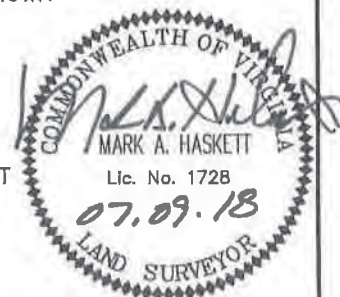
EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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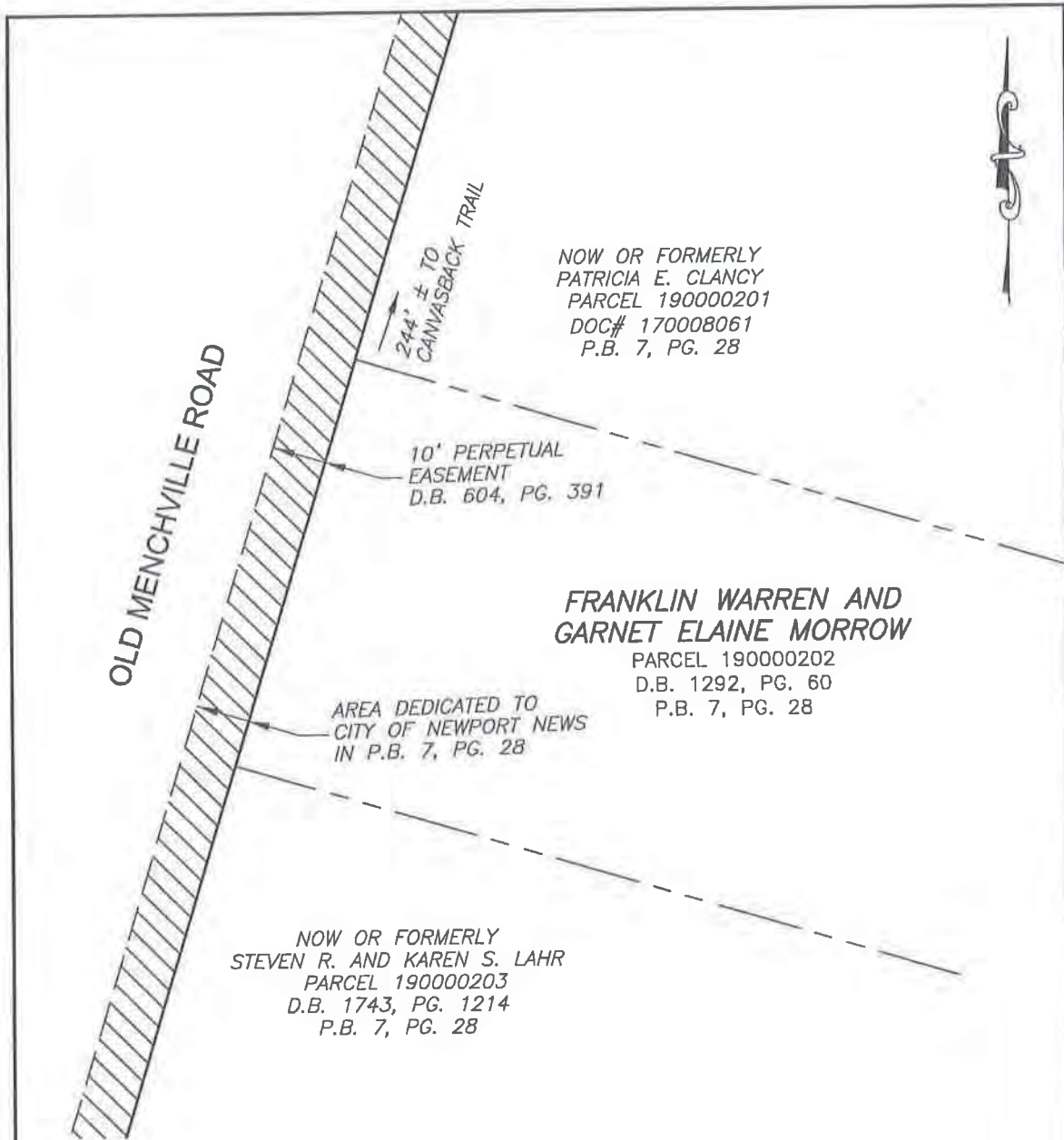
EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018

JMT PROJ. #17-10162-05A

SHEET 1 OF 1

CIP# JR011100



NOW OR FORMERLY
 PATRICIA E. CLANCY
 PARCEL 190000201
 DOC# 170008061
 P.B. 7, PG. 28

10' PERPETUAL
 EASEMENT
 D.B. 604, PG. 391

**FRANKLIN WARREN AND
 GARNET ELAINE MORROW**

PARCEL 190000202
 D.B. 1292, PG. 60
 P.B. 7, PG. 28

AREA DEDICATED TO
 CITY OF NEWPORT NEWS
 IN P.B. 7, PG. 28

NOW OR FORMERLY
 STEVEN R. AND KAREN S. LAHR
 PARCEL 190000203
 D.B. 1743, PG. 1214
 P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.

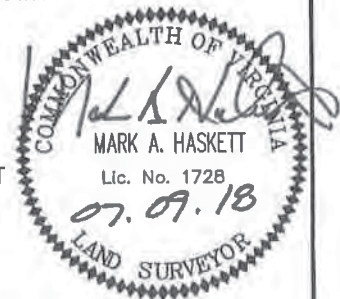


EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA

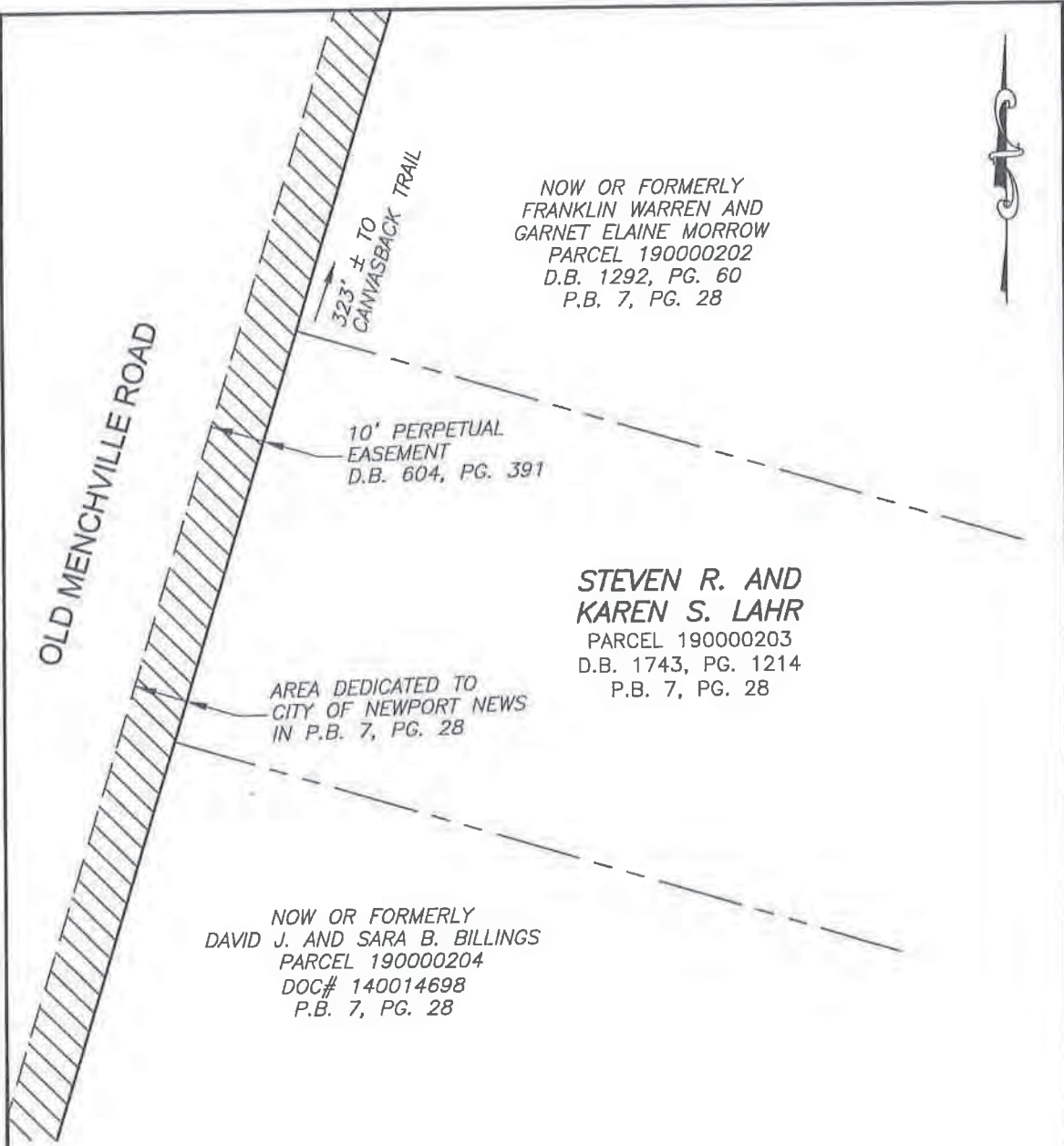
SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



JOHNSON, MIRMIRAN & THOMPSON

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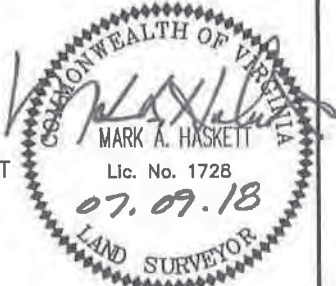
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



 DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 604, PG. 391

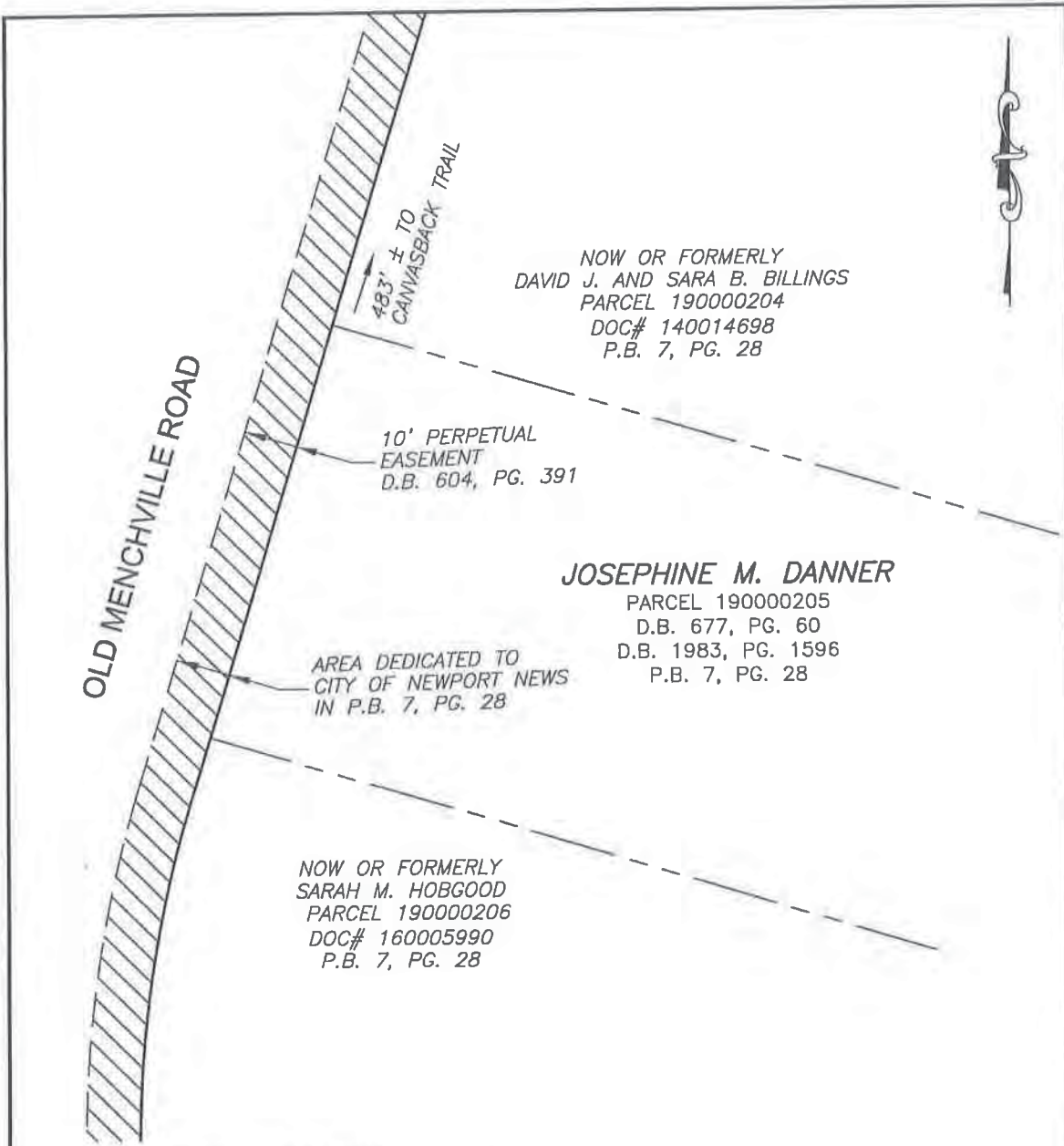
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100




NOW OR FORMERLY
 DAVID J. AND SARA B. BILLINGS
 PARCEL 190000204
 DOC# 140014698
 P.B. 7, PG. 28

10' PERPETUAL
 EASEMENT
 D.B. 604, PG. 391

JOSEPHINE M. DANNER
 PARCEL 190000205
 D.B. 677, PG. 60
 D.B. 1983, PG. 1596
 P.B. 7, PG. 28

AREA DEDICATED TO
 CITY OF NEWPORT NEWS
 IN P.B. 7, PG. 28

NOW OR FORMERLY
 SARAH M. HOBGOOD
 PARCEL 190000206
 DOC# 160005990
 P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
 RECORDED IN D.B. 604, PG. 391

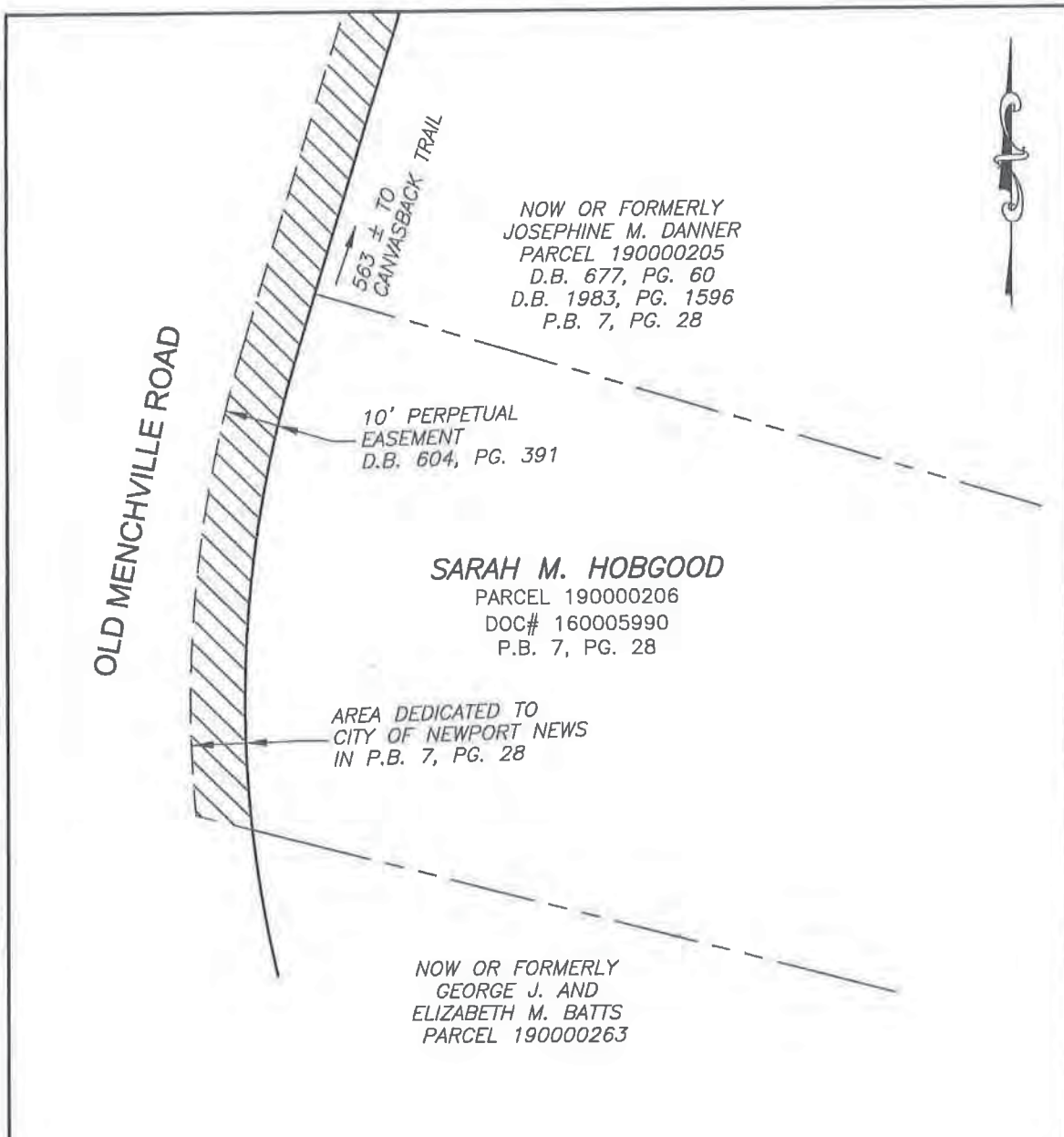
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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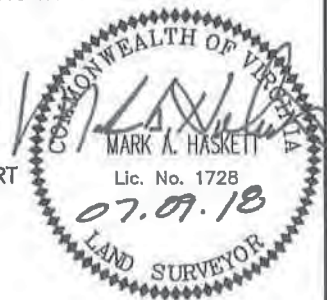
EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JUNE 25, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



 DENOTES 10' PERPETUAL EASEMENT RECORDED IN D.B. 604, PG. 391

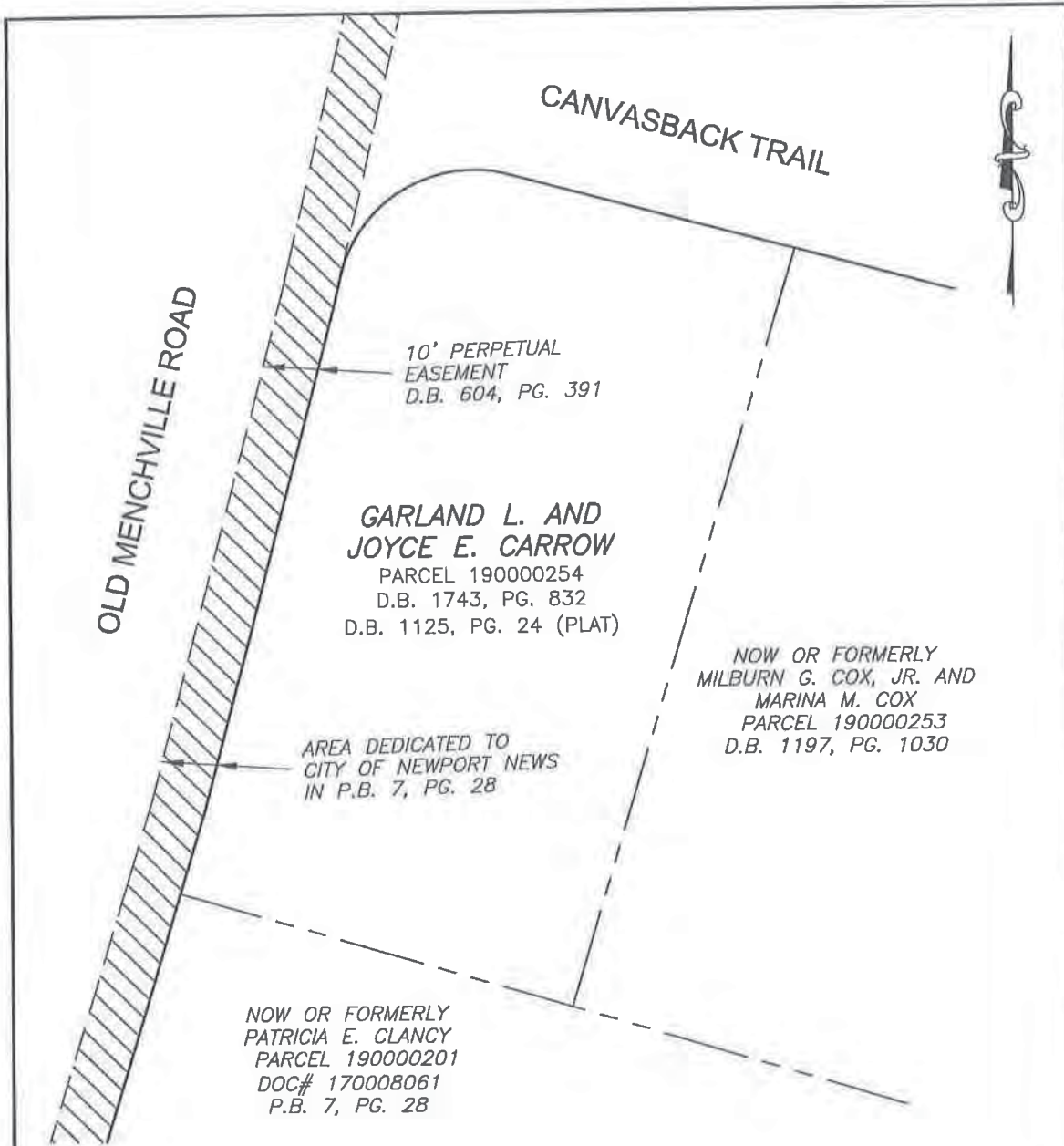
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
 10' PERPETUAL EASEMENT
 D.B. 604, PG. 391
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 JMT PROJ. #17-10162-05A
 SHEET 1 OF 1
 CIP# JR011100



**GARLAND L. AND
JOYCE E. CARROW**
PARCEL 190000254
D.B. 1743, PG. 832
D.B. 1125, PG. 24 (PLAT)

NOW OR FORMERLY
MILBURN G. COX, JR. AND
MARINA M. COX
PARCEL 190000253
D.B. 1197, PG. 1030

AREA DEDICATED TO
CITY OF NEWPORT NEWS
IN P.B. 7, PG. 28

NOW OR FORMERLY
PATRICIA E. CLANCY
PARCEL 190000201
DOC# 170008061
P.B. 7, PG. 28

 DENOTES 10' PERPETUAL EASEMENT
RECORDED IN D.B. 604, PG. 391

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 10' PERPETUAL EASEMENT NOW FALLING WITHIN CITY RIGHT-OF-WAY PER P.B. 7, PG. 28 AND SHOWN IN ITS ENTIRETY IN D.B. 604, PG. 391.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



JMT
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 280 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

EXHIBIT SHOWING LOCATION OF
10' PERPETUAL EASEMENT
D.B. 604, PG. 391
NEWPORT NEWS, VA
SCALE: 1" = 25' - JULY 2, 2018
JMT PROJ. #17-10162-05A
SHEET 1 OF 1
CIP# JRO11100



NOW OR FORMERLY
 WILBERT L. SISCO, JR. AND
 GLORIA B. SISCO
 PARCEL 170000158
 D.B. 1138, PG. 334
 P.B. 15, PG. 89

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 HEREBY VACATED

JASON D. AND
 MICHELE C. NIEMI
 PARCEL 170000126
 DOC# 170014647
 P.B. 14, PG. 2

ABBITT LANE

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 NOW IN RIGHT-OF-WAY

WARWICK BOULEVARD



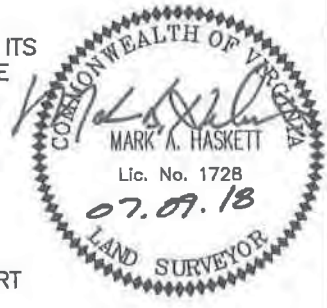
DENOTES PORTION OF 30' PERPETUAL EASEMENT
 RECORDED IN D.B. 602, PG. 129
 HEREBY VACATED



DENOTES PORTION OF 30' PERPETUAL EASEMENT
 RECORDED IN D.B. 602, PG. 129
 NOW IN RIGHT-OF-WAY

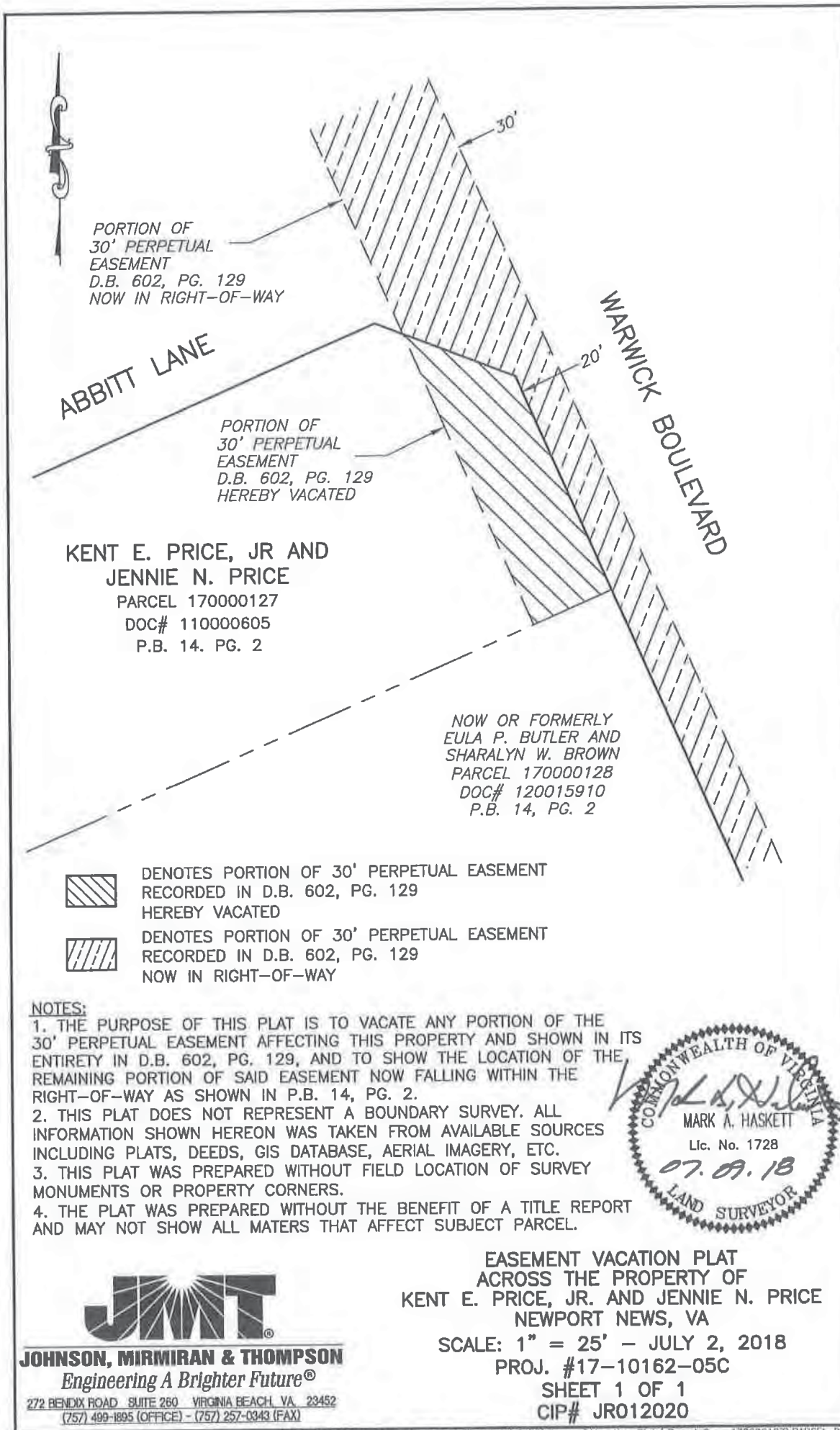
NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 JASON D. AND MICHELE C. NIEMI
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 PROJ. #17-10162-05C
 SHEET 1 OF 1
 CIP# JR012020



PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY



ABBITT LANE

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

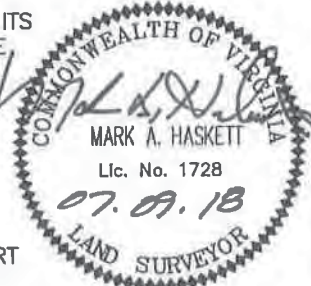
WARWICK BOULEVARD

KENT E. PRICE, JR AND
JENNIE N. PRICE
PARCEL 170000127
DOC# 110000605
P.B. 14. PG. 2

NOW OR FORMERLY
EULA P. BUTLER AND
SHARALYN W. BROWN
PARCEL 170000128
DOC# 120015910
P.B. 14, PG. 2

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
 3. THIS PLAT WAS PREPARED WITHOUT FIELD LOCATION OF SURVEY MONUMENTS OR PROPERTY CORNERS.
 4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
KENT E. PRICE, JR. AND JENNIE N. PRICE
NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018
PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



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272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
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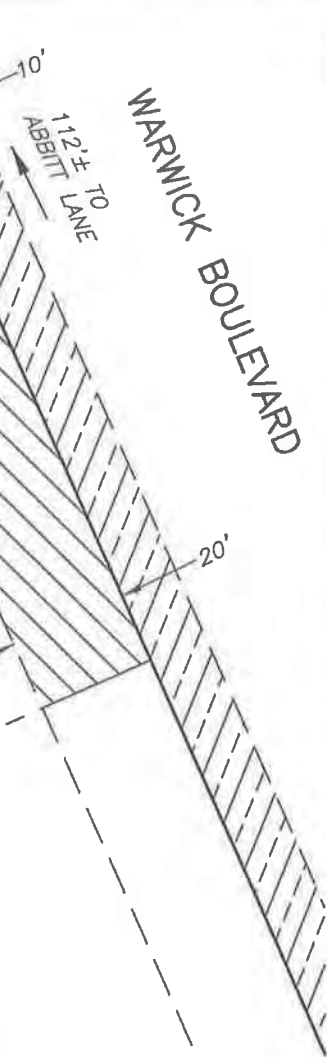
PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY



NOW OR FORMERLY
KENT E. PRICE, JR. AND
JENNIE N. PRICE
PARCEL 170000127
DOC# 110000605
P.B. 14, PG. 2

EULA P. BUTLER AND
SHARALYN W. BROWN
PARCEL 170000128
DOC# 120015910
P.B. 14, PG. 2

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

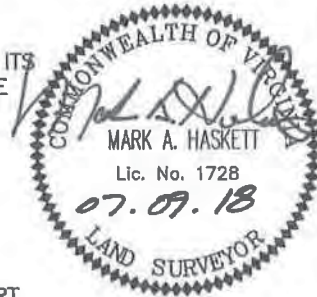
NOW OR FORMERLY
JAMES M. AND
MURIEL C. RANKINS
PARCEL 170000129
D.B. 1407, PG. 1681
P.B. 14, PG. 2



-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129
HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EULA P. BUTLER AND SHARALYN W. BROWN
NEWPORT NEWS, VA

SCALE: 1" = 25' - JULY 2, 2018
PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



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PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

NOW OR FORMERLY
EULA P. BUTLER AND
SHARALYN W. BROWN
PARCEL 170000128
DOC# 120015910
P.B. 14, PG. 2

JAMES M. AND
MURIEL C. RANKINS
PARCEL 170000129
D.B. 1407, PG. 1681
P.B. 14, PG. 2

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

NOW OR FORMERLY
LOLITA D. NEWELL
PARCEL 170000130
DOC# 160008682
P.B. 14, PG. 2

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129
HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
JAMES M. AND MURIEL C. RANKINS
NEWPORT NEWS, VA

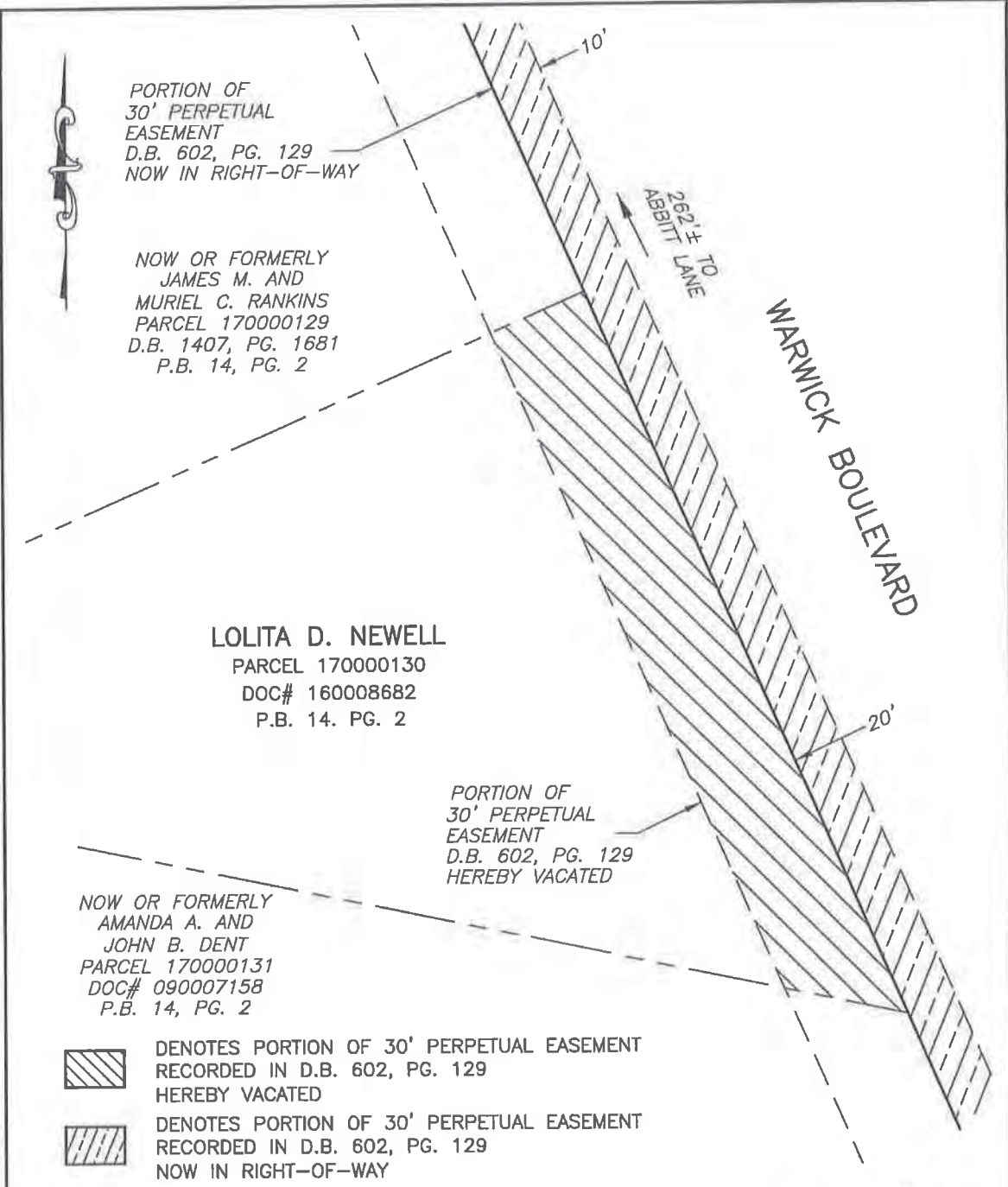
SCALE: 1" = 25' - JULY 2, 2018
PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



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Engineering A Brighter Future®

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PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

NOW OR FORMERLY
JAMES M. AND
MURIEL C. RANKINS
PARCEL 170000129
D.B. 1407, PG. 1681
P.B. 14, PG. 2

LOLITA D. NEWELL
PARCEL 170000130
DOC# 160008682
P.B. 14, PG. 2

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

NOW OR FORMERLY
AMANDA A. AND
JOHN B. DENT
PARCEL 170000131
DOC# 090007158
P.B. 14, PG. 2

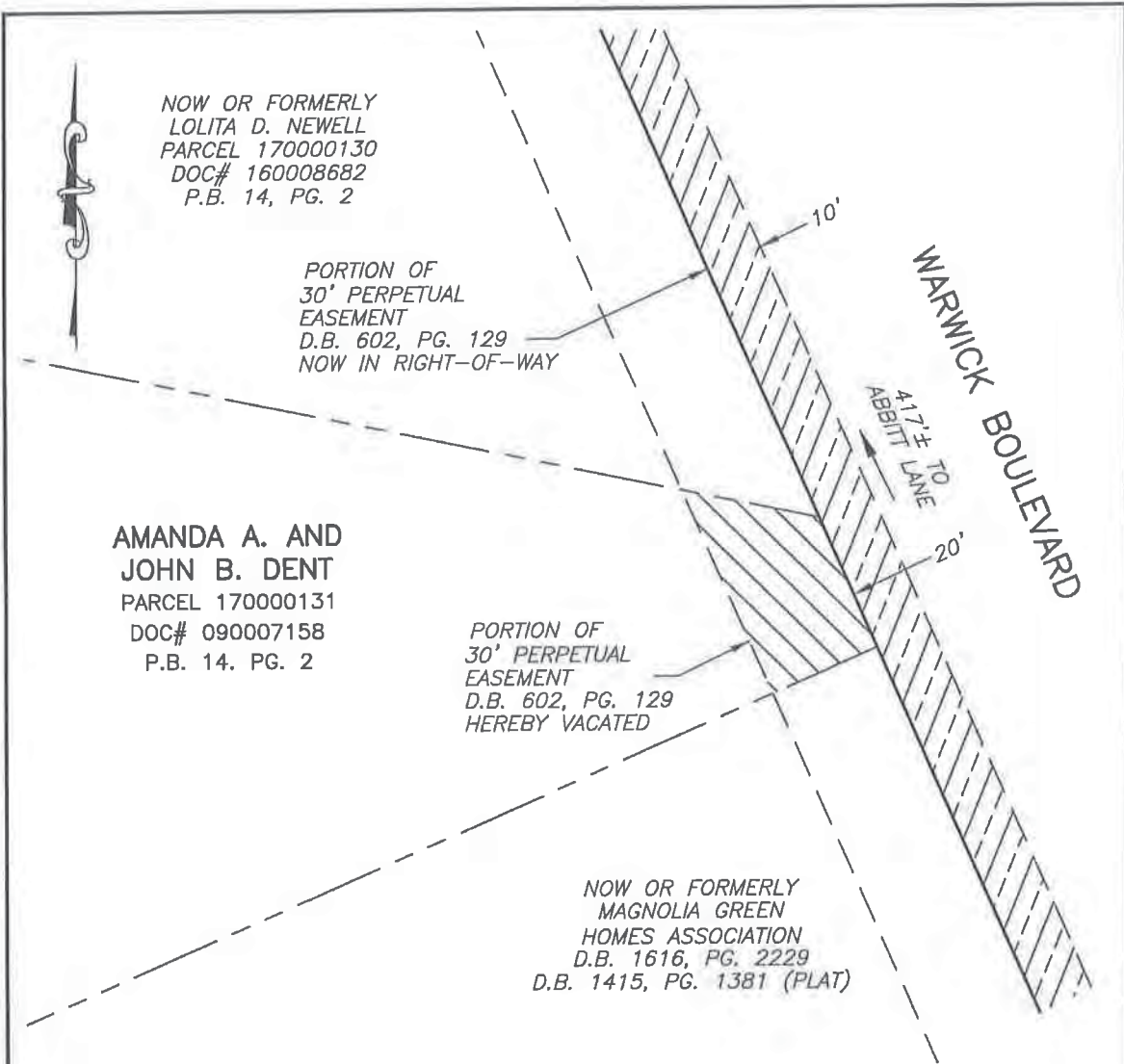
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
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**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
LOLITA D. NEWELL
NEWPORT NEWS, VA**
SCALE: 1" = 25' - JULY 2, 2018
PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020





NOW OR FORMERLY
 LOLITA D. NEWELL
 PARCEL 170000130
 DOC# 160008682
 P.B. 14, PG. 2

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 NOW IN RIGHT-OF-WAY

AMANDA A. AND
 JOHN B. DENT
 PARCEL 170000131
 DOC# 090007158
 P.B. 14, PG. 2

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 HEREBY VACATED

NOW OR FORMERLY
 MAGNOLIA GREEN
 HOMES ASSOCIATION
 D.B. 1616, PG. 2229
 D.B. 1415, PG. 1381 (PLAT)

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 14, PG. 2.
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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 AMANDA A. AND JOHN B. DENT
 NEWPORT NEWS, VA
 SCALE: 1" = 25' - JULY 2, 2018
 PROJ. #17-10162-05C
 SHEET 1 OF 1
 CIP# JR012020



NOW OR FORMERLY
 JAMES D. AND
 BRENDA F. EGNOT
 PARCEL 170000159
 D.B. 1150, PG. 163
 P.B. 15, PG. 89

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 NOW IN RIGHT-OF-WAY

WILBERT L. SISCO JR.
 AND GLORIA B. SISCO
 PARCEL 170000158
 D.B. 1138, PG. 334
 P.B. 15, PG. 89

PORTION OF
 30' PERPETUAL
 EASEMENT
 D.B. 602, PG. 129
 HEREBY VACATED

NOW OR FORMERLY
 JASON D. AND
 MICHELE C. NIEMI
 PARCEL 170000126
 DOC# 170014647
 P.B. 14, PG. 2

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN P.B. 15, PG. 89.
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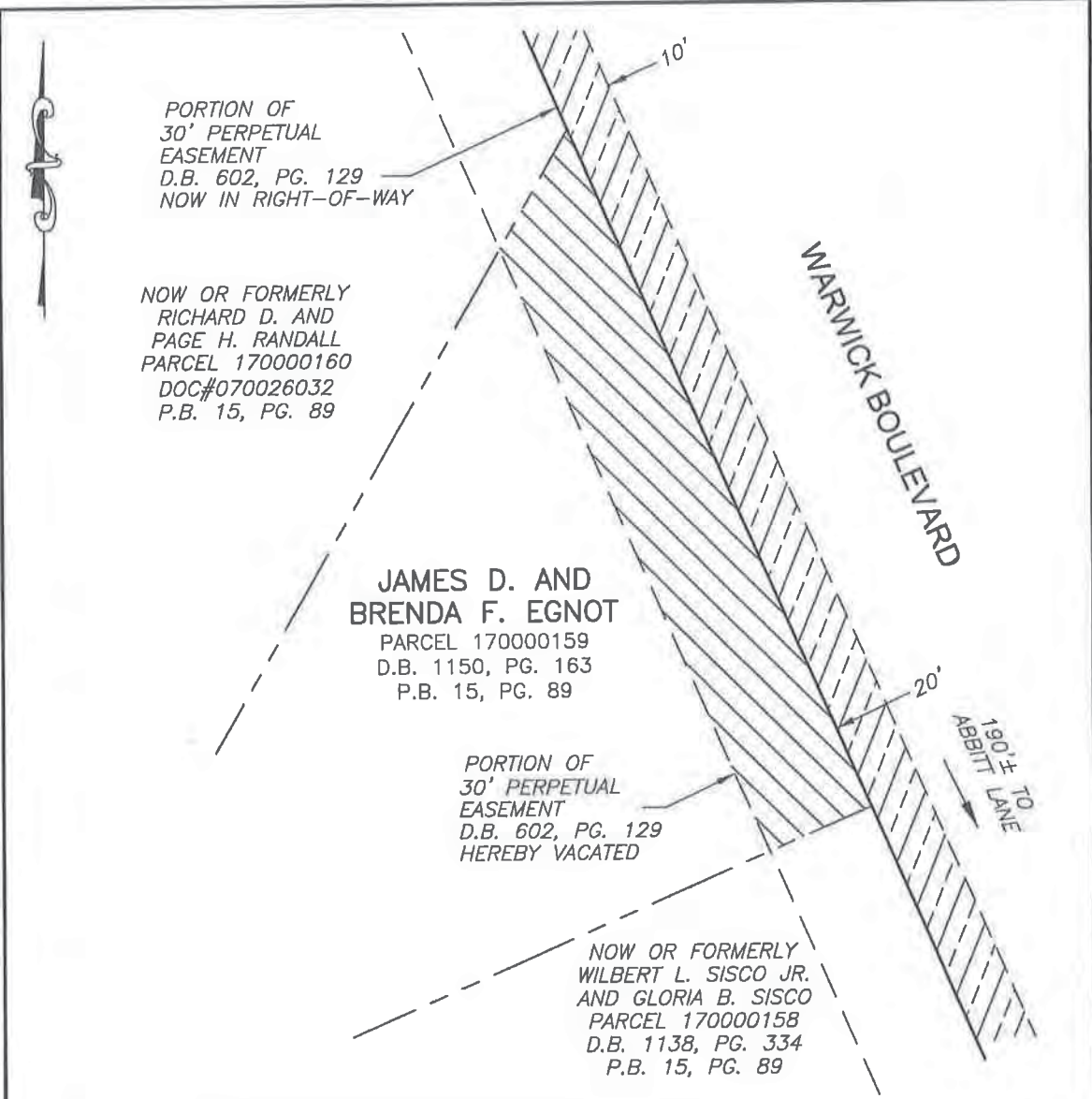


EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 WILBERT L. SISCO JR. AND GLORIA B. SISCO
 NEWPORT NEWS, VA.

SCALE: 1" = 50' - JULY 2, 2018
 JMT PROJ. #17-10162-05C
 SHEET 1 OF 1
 CIP# JR012020



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 Engineering A Brighter Future®
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 (757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

NOW OR FORMERLY
RICHARD D. AND
PAGE H. RANDALL
PARCEL 170000160
DOC#070026032
P.B. 15, PG. 89



**JAMES D. AND
BRENDA F. EGNOT**
PARCEL 170000159
D.B. 1150, PG. 163
P.B. 15, PG. 89

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

NOW OR FORMERLY
WILBERT L. SISCO JR.
AND GLORIA B. SISCO
PARCEL 170000158
D.B. 1138, PG. 334
P.B. 15, PG. 89

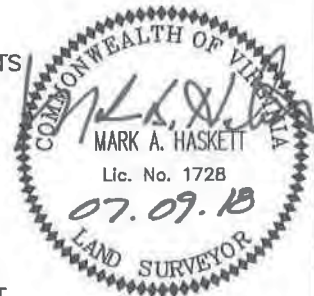
WARWICK BOULEVARD

190' ± TO
ABBITT LANE

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

NOTES:

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**EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
JAMES D. AND BRENDA F. EGNOT
NEWPORT NEWS, VA.**

SCALE: 1" = 50' - JULY 2, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



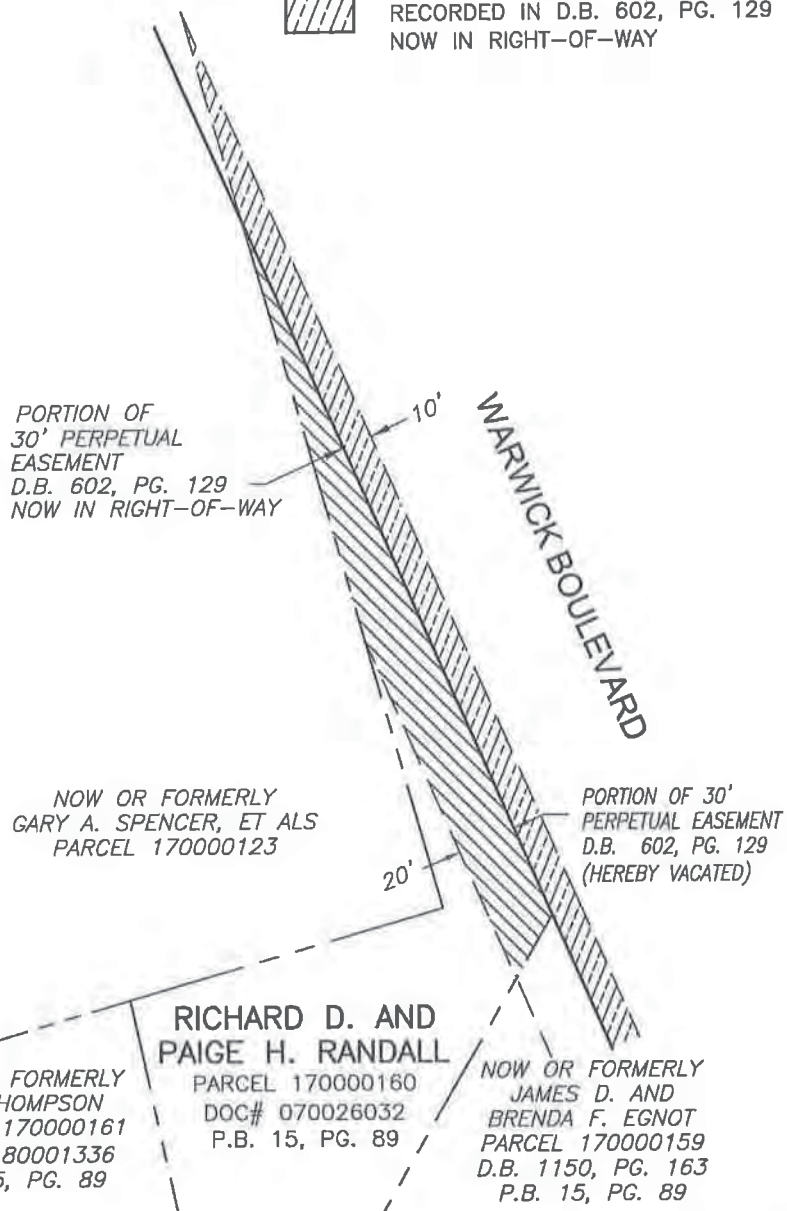
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 129
HEREBY VACATED



DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY



NOTES:

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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
RICHARD D. AND PAIGE H. RANDALL
NEWPORT NEWS, VA

SCALE: 1" = 50' - JULY 2, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

WARWICK BOULEVARD

CHARLESTON WAY
(PRIVATE STREET)

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
(HEREBY VACATED)

EMILY J. WOOLLUM
PARCEL 170000501
DOC# 130015483
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
HARRIET T. YEAPANIS
PARCEL 170000502
D.B. 1960, PG. 1410
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

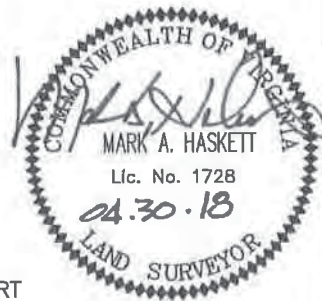
SAVANNAH COURT (PRIVATE STREET)



DENOTES PORTION OF PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 129
HEREBY VACATED

NOTES:

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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
EMILY J. WOOLLUM
NEWPORT NEWS, VA
SCALE: 1" = 20' - APRIL 25, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

WARWICK BOULEVARD

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
(HEREBY VACATED)

HARRIET T. YEAPANIS

PARCEL 170000502

D.B. 1960, PG. 1410

D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
EMILY J. WOOLLUM
PARCEL 170000501
DOC# 130015483
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
THEODORE D. AND THELMA L.
JENKINS
PARCEL 170000503
DOC# 090008577
D.B. 1415, PG. 1381 (PLAT)

30' TO
CHARLESTON WAY

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

SAVANNAH COURT

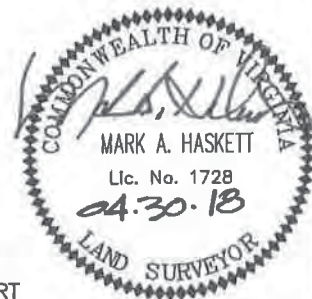
(PRIVATE STREET)



DENOTES PORTION OF PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 129
HEREBY VACATED

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129.
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4. THE PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATERS THAT AFFECT SUBJECT PARCEL.



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Engineering A Brighter Future®

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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
HARRIET T. YEAPANIS
NEWPORT NEWS, VA
SCALE: 1" = 20' - APRIL 25, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

WARWICK BOULEVARD



PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
(HEREBY VACATED)

**THEODORE D. AND
THELMA L. JENKINS**

PARCEL 170000503
DOC# 090008577
D.B. 1415, PG. 1381
(PLAT)


NOW OR FORMERLY
HARRIET T. YEAPANIS
PARCEL 170000502
D.B. 1960, PG. 1410
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
CHARLES W. AND JACQUELINE
P. MILLER
PARCEL 170000504
DOC# 100016516
D.B. 1415, PG. 1381 (PLAT)

55' TO
CHARLESTON WAY

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

SAVANNAH COURT
(PRIVATE STREET)

 DENOTES PORTION OF PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 129
HEREBY VACATED

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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
THEODORE D. AND THELMA L. JENKINS
NEWPORT NEWS, VA
SCALE: 1" = 20' - APRIL 25, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

WARWICK BOULEVARD

PORTRION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
(HEREBY VACATED)

**CHARLES W. AND
JACQUELINE P.
MILLER**

PARCEL 170000504
DOC# 100016516

D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
THEODORE D. AND THELMA L.
JENKINS
PARCEL 170000503
DOC# 090008577
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
WALTER S. PRICE
PARCEL 170000505
DOC# 170011124
D.B. 1415, PG. 1381 (PLAT)

90' TO
CHARLESTON WAY

NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

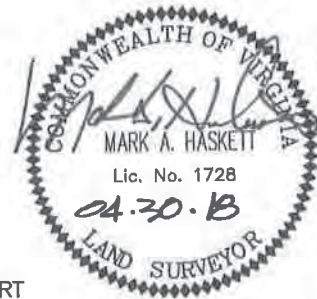
SAVANNAH COURT
(PRIVATE STREET)



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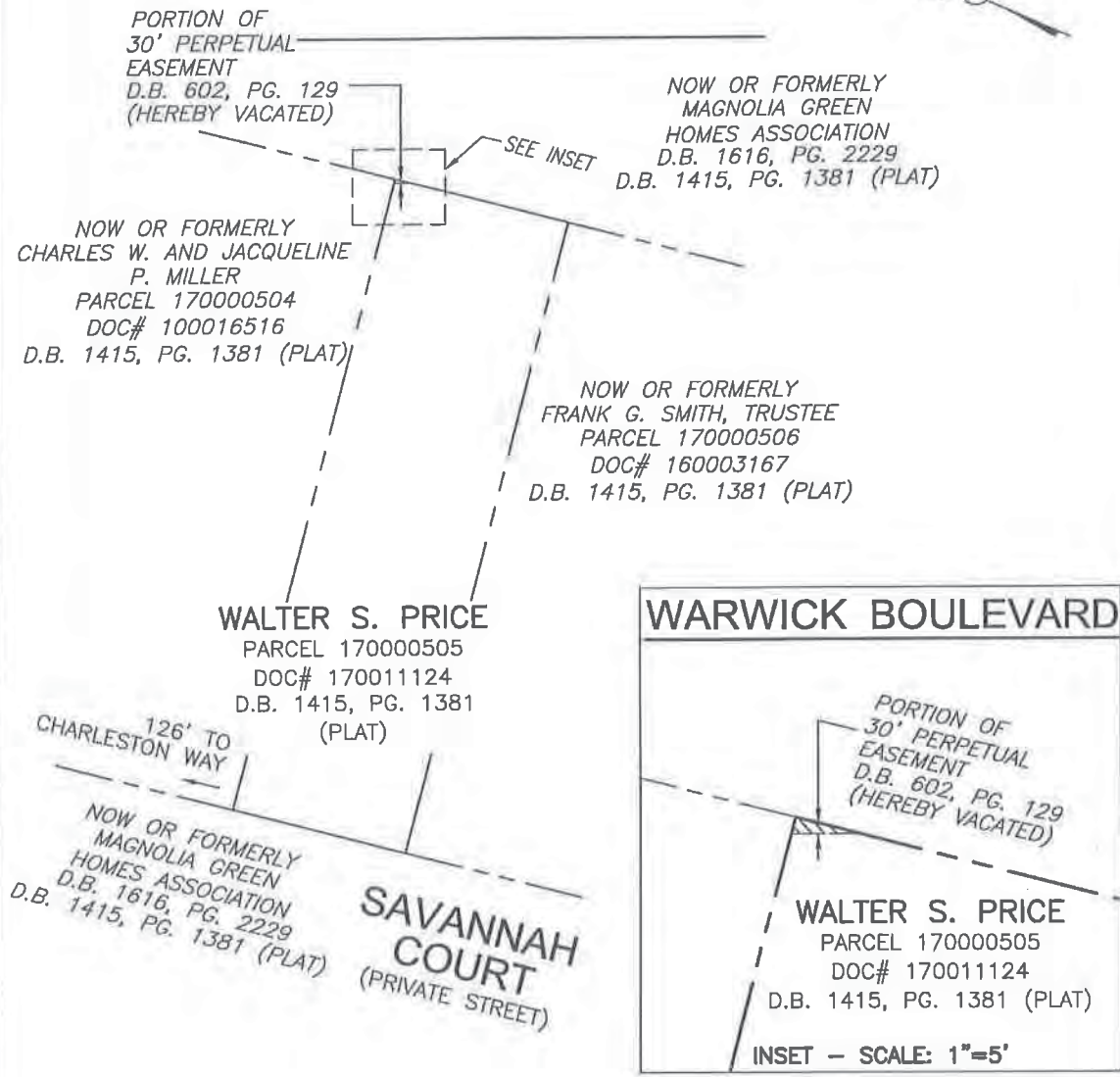
EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CHARLES W. AND JACQUELINE P. MILLER
NEWPORT NEWS, VA

SCALE: 1" = 20' - APRIL 25, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



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WARWICK BOULEVARD



DENOTES PORTION OF PERPETUAL EASEMENT
 RECORDED IN D.B. 602, PG. 129
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EASEMENT VACATION PLAT
 ACROSS THE PROPERTY OF
 WALTER S. PRICE
 NEWPORT NEWS, VA
 SCALE: 1" = 20' - APRIL 25, 2018
 JMT PROJ. #17-10162-05C
 SHEET 1 OF 1
 CIP# JR012020



1475'± TO
ABBITT LANE

NOW OR FORMERLY
CHARLES A. HUFFMAN
III, TRUSTEE
PARCEL 181000520
D.B. 1479, PG. 619

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 419
D.B. 604, PG. 187
D.B. 609, PG. 481
HEREBY VACATED

20'

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 419
D.B. 604, PG. 187
D.B. 609, PG. 481
NOW IN RIGHT-OF-WAY

WARWICK BOULEVARD

10'

BREMOND LODGE
#241 AF & AM
TRUST
PARCEL 181000428
D.B. 1034, PG. 171

NOW OR FORMERLY
CITY OF NEWPORT NEWS
SCHOOL BOARD
PARCEL 181000429
D.B. 456, PG. 238



DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 419, D.B. 604,
PG. 187 AND D.B. 609, PG. 481 (HEREBY VACATED)



DENOTES PORTION OF 30' PERPETUAL EASEMENT
RECORDED IN D.B. 602, PG. 419, D.B. 604,
PG. 187 AND D.B. 609, PG. 481 (NOW IN RIGHT-OF-WAY)

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 419, D.B. 604, PG. 187 AND D.B. 609, PG. 481 AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN GIS RECORDS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. ALL INFORMATION SHOWN HEREON WAS TAKEN FROM AVAILABLE SOURCES INCLUDING PLATS, DEEDS, GIS DATABASE, AERIAL IMAGERY, ETC.
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
BREMOND LODGE #241 AF & AM TRUST
NEWPORT NEWS, VA

SCALE: 1" = 100' - JULY 2, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020



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NOW OR FORMERLY
MAGNOLIA GREEN
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

1160' ± TO
ABBITT LANE

WARWICK BOULEVARD



CHARLES A.
HUFFMAN, III,
TRUSTEE

PARCEL 181000520
D.B. 1479, PG. 619

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 601, PG. 470
D.B. 602, PG. 419
D.B. 604, PG. 187
HEREBY VACATED

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 419
D.B. 604, PG. 187
D.B. 609, PG. 481
NOW IN RIGHT-OF-WAY

NOW OR FORMERLY
BRENMOND LODGE
#241 AF & AM TRUST
PARCEL 181000428
D.B. 1034, PG. 171

-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 601, PG. 470, D.B. 602, PG. 419 AND D.B. 604, PG. 187 (HEREBY VACATED)
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 601, PG. 470, D.B. 602, PG. 419 AND D.B. 604, PG. 187 (NOW IN RIGHT-OF-WAY)

NOTES:

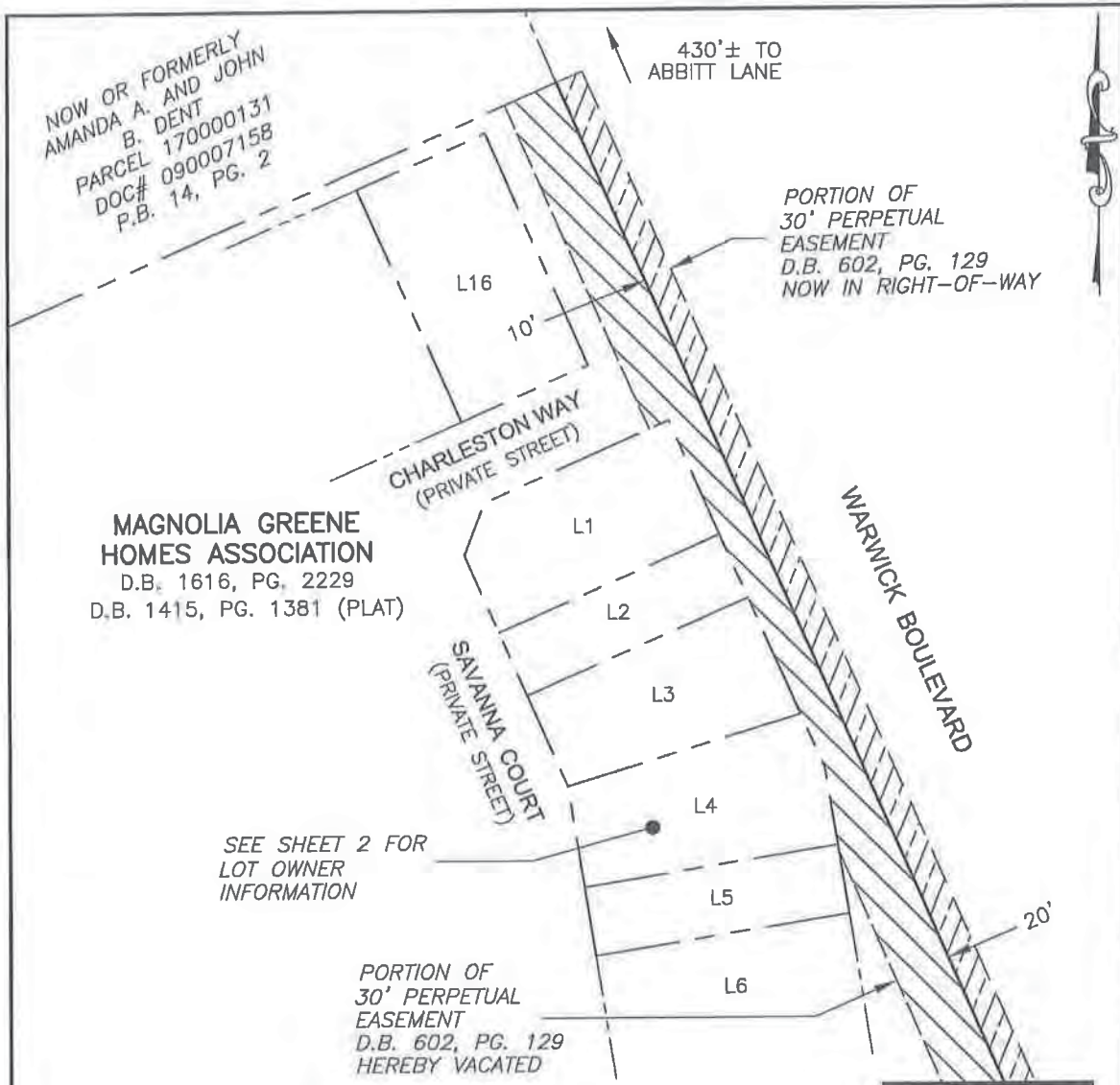
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 601, PG. 470, D.B. 602, PG. 419 AND D.B. 604, PG. 187 AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN GIS RECORDS.
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
CHARLES A. HUFFMAN, III, TRUSTEE
NEWPORT NEWS, VA
SCALE: 1" = 100' - JULY 2, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 1
CIP# JR012020

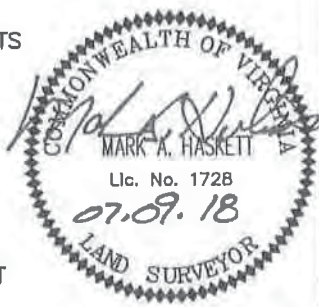


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-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 HEREBY VACATED
-  DENOTES PORTION OF 30' PERPETUAL EASEMENT RECORDED IN D.B. 602, PG. 129 NOW IN RIGHT-OF-WAY

- NOTES:**
1. THE PURPOSE OF THIS PLAT IS TO VACATE ANY PORTION OF THE 30' PERPETUAL EASEMENT AFFECTING THIS PROPERTY AND SHOWN IN ITS ENTIRETY IN D.B. 602, PG. 129, AND TO SHOW THE LOCATION OF THE REMAINING PORTION OF SAID EASEMENT NOW FALLING WITHIN THE RIGHT-OF-WAY AS SHOWN IN D.B. 1415, PG. 1381.
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EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
MAGNOLIA GREENE HOMES ASSOCIATION
NEWPORT NEWS, VA
SCALE: 1" = 50' - JULY 2, 2018
JMT PROJ. #17-10162-05C
SHEET 1 OF 2
CIP# JR012020

MATCHLINE - SEE SHEET 1

MAGNOLIA GREENE
HOMES ASSOCIATION
D.B. 1616, PG. 2229
D.B. 1415, PG. 1381 (PLAT)

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
NOW IN RIGHT-OF-WAY

10'

20'

PORTION OF
30' PERPETUAL
EASEMENT
D.B. 602, PG. 129
HEREBY VACATED

INSTRUMENT 180016227
RECORDED IN THE CLERK'S OFFICE OF
NEWPORT NEWS CIRCUIT COURT ON
DECEMBER 13, 2018 AT 02:36 PM
GARY S. ANDERSON, CLERK
RECORDED BY: VLS

L1 NOW OR FORMERLY
EMILY J. WOOLLUM
PARCEL 170000501
DOC# 130015483
D.B. 1415, PG. 1381 (PLAT)

L2 NOW OR FORMERLY
HARRIET T. YEAPANIS
PARCEL 170000502
D.B. 196, PG. 1410
D.B. 1415, PG. 1381 (PLAT)

L3 NOW OR FORMERLY
THEODORE D. AND THELMA L.
JENKINS
PARCEL 170000503
DOC# 090008577
D.B. 1415, PG. 1381 (PLAT)

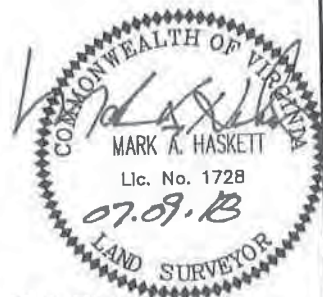
L4 NOW OR FORMERLY
CHARLES W. AND
JACQUELINE P. MILLER
PARCEL 170000504
DOC# 100016516
D.B. 1415, PG. 1381 (PLAT)

NOW OR FORMERLY
CHARLES A. HUFFMAN III,
TRUSTEE
PARCEL 181000520
D.B. 1479, PG. 619

L5 NOW OR FORMERLY
WALTER S. PRICE
PARCEL 170000505
DOC# 170011124
D.B. 1415, PG. 1381 (PLAT)

L6 NOW OR FORMERLY
AMANFRANK G. SMITH, TRUSTEE
PARCEL 170000506
DOC# 160003167
D.B. 1415, PG. 1381 (PLAT)

L16 NOW OR FORMERLY
DOUGLAS L. AND
SANDRA N. JOHNSON
PARCEL 170000516
DOC# 080010887
D.B. 1415, PG. 1381 (PLAT)



EASEMENT VACATION PLAT
ACROSS THE PROPERTY OF
MAGNOLIA GREEN HOMES ASSOCIATION
NEWPORT NEWS, VA

SCALE: 1" = 50' - JULY 2, 2018

JMT PROJ. #17-10162-05C

SHEET 2 OF 2

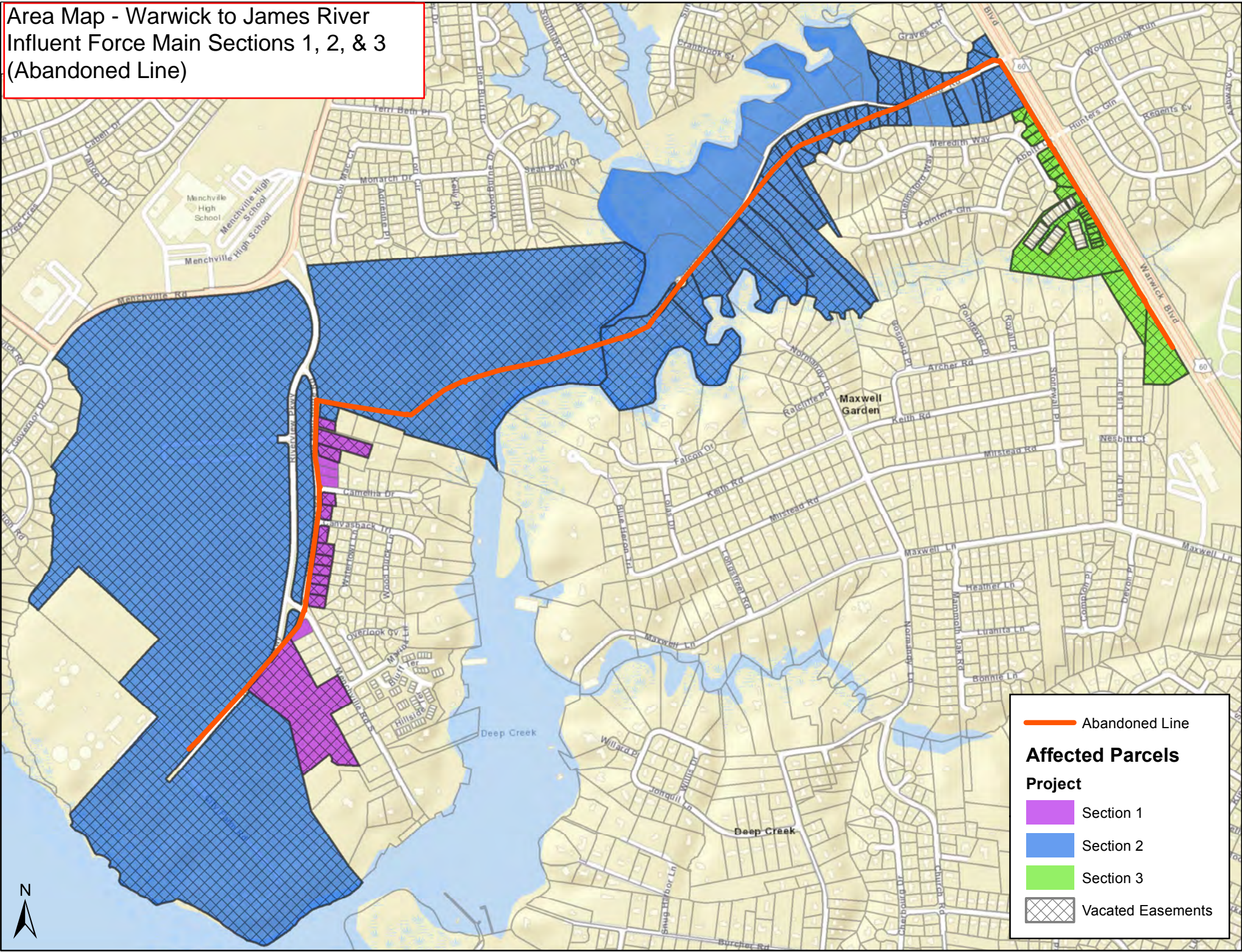
CIP# JR012020



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(757) 499-1895 (OFFICE) - (757) 257-0943 (FAX)

Area Map - Warwick to James River
Influent Force Main Sections 1, 2, & 3
(Abandoned Line)



— Abandoned Line

Affected Parcels

Project

- Section 1
- Section 2
- Section 3
- Vacated Easements



HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #9

AGENDA ITEM 12. – Eastern Shore Sanitary Sewer Transmission Force Main Study

**HAMPTON ROADS SANITATION DISTRICT
GENERAL ENGINEERING SERVICES
EASTERN SHORE SANITARY SEWER TRANSMISSION FORCE MAIN STUDY**

SCOPE OF BASIC SERVICES

Background

HRSD is seeking engineering services to perform a conceptual level study for a new transmission force main extending from Nassawadox to the wastewater treatment plant (WWTP) in Onancock (potentially through the Accomack County Industrial Park system) and from the Town of Accomack to the Accomack County system existing in the Onley area and then to the Onancock WWTP. The force main shall be designed to connect to existing sanitary sewer systems along the route including the systems serving Nassawadox, Exmore, Olney and Accomack. The force main shall have adequate capacity to convey sanitary sewer flow from future collection systems in this corridor based on current land use designations and population projections through 2050. This study is solely for the force main and required pumping stations and appurtenances and specifically excludes new or expanded collection systems. Connection of existing systems to the force main is included in this conceptual study.

The conceptual study will include sizing of the force main, routing of the force main, as well as location and sizing of pumping stations and other appurtenances. All construction shall be in accordance with HRSD standards. Piping shall be located within existing public rights of way wherever possible.

The study will be based on a new force main and will not include use of any existing sewers to serve as portions of the transmission force main. The force main shall be designed and constructed for future connections at specific locations. No intermediary connections will be permitted.

An assessment of the Onancock WWTP's ability to treat the flow conveyed by the force main shall be included in the conceptual report.

Final report shall include a Class 5 estimate of probable construction costs as well as an estimate of operation and maintenance costs for the force main and associated pumping stations.

A minimum of three meetings with a local steering committee are to be included – one at the commencement of the study – one to review the draft concepts – and a meeting to present the final study to the committee and the public. Additional site visits and meetings with community leaders will be as required to perform the study.

Scope of Services

HDR will perform the specific tasks listed below. Davis, Bowen & Friedel (DBF) will be a subconsultant to HDR.

1. Manage and administer the project. A budget has been established to manage and administer the project which will include coordination with HRSD and preparation of monthly invoices and progress reports.
2. Conduct kick-off meeting with HRSD.
3. Gather and review existing information.
4. Field visits to collect confirm information and collect missing information.
5. Define service area and primary existing sewer system facilities and depict on mapping.
6. Compile flow projections, including peak and average flows based on existing comprehensive plans and flow data made available.
7. Perform one-half day site visit to the Onancock WWTP to assess condition and collect any required additional information for its analysis.
8. Perform fatal-flaw capacity analysis of the Onancock WWTP to confirm ability to accept average and peak projected flows.
9. Develop conceptual design of proposed force main system (pipe sizes, routing, pump stations, facility siting, etc.). Identify easement and property acquisition needs.
10. Prepare mapping of proposed transmission force main system.
11. Prepare Class 5 capital cost estimate for proposed transmission force main system.
12. Conduct study findings review meeting with HRSD.
13. Address comments from review meeting, then prepare and issue draft report.
14. Conduct draft report review meeting with HRSD.
15. Address comments on draft report, then prepare and issue final report.
16. Attend one public meeting to present the final report.

Deliverables

HDR will provide the following deliverables to HRSD:

1. Draft Report – Electronic PDF.
2. Final Report – Electronic PDF.

Payment

HDR will perform the Basic Services described herein for a lump sum amount of \$108,458.

Schedule

The project will be implemented based on the schedule of the following milestone dates:

1. Conduct Kick-off Meeting – Within 2 Weeks from Notice to Proceed.
2. Draft Report – 14 weeks following Kick-off Meeting
3. Final Report – 4 weeks following receipt of HRSD’s comments on Draft Report.

Information Needs

1. HRSD to provide maximum allowable pressure value for the transmission force main.
2. Copy of Onancock WWTP design drawings and design basis report are made available to HDR/DBF.
3. Copy of the comprehensive plans for Accomack and Northampton Counties are made available to HDR/DBF.
4. HDR/DBF allowed access to meet with local planning and utility staff to gather existing information.

Assumptions

HDR has developed the scope of services for the project based on the following assumptions.

1. Use existing comprehensive plans for Year 2050 flow projections.
2. No condition assessment of the existing treatment/collection/pumping/force main systems included, with the exception that a walk-through of the Onancock WWTP will be performed to assess the general condition of the unit processes and their treatment capacity status relative to the design intent.
3. Capital and O&M cost estimates will be limited to the proposed force main and its associated pumping stations and appurtenances.
4. Design for maximum operating pressure in proposed force main as defined by HRSD.
5. Permitting requirements will not be addressed, including environmental permitting.
6. This study will not evaluate alternative materials or routes for the transmission force main system. A pressurized system will be the basis for the conceptual design and costs estimates.
7. The study will be based on installing new pumping stations to convey flow from the existing collection systems into the proposed transmission force main. Upgrades to existing pumping stations will not be evaluated.
8. This study will not address user rates or funding sources.

Additional Services

1. Conduct additional meetings as requested by HRSD. The cost of each meeting is estimated at \$4,469.

HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #10

AGENDA ITEM 13. Capital Improvement Program (CIP) Quarterly Update



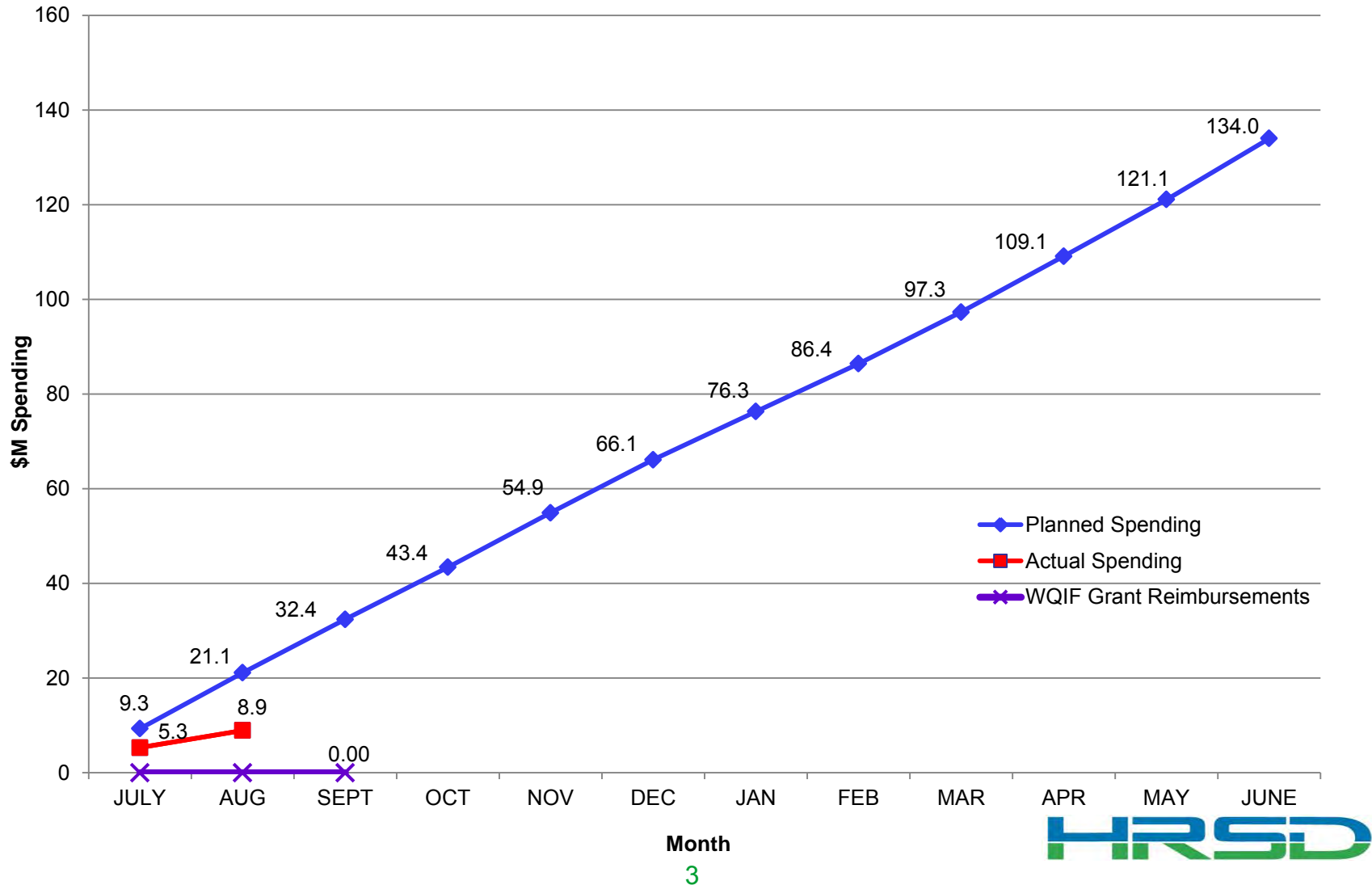
Capital Improvement Program Commission Briefing

October 23, 2018

- CIP Expenditures for FY-2019
- Asset Management Program Update
- Consent Decree/SSO Reduction-Project Updates
- Consent Decree/Sewer Rehabilitation Plan – Project Updates
- Project Focus:
 - Atlantic Treatment Plant Administration Building Renovation and Expansion

CIP Expenditures for FY-2019

Cumulative Monthly Expenditures & Reimbursements



CIP Expenditures for FY-2019

CIP Projects with Largest Spending Projections in FY-2019:

Project Name	Planned FY-2019 CIP Spending
Atlantic Treatment Plant Thermal Hydrolysis Process (Cambi)	\$20,000,000
Virginia Initiative Plant Nutrient Reduction Improvements – Contact B	\$6,379,000
Program Management of SWIFT Full Scale Implementation	\$6,154,000

Atlantic Treatment Plant Thermal Hydrolysis Process and FOG Receiving Station

Engineer(s):

HDR Engineering, Inc. / Brown & Caldwell

Construction Manager:

Crowder Construction Company

Schedule Completion:

October 2020

Project Value: \$67.2M

Funding:

HRSD Revenue Bond
VRLF Loan



Virginia Initiative Plant Nutrient Reduction Improvements

Engineer:

HDR Engineering, Inc.

Contractor:

Contract A – PC Construction

Contract B – MEB General
Contractors

Procurement – Emergency
Generators

Schedule Completion (Contract B):

March 2017 – Nutrient Work

November 2018 – Other Work

Project Value: \$161.4M

Funding: HRSD Revenue Bond
WQIF Grant (\$46.8M)



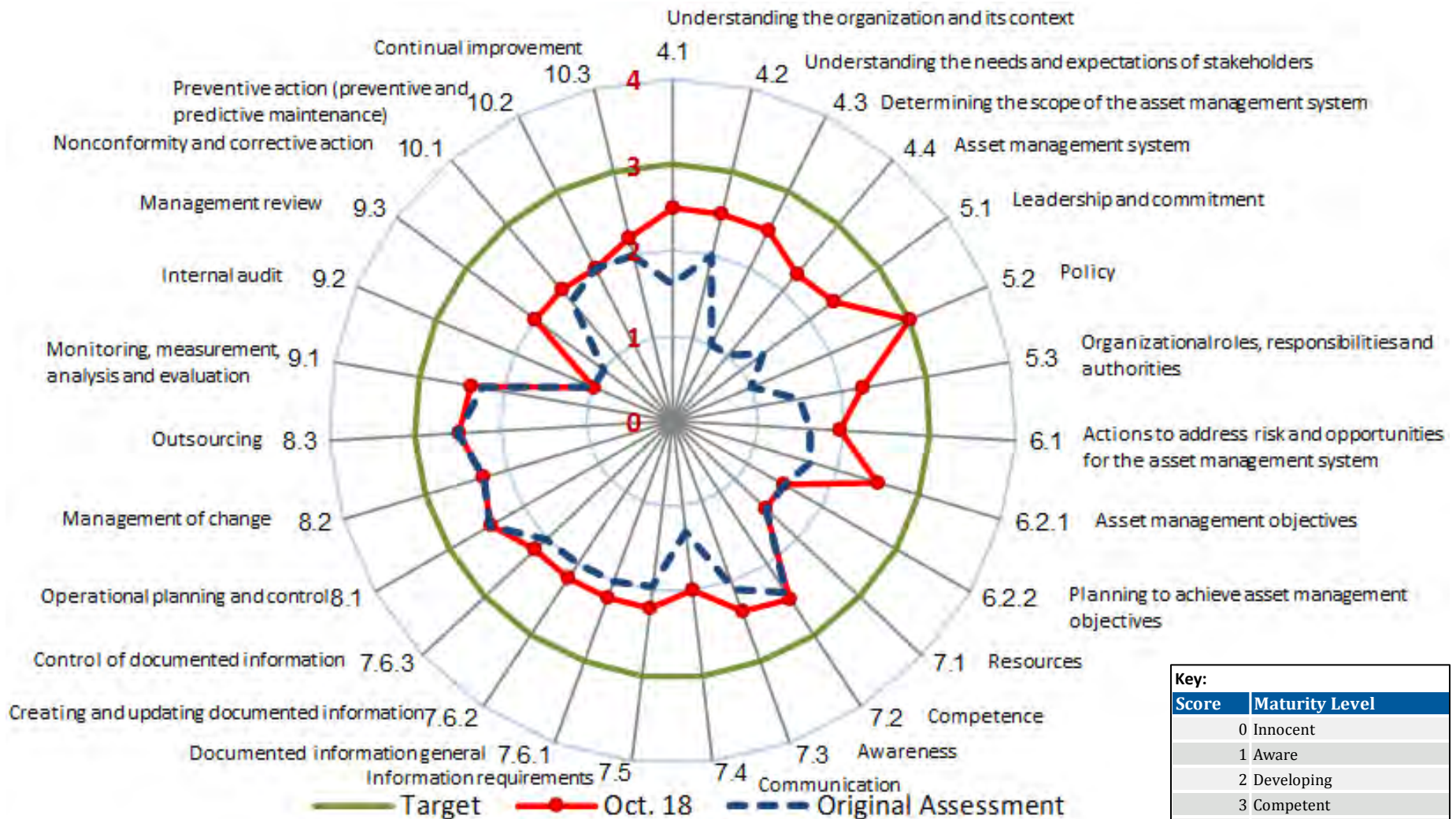
Asset Management Program Update

HRSD ASSET MANAGEMENT PROGRAM ROADMAP



Asset Management Program Update (cont.)

ISO 55001 Asset Management Maturity Score



Key:	
Score	Maturity Level
0	Innocent
1	Aware
2	Developing
3	Competent
4	Optimizing / Excellent

Progress April 2018 to October 2018

- Restructured Asset Management Steering Team
- Established guidelines for identifying asset failure modes
- Asset Management Strategy developed
- Developing Risk Management Procedure and updating asset risk criteria
- Defined Roles and Responsibilities for asset management
- Developing Asset Management Framework on SharePoint site
- Commenced development of Asset Management Plan for Atlantic Treatment Plant

Consent Decree/SSO Reduction - Project Updates

- 33 CIP projects were included in the original Federal Consent Decree.
- 18 CIP projects were added to the Federal Consent Decree as part of the negotiation to consider regionalization of the sanitary sewer system.
- These projects involve improvements to the interceptor sewer system and numerous pump stations.
- HRSD has completed these projects.
- 2 CIP projects were added to the Federal Consent Decree as part of the final negotiation to implement the Regional Wet Weather Program. HRSD has until **Dec. 31, 2018** to complete these projects.

Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
52	Virginia Initiative Plant Nutrient Reduction Improvements, Contract A	\$18,000,000	\$18,343,768	Complete
53	Virginia Initiative Plant Nutrient Reduction Improvements, Contract B	\$125,000,000	\$135,284,000	Construction
		\$143,000,000	\$153,627,768	

Consent Decree/Sewer Rehabilitation Plan – Project Updates

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

Consent Decree/Sewer Rehabilitation Plan – Project Updates

	Project Name	Project Status	Total CIP Cost
Phase 0			
GN014300	North Shore Operations Unvented High Spot Correction	Complete	\$ 1,602,832
VP012100	State Street Pump Station Electrical Modifications	Complete	\$ 2,089,201
Phase 1			
BH012700	Hampton Trunk Sewer Extension Division B - Claremont Force Main Replacement	Construction	\$ 4,876,709
BH014700	Boat Harbor Outlet Sewer Improvements	Design	\$ 6,486,452
BH014800	Jefferson Avenue Extension Gravity Improvements	Design	\$ 3,123,247
BH015000	Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements	Construction	\$ 6,607,042
CE010400	Independence Boulevard Pressure Reducing Station Modifications	Design	\$ 1,869,200
CE011700	Western Trunk Force Main Replacement	Design	\$ 1,987,802
GN011700	Pump Station Generators and Standby Pump Upgrades	Design	\$ 7,106,157
GN012130	Manhole Rehabilitation-Replacement Phase I and North Shore Siphon Chamber Rehabilitation Phase I	Design	\$ 608,725
GN012131	Manhole Rehabilitation Phase 1A (North Shore)	Proposed	\$ 1,631,203
GN012132	Manhole Rehabilitation Phase 1B	Proposed	\$ 1,631,203
GN012133	Manhole Rehabilitation Phase 1C	Proposed	\$ 1,631,203
GN012134	North Shore Siphon Chamber Rehabilitation Phase 1	Proposed	\$ 1,631,203
GN012140	Pump Station Wet Well Rehabilitation Phase I	Design	\$ 3,388,665
GN015100	Arctic Avenue Pump Station and Newtown Road Pump Station Electrical Improvements	Pre Planning	\$ 615,812
JR012100	Huxley to Middle Ground Force Main Extension	Design	\$ 4,932,185
NP011300	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	Proposed	\$ 1,483,109
NP012600	Deep Creek Interceptor Force Main Replacement	Design	\$ 6,232,922
VP014010	Ferebee Avenue Pump Station Replacement	PER	\$ 5,852,747
WB012200	North Trunk Force Main Part B Replacement	Design	\$ 1,735,250

Consent Decree/Sewer Rehabilitation Plan – Project Updates

	Project Name	Project Status	Total CIP Cost
Phase 2			
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	Design Delay	\$ 27,249,474
AT011510	Shipp's Corner Interim Pressure Reducing Station	Design	\$ 2,972,422
AT011520	Shipp's Corner Pressure Reducing Station Modifications	Proposed	\$ 1,741,875
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	Proposed	\$ 5,313,344
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	Proposed	\$ 2,496,266
AT013100	South Norfolk Area Gravity Sewer Improvements	Proposed	\$ 6,472,759
AT013200	Dozier's Corner Pump Station and Washington District Pump Station Flooding Mitigation Improvements	Proposed	\$ 305,202
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	Proposed	\$ 4,275,739
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	Design Delay	\$ 2,243,889
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	PER	\$ 11,823,129
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	Proposed	\$ 4,509,141
BH015100	Bloxom's Corner Force Main Replacement	Proposed	\$ 3,393,988
CE011300	Birchwood Trunk 24-Inch 30-Inch Force Main at Independence Boulevard Replacement Phase II	Proposed	\$ 1,686,224
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	Proposed	\$ 2,115,354
CE012000	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements (I-264 VDOT Betterment)	Construction	\$ 121,859
GN010730	Horizontal Valve Replacement Phase III	Proposed	\$ 3,878,866
GN014900	North Shore Gravity Sewer Improvements Phase I	Proposed	\$ 5,475,637
GN015000	South Shore Gravity Sewer Improvements Phase I	Proposed	\$ 886,778
GN015300	Interceptor System Valve Improvements Phase I	Proposed	\$ 3,161,886

Consent Decree/Sewer Rehabilitation Plan – Project Updates

	Project Name	Project Status	Total CIP Cost
Phase 2 continued			
GN015400	South Shore Aerial Crossing Improvements	Proposed	\$ 317,091
JR010600	Lucas Creek Pump Station Upgrade	Design Delay	\$ 6,824,774
NP010620	Suffolk Pump Station Replacement	PER	\$ 12,080,669
NP012400	Western Branch Sewer System Gravity Improvements	Proposed	\$ 3,305,390
NP012500	Shingle Creek and Hickman's Branch Gravity Sewer Improvements	Proposed	\$ 9,070,795
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	Proposed	\$ 1,719,631
VP014020	Sanitary Sewer Project 1950 12 Inch Force Main and 24 and 18 Inch Gravity Replacement	PER	\$ 7,179,000
VP014700	Ingleside Road Pump Station Replacement	Proposed	\$ 3,699,465
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	Bid Delay	\$ 1,109,112
VP015320	Larchmont Area Sanitary Sewer Improvements	Pre Planning	\$ 16,265,000
VP015400	Lafayette Norview-Estabrook Pump Station Replacements	Proposed	\$ 18,495,895
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	Proposed	\$ 2,418,329
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	Proposed	\$ 2,972,071
VP017100	Central Norfolk Area Gravity Sewer Improvements	Proposed	\$ 3,004,023
VP018000	Park Avenue Pump Station Replacement	PER	\$ 5,955,271
YR010300	Foxridge Sanitary Sewer System Sections 1, 4 & 5 Gravity and Woodland Road Fox Hill Road Gravity Sewer Rehabilitation	Proposed	\$ 3,704,967
			\$ 255,368,184

Atlantic Treatment Plant Administrative Building Renovation and Expansion

Project Description:

This project provides for the replacement of the existing administration building at the Atlantic Treatment Plant. The new 8,000 sq. ft. building provides the following features:

- Single location for all plant staff
- ADA compliance
- Improved locker, bathroom and meeting space
- Improved laboratory space
- Improved instrumentation, control and CMMS space
- Ability to re-purpose existing administrative space for electrical equipment and storage

Architect: Guernsey-Tingle

Contractor: Conrad Brothers

Project Budget: \$3.12M

Atlantic Treatment Plant Administrative Building Renovation and Expansion (cont.)

Financial Summary:

Study Costs:	\$	31,181
Design Costs:	\$	231,774
Construction Costs:	\$	2,281,000
Projection Contingency Costs:	\$	81,797
Change Orders:	\$	164,410 (7.2%)
Total:	\$	2,790,162

Schedule Summary:

Planning:	2013
Design:	2014 – 2015
Bid Delay:	2015 – 2016
Construction:	2017 – 2018
Project Complete:	September 2018

Atlantic Treatment Plant Administrative Building Renovation and Expansion (cont.)



Atlantic Treatment Plant Administrative Building Renovation and Expansion (cont.)



Atlantic Treatment Plant Administrative Building Renovation and Expansion (cont.)



HRSD COMMISSION MEETING MINUTES
October 23, 2018

ATTACHMENT #11

AGENDA ITEM 18. – Informational Items

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



October 16, 2018

Re: General Manager's Report

Dear Commissioners:

The threat of Hurricane Florence provided a great opportunity to exercise our hurricane preparedness plan. While we exercise the plan annually, enacting the plan with a large storm actually threatening our region added a completely new dimension. We discovered some elements of our plan that need adjustment, but overall we confirmed that our plan is sound. It remains a challenge to look beyond media hyperbole and remain focused on the best weather information available to make reasonable and safe decisions.

One gap that was highlighted as Hurricane Florence tracked toward the coast is the lack of a regional stormwater model that can demonstrate various scenarios of rainfall and tidal flooding to more accurately forecast where localized flooding may occur. While such a model would be very beneficial to the entire region, it would also assist us in determining which of our specific facilities are at risk, allowing us to adjust our storm preparations accordingly, as well as identify potential longer-term mitigation actions. We have begun conversations with the Hampton Roads Planning District Commission about how we may be able to assist with this effort for the region.

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

- A. **Treatment Compliance and System Operations:** All treatment plants met permit requirements. There were three weather related overflows as a result of an intense localized rain event on North Shore early in the month. Details of these spills and the highlights of the month are included in the attached monthly reports.
- B. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:
 - 1. Two new employee orientation sessions
 - 2. A meeting to discuss the storage tank projects in Virginia Beach

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Commissioners: Frederick N. Elofson, CPA, Chair • Maurice P. Lynch, PhD, Vice-Chair • Vishnu K. Lakdawala, PhD
Michael E. Glenn • Stephen C. Rodriguez • Willie Levenston, Jr. • Ann W. Templeman • Elizabeth A. Taraski, PhD
www.hrsd.com

3. A meeting to discuss implementation and start-up of the Customer Assistance Program
4. A meeting to review issues with the Bower's Hill force main
5. A celebration with the SWIFT core team (staff members across all HRSD workcenters that were instrumental in the development and launch of SWIFT)
6. A meeting to discuss easement and routing options related to the proposed Surry Transmission Force Main
7. Several hurricane preparation meetings
8. A meeting to discuss the Commonwealth's planning for the third Chesapeake Bay Total Maximum Daily Load Watershed Implementation Plan (WIP III)

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

1. The monthly meeting of the HRPDC's Director of Utilities Committee
2. The quarterly board meeting and the member meeting of the Virginia Association of Municipal Wastewater Agencies (VAMWA)
3. A meeting with the Newport News City Manager to discuss the James River Treatment Plant
4. A conference call meeting of the One Water Council of the US Water Alliance
5. Presented SWIFT to the annual environmental conference of the Virginia Manufacturers' Association
6. The partnering session with the SWIFT Program Management Team
7. Participated on a leadership panel for Young Professionals at Water JAM
8. Finalized the Public Official's Forum for WEFTEC
9. Several conference call meetings of the Regionalization Subcommittee of the US EPA Environmental Financial Advisory Board
10. A planning call for participation in the Mid-Atlantic Utility Conference
11. A meeting with Virginia Department of Health regarding SWIFT oversight and monitoring

D. Consent Decree Update: We received a response from EPA regarding our earlier response to their demand for stipulated penalties related to overflows that occurred in 2016 and 2017. EPA agreed to rescind their demand for one overflow but requested more information on others as they did not agree with our position that those were beyond our control. We will provide additional information and continue to object to several of these specific demands as

well as the use of stipulated penalties in general. There has been no communication with EPA on the review status of the integrated wet weather plan submitted over one-year ago.

There will be a closed session scheduled for your review of my performance at the October meeting. I will provide a self-evaluation for your use in this review via separate correspondence.

The leadership and support you provide are the keys to our success as an organization. Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth and the environment. **I look forward to seeing you on Tuesday, October 23, 2018 in Newport News.**

Respectfully submitted,

Ted Henifin

Ted Henifin, P.E.
General Manager

TO: General Manager
FROM: Director of Communications
SUBJECT: Monthly Report for September 2018
DATE: October 12, 2018

A. Publicity and Promotion

1. **80 percent of water samples from the Indian River show signs of dog waste** | September 7, 2018 |The Virginian Pilot
https://pilotonline.com/life/wildlife-nature/coastal-journal/article_a8b87456-b05c-11e8-9e52-d73ed3d74721.html
2. **Groundwater replenished to prevent sea level rise** | September 27, 2018| Water and Wastewater Digest
<https://www.wwdmag.com/channel/casestudies/groundwater-replenished-prevent-sea-level-rise>

B. Social Media and Online Engagement

1. Facebook: 9,914 post impressions
2. Twitter: 9,493 impressions
3. SWIFT website visits: 636
4. LinkedIn Impressions: 0
5. Construction Project Page Hits: 453 total (this number does not include direct visits from home page)
6. Next Door unique impressions: 0

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

1. News Releases/Traffic Advisories/Construction Notices: 0
2. Advertisements: 0
3. Project Notices: 6 (distributed door-to-door)
 - a. Hampton: Sewer Manhole Rehabilitation (1); Manhole Rehabilitation (North Shore-2)
 - b. Newport News: Warwick-Thorncliff to Lucas Creek
 - c. Norfolk – Pump Station Wetwell Rehabilitation

d. Town of West Point in King William – Lee Street

4. Project/Community Meetings: 0

5. New Project Web Pages/Blogs/Videos: 0

D. Special Projects and Highlights

1. Director gave a presentation on SWIFT outreach and community education during this year's WaterJAM Conference.

2. Director provided SWIFT Research Center tours to the following groups:

a. Former Nansemond Ordnance Depot Regional Advisory Board (FNOD RAB) – provided tour with Director of Engineering

b. Regional Stormwater Managers

3. Director coordinated and attended the SWIFT Recognition Celebration, which recognized the many people across HRSD who were instrumental in the development of SWIFT its recognition by receiving the U.S. Water Prize.

4. Staff attended the askHRgreen Water Awareness and Fats, Oils and Grease (FOG) committee and Mini Grant meetings.

5. Director participated in the monthly NACWA Communications and Public Affairs Committee meeting.

6. Director and staff participated in several planning calls/meetings for the Value of Water (VOW) "Imagine a Day without Water" event.

E. Internal Communications

1. Director participated in the following internal meetings:

a. SWIFT Program Management Plan Development meeting

b. PR Strategy workshop for the Orcutt Avenue and Mercury Boulevard Project

c. Planning meetings for the Apprenticeship Graduation Ceremony

d. Web design scoping meeting for phase 2 work

e. Partnering workshop for the Provident Road off-line storage facility

f. Affordability vision and logistics meeting

g. SWIFT QST, QST and DMR meetings

2. Director conducted bi-weekly communications department status meetings, monthly social media content development meetings and project update meetings with staff.

F. Metrics

1. Educational and Outreach Activities: 5
 - a. SWIFT Research Center (SWIFT RC) Tour, FNOD RAB, 9/6
 - b. SWIFT RC Tour, Old Dominion University Environmental Health Science students , 9/19
 - c. SWIFT Tour, Regional Stormwater Managers, 9/19
 - d. SWIFT presentation to Bay Island Civic League, 9/27
 - e. STEAMsational Institute, Portsmouth Public Schools, 9/29
2. Number of Community Partners: 4
 - a. FNOD RAB
 - b. Old Dominion University
 - c. Portsmouth Public Schools
 - d. Regional Stormwater Managers
3. Additional Activities Coordinated by Communications Department: “The Apprentice – Can I Do That?” Girl Scouts event, 9/29
4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	5.66
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	19.5
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Number of Community Partners	Number	4

Respectfully,

Leila Rice, APR
 Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for September 2018

DATE: October 10, 2018

A. General

1. Capital Improvement Program (CIP) spending for the second month of Fiscal Year (FY) 2019 was lower than the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	4.32	8.92
Plan	11.80	21.10

No Water Quality Improvement Fund Grant reimbursements were received in the month of September.

2. HRSD has been a municipal member of the Hampton Roads Utility and Heavy Construction Association (HRUHCA) for many years. This group is made up of contractors, material suppliers and vendors who are involved in utility and roadway work in the region. On September 18, staff made a presentation at the HRUHCA Engineers Night Dinner. The presentation highlighted HRSD's future construction-related work and the drivers behind these initiatives. HRUHCA is a strong local trade group focused on training, professionalism and safety of its members, and HRSD's involvement in this organization helps support the construction contracting community.
3. Hurricane Florence was predicted to possibly hit the Hampton Roads area the weekend of September 15 and 16. We were fortunate that this storm did not hit our region but our staff stood ready to support any measures that might have been needed. We used this event as an opportunity to test the Emergency Damage Assessment Program. Shortly after the storm passed the region, we worked with members of the Customer Care Center Division to test the plan. A number of observations were made as a result of this exercise, resulting in several action items, including:
 - Refining the GIS Collector Application software
 - Providing annual training (particularly without electronic tools)

- Ensuring the damage assessment teams have access to vehicles that are safe for two team members (example: use pool vehicles if laptop stand cannot be removed)
- Creating resources to enhance navigation to the pipeline crossings (example: including Interceptors navigation notes and parking notes for each crossing)
- Ensuring that the teams have the needed supplies prior to deploying

B. Asset Management Division

1. Cathodic protection systems are used as part of the interceptor sewer system to limit corrosion of metallic pipelines. A standard inspection form has been created to document the field condition of the numerous cathodic protection systems found throughout the HRSD service area. The inspection forms have been incorporated into a mobile application using the ArcGIS Collector to streamline and standardize the data collection and analysis process.
2. The Atlantic Treatment Plant asset inventory and condition assessment effort was initiated with a kick-off meeting to discuss methodology and tools to be used. The next few months will focus on gathering all existing data, developing a condition assessment manual for each asset group and refining the field data tool. The field data collection is anticipated to be completed early in 2019. The Atlantic Treatment Plant was chosen as the first facility to be completed since a portion of the data was already collected as part of a pilot effort completed last year.

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

1. The construction efforts continue on the Interceptor Systems Pump Station and SCADA Upgrades and Enhancements project. The system software provider, Emerson, has been working on site in the various server rooms completing software and hardware efforts. Testing of the top end and security software is scheduled to occur in October. After successful completion of this testing, installation of the new pump station panels and cut over to the new system will begin to proceed.
2. The construction efforts continue on the Atlantic Treatment Plant Thermal Hydrolysis Process and FOG Receiving Station project. The work is progressing well with much of the foundation work needed for the new equipment nearing completion. The CAMBI System has been received and is stored at a secure off-site location until the equipment is ready to be installed. The project is scheduled to be completed in fall 2020.

3. A Partnering Workshop was held for the SWIFT Full Scale Implementation Program on September 24. The meeting included representatives from HRSD, AECOM, Hazen & Sawyer and Jacobs. The facilitated workshop introduced team members, discussed qualities of great team members and initiated the development of a charter statement for the project. The final version of the statement has been distributed to the team for review. This workshop will be conducted annually to keep this large team working together effectively, ensuring the long-term goals of the project are being met.

D. Planning & Analysis Division

1. Staff continues their work to coordinate a study to address the sewer collection and treatment options in Middlesex County and the Urbanna Treatment Plant. Due to development and a potential expansion of the Beth-Page Campground, additional conveyance and treatment in this area will be required. Six other smaller areas are also under consideration and an initial study is being performed in the Cook's Corner section of the County. A number of options are under consideration including extension of the sewer system, decentralized treatment and/or expansion of the existing Urbanna Treatment Plant. Discussions continue with County representatives and developers in the area and a Sewer Master Plan for the County is being considered to address long-term needs.
2. Staff has recently completed a study of power loss and historical generator use at the Williamsburg Treatment Plant. Data from the past five years was gathered to share with the consultants considering the need for a new generator to serve the SWIFT Facility at this plant site. A similar study will be prepared at each plant that will include a full-scale SWIFT facility in the future. Staff will begin gathering data for the James River Plant in the near future to help the SWIFT team decide the need for a stand-by generator at this location

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 5
 - a. Staff provided a tour of the SWIFT Research Center to the Former Naval Ordnance Depot (FNOD) Group on September 6.
 - b. Staff presented with the Hampton Roads Planning District Commission at a Regional GIS User Group Meeting on the progress of the Regional Data Collaboration Program on September 7.

- c. Staff made a presentation entitled, “Implementing Managed Aquifer Recharge in Eastern Virginia” at the Water Reuse Committee of Virginia Workshop held as part of the WaterJAM Conference on September 10.
 - d. Staff made a presentation entitled, “Collaborating to Save Ratepayers dollars, No Good Deed Goes Unpunished” at the WaterJAM Conference on September 12.
 - e. Staff made a presentation to the Hampton Roads Utility and Heavy Contractors Association (HRUHCA) Engineer’s Night Event on September 18.
2. Number of Community Partners: 3
- a. FNOD
 - b. Water Reuse Committee of Virginia
 - c. HRUHCA
3. Number of Research Partners: 0
4. Metrics Summary

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Total Training Hours per Full Time Employee (43) - Current Month	Hours / #FTE	3.47
M-1.4b	Total Training Hours per Full Time Employee (43) - Cumulative Fiscal Year-to-Date	Hours / #FTE	7.48
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Number of Community Partners	Number	3
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, P.E.
Bruce W. Husselbee, P.E.

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for September 2018
DATE: October 10, 2018

A. General

1. The Federal Reserve raised interest rates on September 26. The interest rate for the VIP Liquidity Pool increased from 2.19 percent to 2.29 percent, which would increase our interest income by \$100,000 on \$100 million annually. The Fed Chairman stated that “rates are a long way from neutral” which implies there are more rate hikes on the horizon. The median dot plot projections show five more rates increases through 2020. Our \$50 million in variable rate debt remains steady around 1.55 percent and relatively immune to the Fed rate increases.
2. Water consumption for the quarter declined 2.3 percent compared to this time last year and is 1 percent below budget, which may be due to wet weather reducing the lawn watering demand. The South Shore and Small Communities rainfall totals are approximately 15 percent above normal. Revenues remain slightly above target with Interest Income 48 percent above budget as interest rates continue to rise. Personal Services is higher than budget with the three pay periods in August. Operating Expenses are generally lower than budget and lower than the previous year.
3. During September, we did a drill of our Hurricane Response and Recovery Plan after Hurricane Florence passed through. As part of the plan, the Account Investigators are paired with engineers to perform damage assessments. This drill, along with the weather, reduced field activity and affected the number of delinquent activities performed and fees charged. The threat of Hurricane Florence caused many of our localities to close, resulting in delayed meter readings which had a direct effect on number of bills mailed.
4. The Customer Interaction Center services levels improved in September despite continued unanticipated staffing issues. Four temporary personnel have been hired and are expected to begin in late October. Staff continues to monitor workforce management and expects to reach desired targets once new staff is trained.
5. Quarterly investment report for [Retiree Health Plan Trust](#) is attached.

B. Interim Financial Report

1. Operating Budget for the Period Ended September 30, 2018

	Amended Budget	Current YTD	Current YTD as % of Budget (25% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 289,967,000	\$ 75,911,038	26%	27%
Surcharge	1,425,000	400,771	28%	22%
Indirect Discharge	2,750,000	472,243	17%	29%
Fees	2,855,000	672,490	24%	23%
Municipal Assistance	875,000	150,869	17%	29%
Miscellaneous	595,000	84,307	14%	58%
Total Operating Revenue	298,467,000	77,691,718	26%	27%
Non Operating Revenues				
Facility Charge	6,075,000	1,645,880	27%	27%
Interest Income	2,500,000	1,211,934	48%	38%
Build America Bond Subsidy	2,400,000	-	0%	49%
Other	820,000	-	0%	81%
Total Non Operating Revenue	11,795,000	2,857,814	24%	37%
Total Revenues	310,262,000	80,549,532	26%	27%
Transfers from Reserves	8,847,824	2,211,956	25%	25%
Total Revenues and Transfers	\$ 319,109,824	\$ 82,761,488	26%	27%
Operating Expenses				
Personal Services	\$ 55,331,886	\$ 15,083,745	27%	27%
Fringe Benefits	24,321,670	5,984,764	25%	25%
Materials & Supplies	7,686,154	1,700,224	22%	23%
Transportation	1,446,906	284,236	20%	17%
Utilities	12,306,952	2,758,919	22%	22%
Chemical Purchases	10,894,183	2,095,775	19%	18%
Contractual Services	42,104,030	6,614,076	16%	20%
Major Repairs	10,315,534	869,925	8%	12%
Capital Assets	1,232,144	110,923	9%	20%
Miscellaneous Expense	2,945,304	680,266	23%	25%
Total Operating Expenses	168,584,763	36,182,853	21%	23%
Debt Service and Transfers				
Debt Service	62,811,000	21,907,430	35%	30%
Transfer to CIP	87,475,061	21,868,764	25%	25%
Transfer to General Reserve	-	-	0%	8%
Transfer to Risk management	239,000	59,751	25%	25%
Total Debt Service and Transfers	150,525,061	43,835,945	29%	27%
Total Expenses and Transfers	\$ 319,109,824	\$ 80,018,798	25%	25%

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 (CIP).

Transfers represent certain budgetary policy designations as follows:

- a. Transfer to CIP: represents current period’s cash and investments that are designated to partially fund HRSD’s capital improvement program.
- b. Transfers to Reserves: represents the current period’s cash and investments that have been set aside to meet HRSD’s cash and investments policy objectives.

3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended September 30, 2018

	Risk			
	General	Management	Reserve	Capital
Beginning of Period - July 1, 2018	\$ 193,623,393	\$ 3,260,531	\$ 15,266,324	\$ 75,874,029
Add: Current Year Sources of Funds				
Cash Receipts	78,435,172			-
Capital Grants				-
VRA Draws				5,982,715
Bond Proceeds (includes interest)				325,598
Transfers In	-	59,751		21,868,764
Sources of Funds	78,435,172	59,751	-	28,177,077
Total Funds Available	\$ 272,058,565	\$ 3,320,282	\$ 15,266,324	\$ 104,051,106
Deduct: Current Year Uses of Funds				
Cash Disbursements	63,140,704			24,749,351
Transfers Out	21,928,515			-
Uses of Funds	85,069,219	-	-	24,749,351
End of Period - September 30, 2018	\$ 186,989,346	\$ 3,320,282	\$ 15,266,324	\$ 79,301,755

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended September 30, 2018

Classification/ Treatment Service Area	Amended Budget	Expenditures prior to June 30, 2018	Year to Date FY2019 Expenditures	Total Expenditures	Outstanding Encumbrances	Available Balance
Administration	\$ 62,245,711	\$ 40,373,105	\$ 120,825	\$ 40,493,930	\$ 1,189,982	\$ 20,561,799
Army Base	158,584,000	124,056,440	23,634	124,080,074	2,582,887	31,921,039
Atlantic	124,917,320	56,021,559	1,741,848	57,763,407	41,399,928	25,753,985
Boat Harbor	118,380,436	55,186,498	468,258	55,654,756	10,624,536	52,101,144
Ches-Eliz	155,356,457	10,416,092	1,115,639	11,531,731	34,518,035	109,306,691
James River	89,151,802	55,333,203	834,692	56,167,895	2,894,533	30,089,374
Middle Peninsula	49,276,789	7,951,942	359,277	8,311,219	4,500,470	36,465,100
Nansemond	84,434,179	39,238,100	309,724	39,547,824	5,020,846	39,865,509
Surry	3,236,000	101,724	53,603	155,327	336,682	2,743,991
VIP	292,496,378	250,845,561	1,873,845	252,719,406	6,429,131	33,347,841
Williamsburg	17,666,843	10,079,626	-	10,079,626	822,947	6,764,270
York River	45,617,761	40,864,038	329,679	41,193,717	231,125	4,192,919
General	480,703,343	216,595,238	1,692,128	218,287,366	25,776,117	236,639,860
	<u>\$ 1,682,067,019</u>	<u>\$ 907,063,126</u>	<u>\$ 8,923,152</u>	<u>\$ 915,986,278</u>	<u>\$ 136,327,219</u>	<u>\$ 629,753,522</u>

5. Debt Management Overview

	Debt Outstanding (\$000's)				
	Principal Aug 2018	Principal Payments	Principal Draws	Principal Sept 2018	Interest Payments
Fixed Rate					
Senior	\$ 326,499	\$ (2,521)	\$ -	\$ 323,978	\$ (916)
Subordinate	436,311	(1,090)	2,382	437,603	(342)
Variable Rate					
Subordinate	50,000	-	-	50,000	(68)
Line of Credit					
Total	<u>\$ 812,810</u>	<u>\$ (3,611)</u>	<u>\$ 2,382</u>	<u>\$ 811,581</u>	<u>\$ (1,326)</u>

Series 2016 Variable Rate Interest Summary - Variable Rate Debt Benchmark (SIFMA) as of 09/28/18

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	1.81%	1.81%	0.00%
Average	0.38%	0.37%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 09/28/18	1.56%	1.55%	-0.01%

* Since October 20, 2011 HRSD has averaged 37 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended September 30, 2018

	Current YTD	Policy Minimum
Days Cash on Hand (Unrestricted)	435 days	270-365 days
Days Cash on Hand (Excl Reserve \$15m and Risk Mgmt \$3)	394 days	270-365 days
Risk Management Reserve as % of Projected Claims Costs	25%	25%

Primary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value Sept 30, 2018	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	10,669,597	187,396,076	186,429,513	13,550	11,649,710	12.0%	N/A	0.50%
VIP Stable NAV Liquidity Pool	-	101,000,000	16,000,000	294,204	85,294,204	88.0%	AAAm	2.18%
Va Local Government Investment Pool	68,984,048	5,000,000	74,115,221	131,173	-	0.0%	AAAm	
Total Primary Source	\$ 79,653,645	\$ 293,396,076	\$ 276,544,734	\$ 438,927	\$ 96,943,914	100.0%		

Secondary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value Sept 30, 2018	Ending Cost	YTD Mkt Adj	Credit Quality
VIP 1-3 Year High Quality Bond Fund	-	124,728,039	1,003,411	546,421	124,107,797	124,271,049	(163,252)	AA+f/\$1
Total Secondary Source	\$ -	\$ 124,728,039	\$ 1,003,411	\$ 546,421	\$ 124,107,797	\$ 124,271,049	\$ (163,252)	

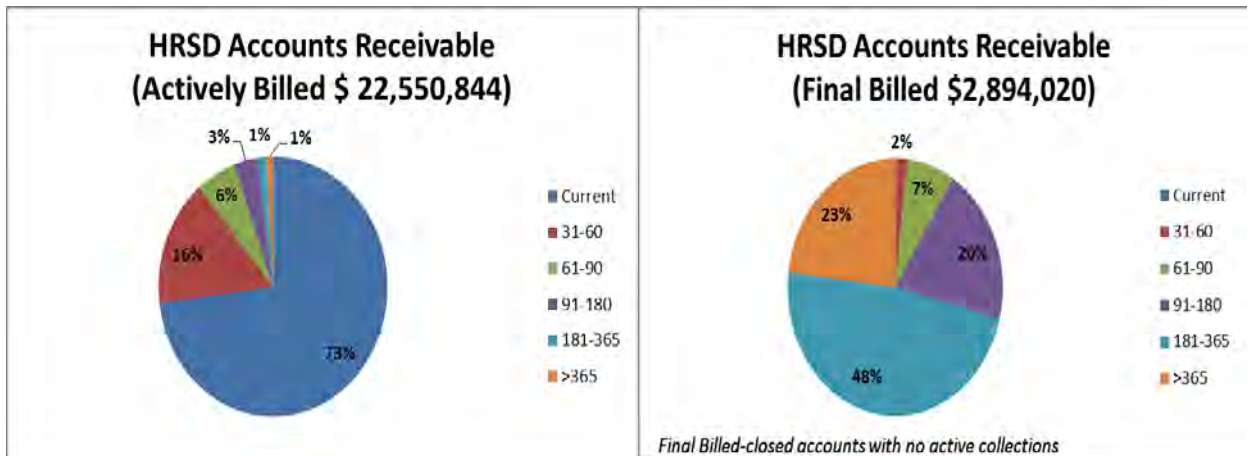
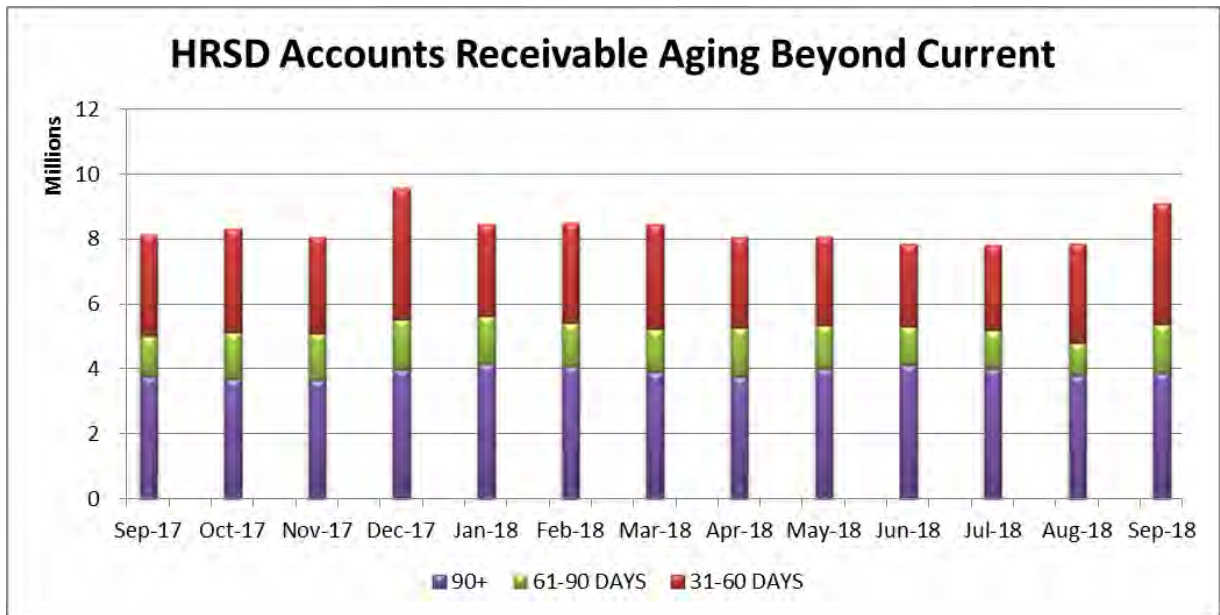
Total Primary Source	\$ 96,943,914	43.9%
Total Secondary Source	\$ 124,107,797	56.1%
TOTAL SOURCES	\$ 221,051,712	100.0%

7. Summary of Billed Consumption

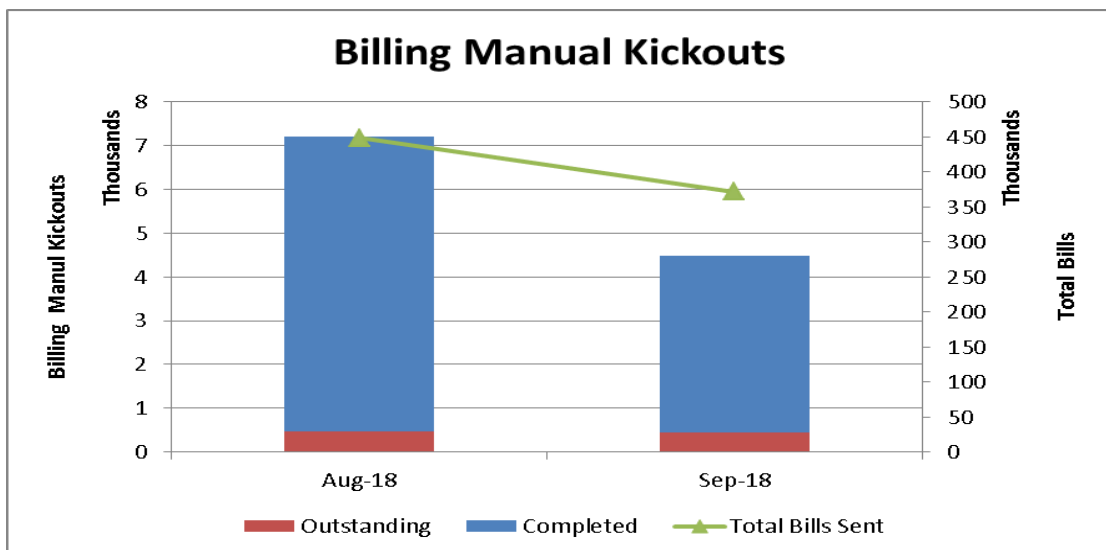
Summary of Billed Consumption (,000s ccf)							
Month	FY2019 Cumulative Budget Estimate	FY2019 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2018 Actual	From FY2018	Cumulative 3 Year Average	From 3 Year Average
July	4,737	5,175	9.3%	4,869	6.3%	4,821	7.3%
Aug	9,595	10,233	6.6%	9,939	3.0%	9,666	5.9%
Sept	14,442	14,294	-1.0%	14,632	-2.3%	14,383	-0.6%
Oct	18,768	-	N/A	19,006	N/A	18,999	N/A
Nov	22,834	-	N/A	23,305	N/A	23,358	N/A
Dec	27,166	-	N/A	27,462	N/A	27,616	N/A
Jan	31,486	-	N/A	31,965	N/A	31,948	N/A
Feb	36,154	-	N/A	36,519	N/A	36,247	N/A
March	40,096	-	N/A	40,741	N/A	40,654	N/A
Apr	43,612	-	N/A	44,732	N/A	44,649	N/A
May	47,887	-	N/A	49,018	N/A	48,864	N/A
June	52,927	-	N/A	53,298	N/A	53,391	N/A

C. Customer Care Center

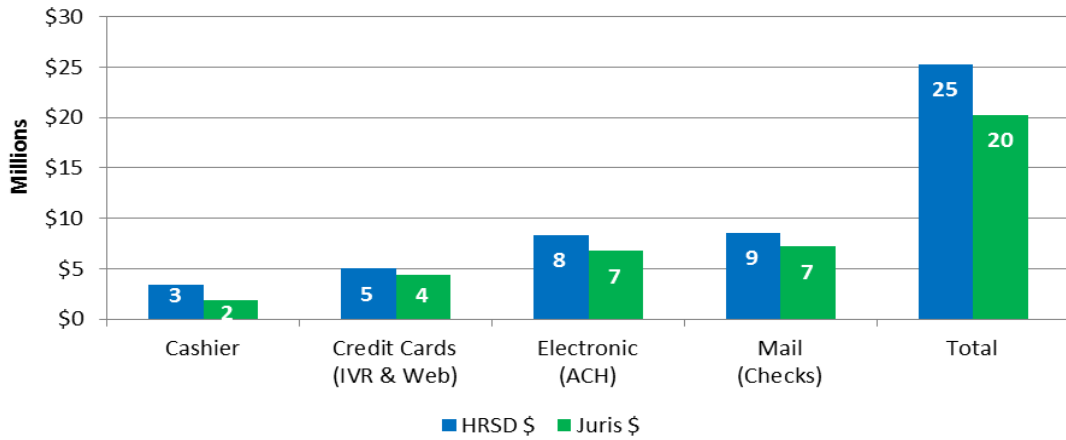
1. Accounts Receivable Overview



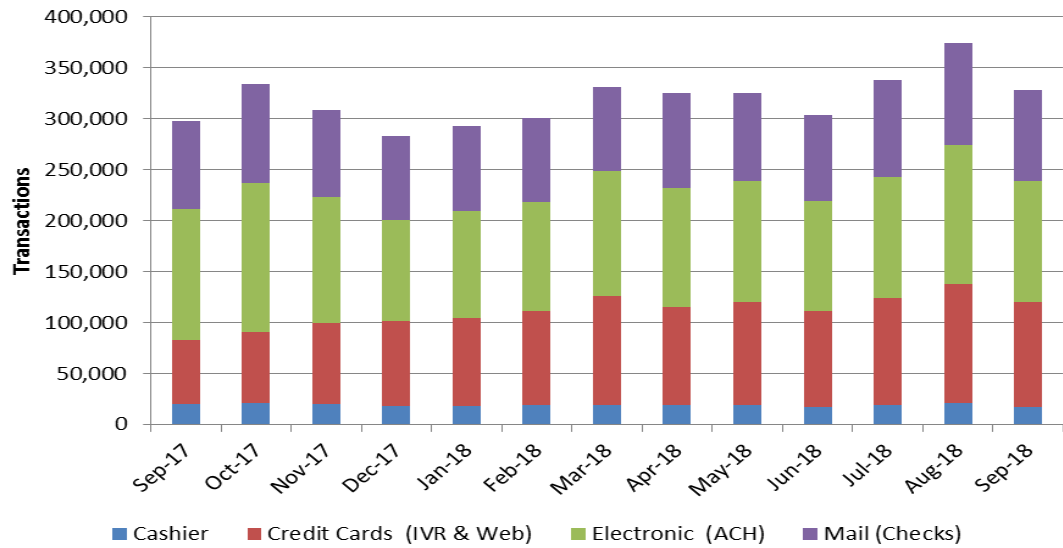
2. Customer Care Center Statistics



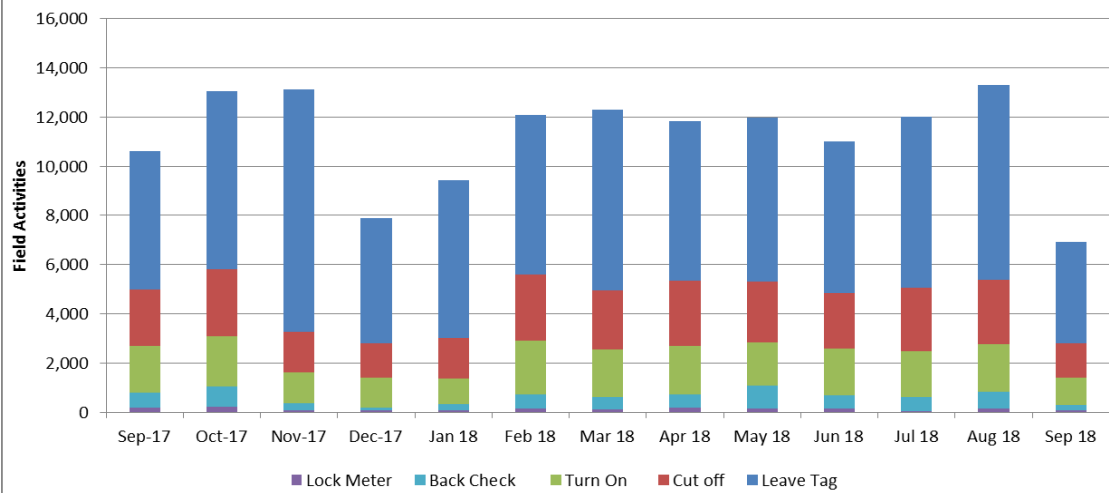
Payments Processed September 2018

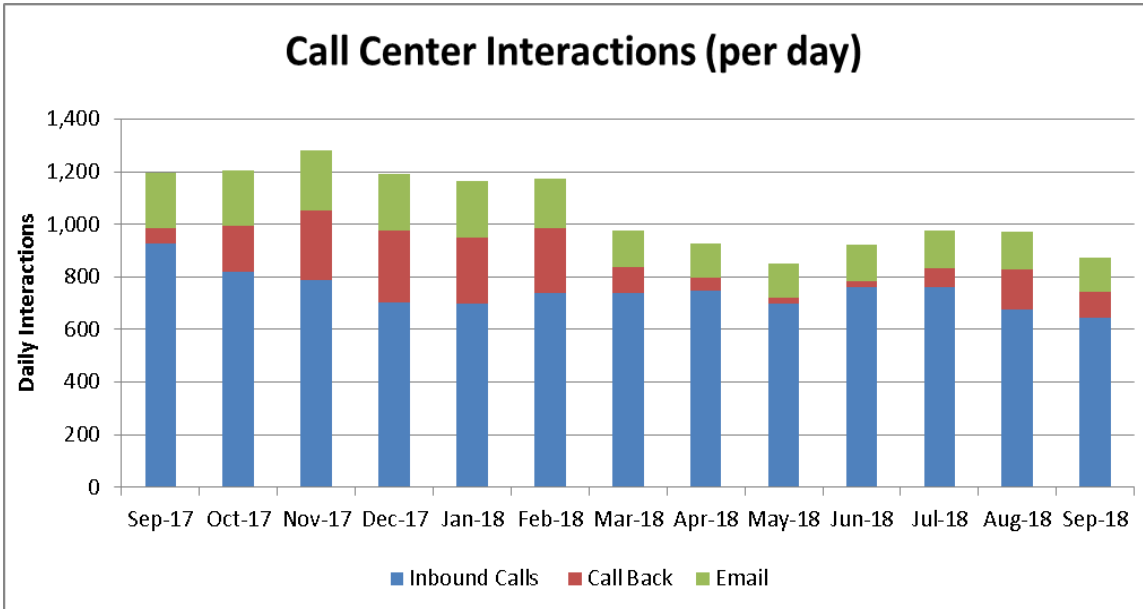
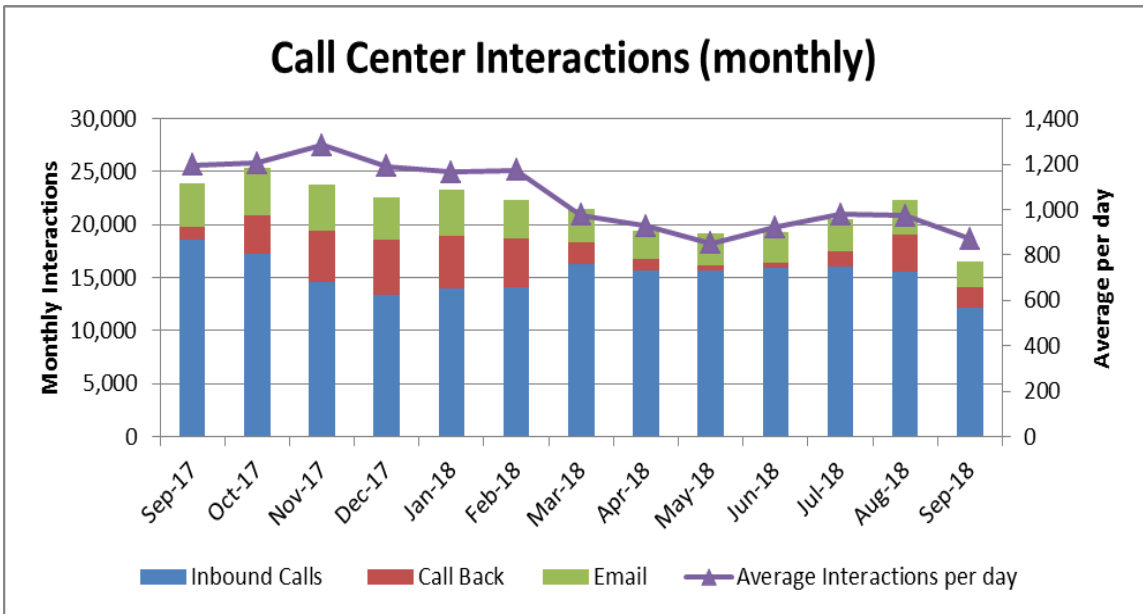
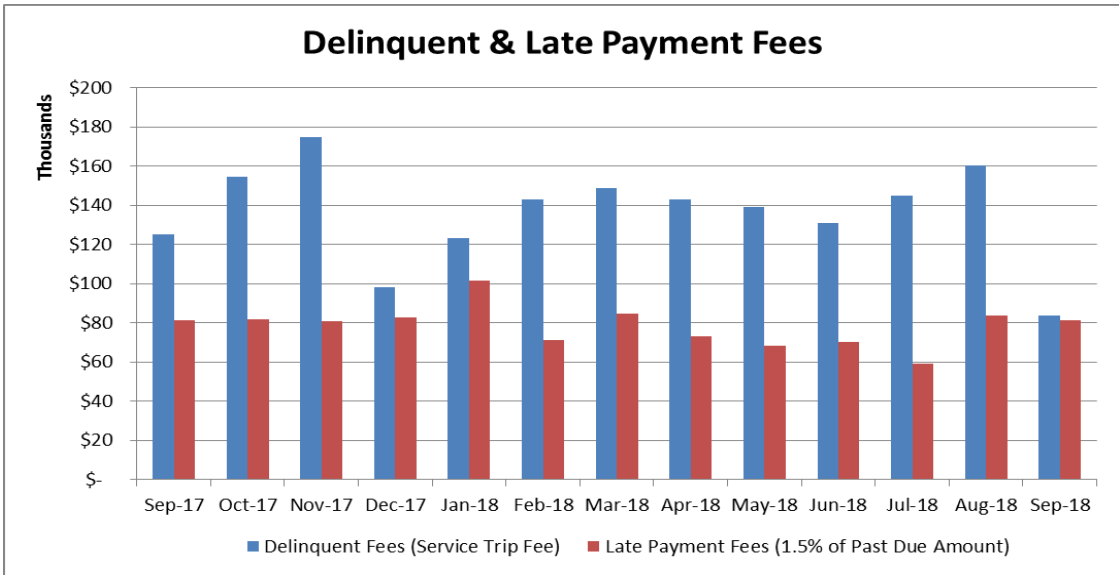


Payment Transactions



Field Activity

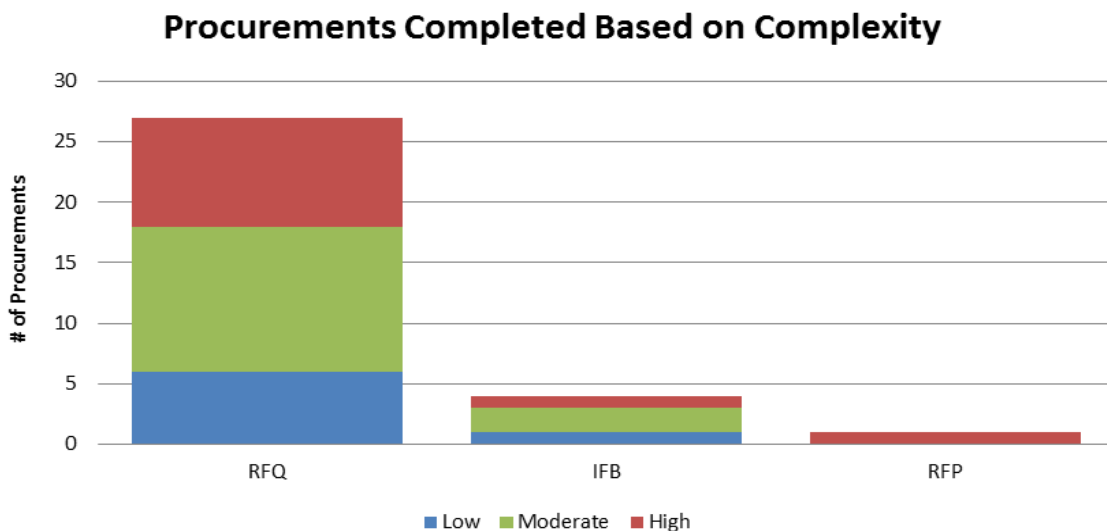
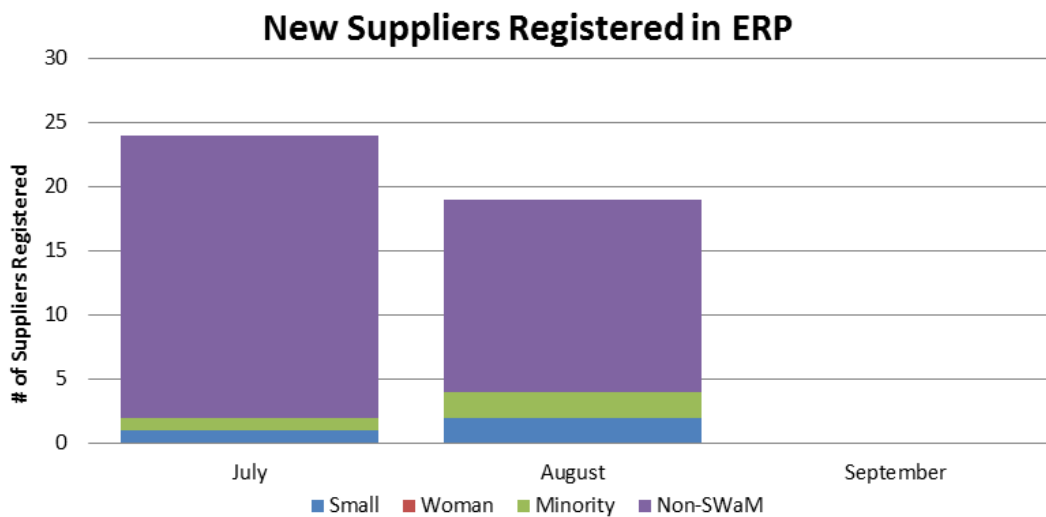




Customer Interaction Statistics	Apr	May	Jun	Jul	Aug	Sep
Calls Answered within 3 minutes	78%	88%	87%	76%	56%	68%
Average Wait Time (minutes)	1:53	1:06	1:09	2:17	4:22	3:02
Calls Abandoned	8%	5%	6%	9%	14%	11%

D. Procurement Statistics

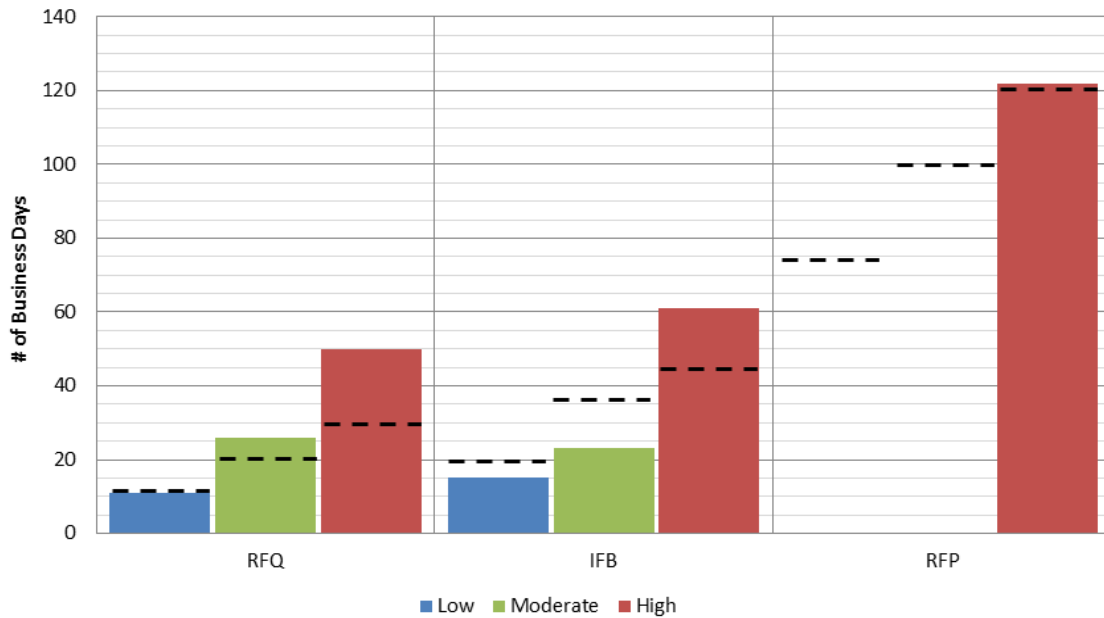
Savings	Current Period	FYTD
Competitive Savings ¹	\$121,204	\$503,722
Negotiated Savings ²	\$11,072	\$48,243
Salvage Revenues	\$26,491	\$28,490
Corporate VISA Card - Estimated Rebate	\$16,676	\$57,742



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

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

Cycle Time per Method of Procurement and Complexity

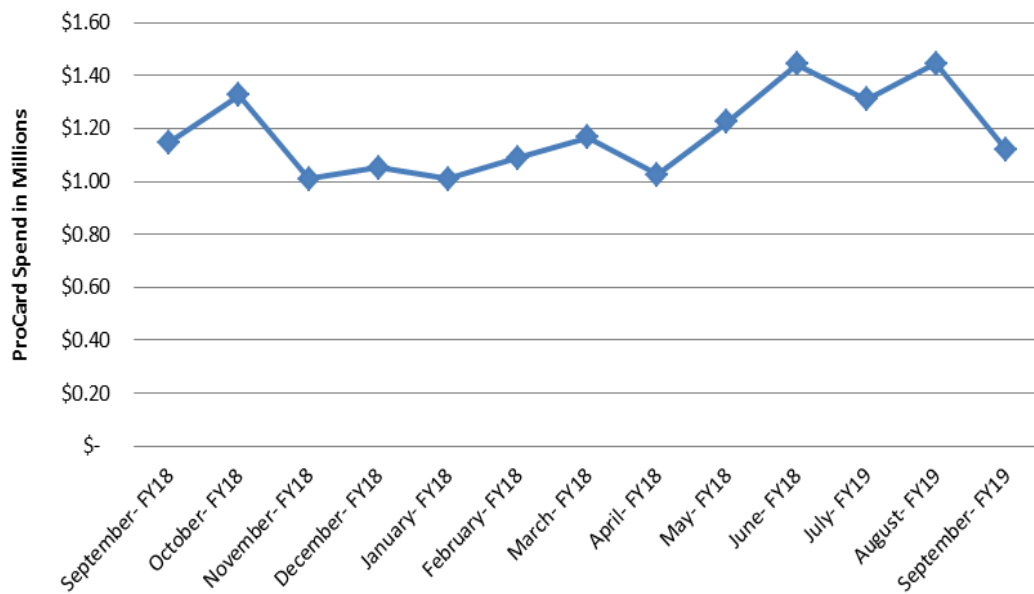


Dashed Line: Target Service Level Cycle Time

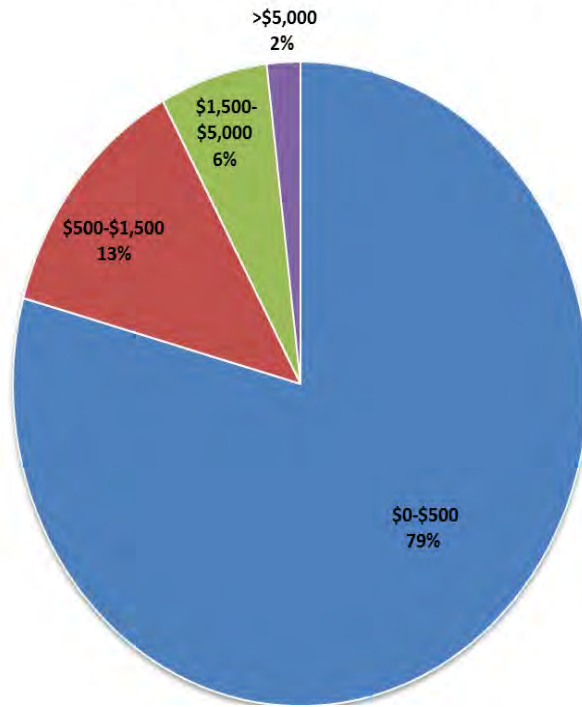
	Low	Moderate	High
RFQ	12	20	30
IFB	20	35	45
RFP	75	100	120

Low: Low technical, quick turnaround, **Moderate:** Technical, routine, **High:** Highly technical, time intensive,

ProCard Spend



ProCard Transaction Dollar Amounts



ProCard Fraud	External Fraud Transactions *	Comments
July	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
August	0	n/a
September	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
Total	6	

***External Fraud:** Fraud from outside HRSD (i.e.: a lost or stolen card, phishing, or identity theft)

Accidental Use, which is anything that is not purchased for use and ownership by HRSD, was at 2 transactions (0.09%) out of the 2,226 September ProCard transactions, with a combined total of \$77.52.

Procurement Client Training		
	Current Period	YTD
ProCard Policy and Process	1	11
Procurement Cycle	3	10
Total	4	21

E. Business Intelligence – Enterprise Resource Planning (ERP)

- ERP Helpdesk currently has 256 open work orders in the following statuses:

Escalated	2
In progress	48
On Hold	22
Open	181
Waiting on User	3

2. ERP Helpdesk received 264 work orders in September. In September, 355 work orders were closed and 92 were closed within one hour.
3. ERP staff continues to work with consultants on functionality and improvements to the system.

F. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
 - a. 2018 VA AWWA/WWEA WaterJAM Vendor Expo on September 10
2. Community Partners: 2
 - a. Virginia American Water Works Association
 - b. Virginia Water Environment Association
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Training During Work Hours Per Full Time Employee (101) – Current Month	Hours / #FTE	2.25
M-1.4b	Total Training During Work Hours Per Full Time Employee (101) – Cumulative Fiscal Year-to-Date	Hours / #FTE	7.07
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	2
	Wastewater Revenue	Percentage of budgeted	104%
	General Reserves	Percentage of Operating Budget less Depreciation	111%
	Liquidity	Days Cash on Hand	435 Days
	Accounts Receivable (HRSD)	Dollars	\$25,444,864
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	15%

4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2018
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	*
M-4.3	Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow	*
M-4.4	Affordability	6.5 CCF Monthly Charge/Median Household Income ³	*
M-4.5	Operating Cost/MGD	Total Operating Expense /365/5-Year Average Daily Flow	*
	Billed Flow	Percentage of Total Treated	*
	Senior Debt Coverage	Cash Reserves/Senior Annual Debt Service	*
	Total Debt Coverage		*

* These metrics will be reported upon completion of the annual financial statements.

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

Attachment:

[Retiree Health Plan Trust Quarterly Investment Report](#)

³ Median Household Income is based on the American Community Survey (US Census) for Hampton Roads

Portfolio Summary

Total Portfolio Value

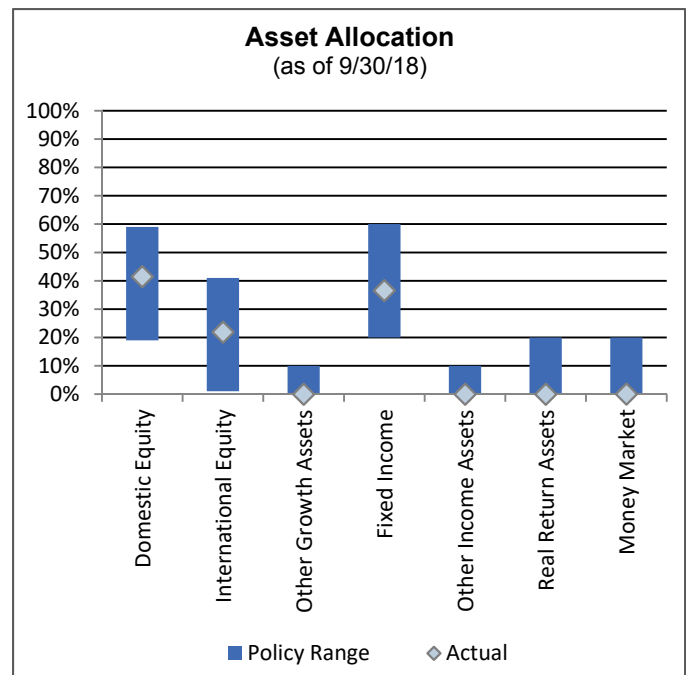
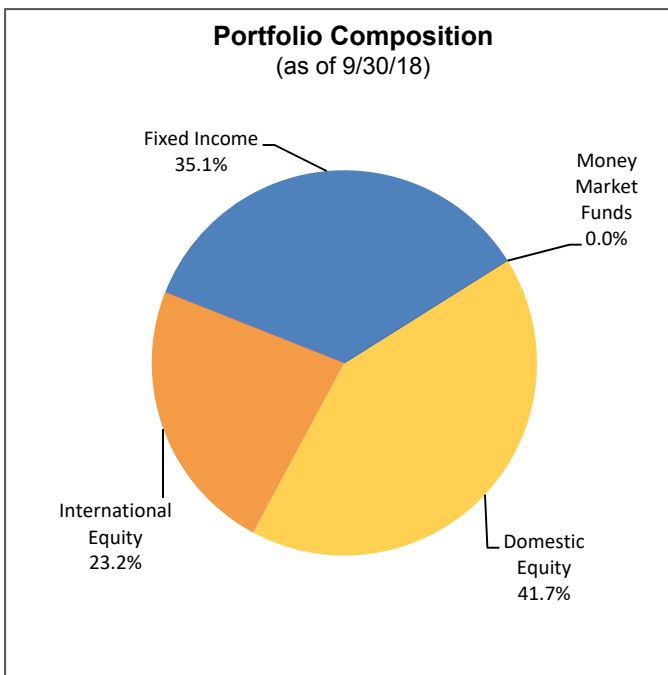
	<u>September 30, 2018</u>	<u>June 30, 2018</u>
Investment Assets	<u>\$ 49,091,465</u>	<u>\$ 47,081,121</u>
Combined Assets	<u>\$ 49,096,730</u>	<u>\$ 47,103,248</u>

Portfolio Recap & Strategy

- The Retiree Health Plan Trust portfolio returned 3.30% (combined assets) for the quarter ended September 30, 2018, above the 2.91% return of the Blended Benchmark.* The one-year trailing return for the Retiree Health Plan Trust portfolio was 7.79% compared to the Blended Benchmark return of 6.55%. The weighted average credit quality of fixed income holdings for the Retiree Health Plan Trust portfolio is A.
- The U.S. economy remained strong over the third quarter and the labor market remained tight. The unemployment rate decreased in September to 3.7%, the lowest rate since 1969. At the Federal Open Market Committee’s (“FOMC’s”) September meeting, Federal Reserve Chair Jerome Powell stated that “fiscal policy is boosting the economy, ongoing job gains are raising income and confidence, and overall financial conditions remain accommodative”. The FOMC increased the target range for the federal funds rate by 0.25% to 2.00% to 2.25% in September. With conditions that are consistent with the FOMC’s economic projections, market participants suggested a 77% likelihood of one more rate hike this calendar year at the FOMC’s December meeting.
- Domestic Equity markets showed resilience over the third quarter despite headwinds of trade uncertainty and a rising interest rate environment. The S&P 500 generated a stellar positive return of 7.71%, leading the S&P to return 10.56% year-to-date. Large-caps (Russell 1000 Index) were the best performers over the quarter, returning 7.42%. Mid-cap stocks (Russell Mid Cap Index) and small-cap stocks (Russell 2000 Index) had more modest positive returns of 5.00% and 3.57% throughout the quarter, respectively.
- Developed markets outside of North America, as measured by the MSCI EAFE Index, rose 1.35% during the third quarter. Uncertainty surrounding tariffs and trade tension caused volatility in the beginning of the third quarter but waned as trade talk mellowed towards the closing of the quarter. Investors continued to monitor political and economic tensions over the quarter as financial stability for the Eurozone remains fragile.
- Emerging markets, as measured by the MSCI Emerging Markets Index, experienced volatility during the third quarter as global trade uncertainty and U.S. Dollar appreciation continued. This quarter’s negative returns of -1.10% are quite mild compared to a harsh second quarter return of -7.96%. During calendar year 2018, ambiguity surrounding economic and political tension has contributed to emerging markets underperforming at -7.68% year-to-date.
- The U.S. bond market, represented by the Bloomberg Barclays US Aggregate Index, returned -0.02% in the third quarter. The U.S. Treasury yield curve flattened further over the quarter as the Federal Reserve remained committed to their plan of tightening monetary policy. Short-term interest rates experienced large increases over the quarter, while longer-term interest rates experienced slightly more modest increases. The 2-year Treasury note rose 0.29% to 2.82% over the quarter while the 10-year Treasury note rose 0.20% to 3.06%. As of September 30, 2018, the spread between the 2-year and 10-year U.S. Treasury yields tightened to 0.24%, compared to a spread of 0.33% in the previous quarter. Global bonds, as measured by the Bloomberg Barclays Global Aggregate Index, struggled this quarter compared to the U.S. bond market, returning -0.92%.

Portfolio Composition

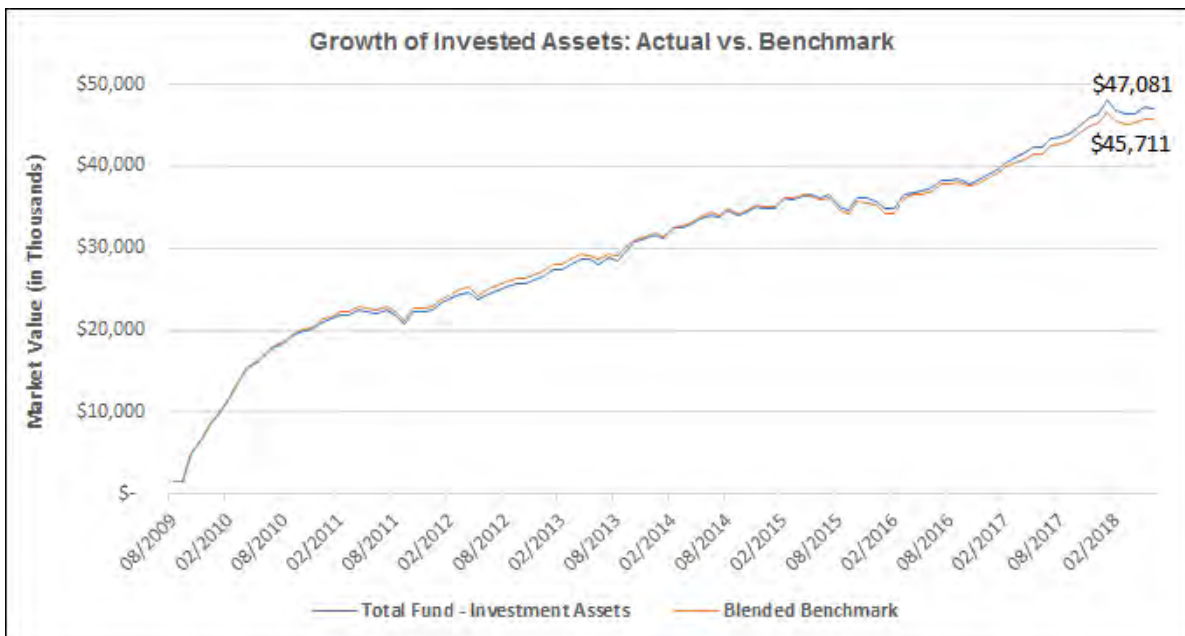
Security Type	September 30, 2018	% of Portfolio	June 30, 2018	% of Portfolio	Permitted by Policy
Domestic Equity	\$ 20,918,222	42.6%	\$ 19,546,325	41.5%	19% - 59%
International Equity	\$ 10,590,737	21.6%	\$ 10,300,796	21.9%	1% - 41%
Other Growth Assets	\$ -	0.0%	\$ -	0.0%	0% - 10%
Fixed Income	\$ 17,574,923	35.8%	\$ 17,226,621	36.6%	20% - 60%
Other Income Assets	\$ -	0.0%	\$ -	0.0%	0% - 10%
Real Return Assets	\$ -	0.0%	\$ -	0.0%	0% - 20%
Money Market Funds	\$ 12,847	0.0%	\$ 29,506	0.1%	0% - 20%
Totals	\$ 49,096,730	100.0%	\$ 47,103,248	100.0%	



Portfolio Performance – Investment Assets

Quarter Ended June 30, 2018

Index	Market Values	%	1 Quarter	Year to Date	Trailing 1 Year	Trailing 3 Years	Trailing 5 Years	Apr 2013 to Jun 2018*	Since Inception	Inception Date
Domestic Equity										
Vanguard Total Stock Market Index	\$ 17,607,077	37.40%	3.91%	3.28%	14.82%	11.58%	13.26%	13.19%	14.23%	9/1/2009
Russell 3000 Index			3.89%	3.22%	14.78%	11.58%	13.29%	13.19%	14.20%	9/1/2009
iShares Edge MSCI USA Quality Factor S&P 500	\$ 934,056	1.98%	1.31%	1.59%	14.16%	11.84%	N/A	N/A	N/A	7/1/2018
iShares Core S&P Small-Cap ETF S&P SmallCap 600	\$ 1,005,192	2.14%	3.43%	2.65%	14.37%	11.93%	13.42%	13.36%	N/A	7/1/2018
			8.70%	9.40%	20.48%	13.81%	14.55%	14.66%	7.62%	5/1/2018
			8.77%	9.39%	20.50%	13.84%	14.60%	14.69%	7.66%	5/1/2018
International Equity										
Vanguard Total International Stock Index Fund	\$ 3,250,790	6.90%	-3.17%	-3.62%	7.10%	5.33%	6.42%	5.45%	11.27%	10/1/2016
MSCI AC World ex USA (Net)			-2.61%	-3.77%	7.28%	5.07%	5.99%	5.07%	11.44%	10/1/2016
Vanguard International Value	\$ 2,126,730	4.52%	-3.20%	-3.81%	7.69%	4.49%	6.07%	5.77%	11.28%	5/1/2016
MSCI AC World ex USA (Net)			-2.61%	-3.77%	7.28%	5.07%	5.99%	5.07%	10.89%	5/1/2016
J. O. Hambro International Select	\$ 2,661,883	5.65%	1.24%	4.75%	15.24%	6.24%	10.66%	10.43%	12.89%	1/1/2016
MSCI AC World ex USA (Net)			-2.61%	-3.77%	7.28%	5.07%	5.99%	5.07%	10.35%	1/1/2016
Oppenheimer International Small Company	\$ 1,303,245	2.77%	3.61%	6.25%	20.15%	14.58%	16.67%	16.69%	15.22%	4/1/2015
MSCI AC World ex USA Small Cap (Net)			-2.18%	-2.90%	9.69%	7.27%	8.15%	7.06%	7.52%	4/1/2015
Hartford Schroders Emerging Markets Equity	\$ 958,148	2.04%	-8.45%	-6.19%	9.68%	7.36%	5.83%	3.87%	-8.93%	3/1/2018
MSCI EM (net)			-7.96%	-6.66%	8.20%	5.60%	5.01%	3.10%	-9.67%	3/1/2018
Fixed Income										
Baird Core Plus	\$ 5,687,726	12.08%	-0.35%	-1.74%	-0.16%	2.47%	3.09%	2.37%	2.61%	5/1/2014
Bloomberg Barclays U.S. Aggregate			-0.16%	-1.62%	-0.40%	1.72%	2.27%	1.71%	1.97%	5/1/2014
DoubleLine Core Fixed Income	\$ 2,577,162	5.47%	-0.19%	-0.92%	0.64%	2.42%	3.18%	2.56%	0.03%	8/1/2017
PGIM Total Return Bond Fund	\$ 1,720,227	3.65%	-0.53%	-1.89%	0.59%	3.15%	3.75%	2.90%	-0.06%	8/1/2017
Bloomberg Barclays U.S. Aggregate			-0.16%	-1.62%	-0.40%	1.72%	2.27%	1.71%	-0.82%	8/1/2017
Vanguard Intermediate-Term Investment Grade	\$ 5,685,553	12.08%	-0.36%	-2.17%	-0.90%	2.28%	3.02%	2.22%	2.22%	4/1/2013
Bloomberg Barclays Capital U.S. Credit: 5 - 10 Yr			-0.59%	-2.87%	-1.07%	2.62%	3.48%	2.50%	2.50%	4/1/2013
Vanguard High Yield Corporate	\$ 1,555,954	3.30%	0.36%	-1.09%	1.04%	4.54%	5.07%	4.38%	6.52%	4/1/2016
Bloomberg Barclays US Corp: High Yield			1.03%	0.16%	2.62%	5.53%	5.51%	4.95%	9.25%	4/1/2016
Aggregate										
Retiree Health Plan Trust	\$ 47,081,121		1.07%	0.49%	8.10%	6.89%	7.86%	7.30%	8.29%	9/1/2009
Blended Benchmark*			0.90%	-0.13%	7.06%	5.98%	6.81%	6.26%	7.94%	9/1/2009



TO: General Manager

FROM: Director of Information Technology (IT)

SUBJECT: Information Technology Department Report for September 2018

DATE: October 10, 2018

A. General

1. Additional storage capacity was added to the main storage array within the data center.
2. Staff has concluded follow-up inspection of the Supervisory Control and Data Acquisition (SCADA) hardware within the data centers at Small Communities, North Shore Operations and Air Rail Avenue. Items previously identified as requiring remediation have been corrected. System security software and hardware are ready for testing.
3. The IAPs (Industrial Automation Programmers) developed a process and an associated test procedure to replace the source of the existing SCADA points that are currently being stored in the SCADA Enterprise Data Server (EDS) with the points that will be coming from the new Interceptor Distributed Control System (DCS). As each new Interceptor site is brought online, this process will need to be performed to ensure that data continuity is maintained.
4. Staff is developing a formal Cybersecurity Awareness training module which will become part of the organizational development and training program. The training will be mandatory for all HRSD employees and will be updated regularly to ensure its content remains relevant.

B. Strategic Planning Metrics Summary

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

C. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Training During Work Hours Per Full Time Employee (51) – Current Month	Total Training Hours / # FTE	1.25
M-1.4b	Total Training During Work Hours Per Full Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	5.05
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,
Don Corrado

TO: General Manager
FROM: Director of Operations
SUBJECT: Operations Report for September 2018
DATE: October 4, 2018

A. Hurricane Florence

Although the region was spared from the effects of Hurricane Florence, staff spent a significant amount of time (over 3,000 hours) in storm preparation. It was a good opportunity to test our hurricane preparation procedures.

B. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. Three Sanitary Sewer Overflows (SSOs) occurred on September 8 and 9 as a result of a significant wet weather event. These spills occurred in the collection system at 25th Street in Newport News, at Bayshore Pump Station (PS) in Hampton, and at the intersection of Hope and Chamberlin in Hampton. A total of 390 gallons was lost at the Hope and Chamberlin spill. We could not estimate the quantity spilled for the other SSOs since they were submerged.
- b. There were three interceptor complaints and 28 system alarms during the month. The high volume of system alarms was the result of the wet weather event on September 8 and 9. Other system alarms were due to various pumps, communications, and valve actuator fails. All alarms and complaints were fully resolved.
- c. Staff spent time working with a consultant on a pilot program that will assess the viability of deploying an integrated collection system control scheme to optimize the collection system conveyance for wet weather capacity and to stabilize daily dry weather treatment influent flows. The hope is that this research effort will ultimately result in significant operational efficiencies and capital cost savings.
- d. The Lee Hall Pressure Reducing Station (PRS) was demolished during the month after it was disconnected from the force main.

- e. Staff performed one caustic injection in the Gloucester system, two pump and haul operations of the Town of Surry Treatment Plant, and two pump and haul operations of the Lawnes Point Treatment Plant.

2. South Shore (SS) Interceptor Systems

- a. Staff continues to successfully use the expandable plug system to repair faulty assets. Staff replaced damaged valves and risers at three air vents. We are using these in lieu of a line stop or mainline valves because they are far less expensive and impactful on system operations.
- b. Staff supported the Atlantic Treatment Plant (ATP) by removing approximately sixteen yards of material from the digester.
- c. Staff assisted the Chesapeake-Elizabeth Treatment Plant (CETP) by removing approximately eight yards of grease from the septic well.
- d. On September 14, the Peoples Baptist Church in Chesapeake called about a failure on their private pump station. Staff assisted the church by closing the HRSD valve to isolate their line until the church could complete the repairs.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. The nitrogen removal system continues to perform exceptionally well with final effluent total nitrogen average for September of 3.21 mg/L.
- b. Staff installed electric actuators on the influent valves of Primary Clarifier #1.
- c. A contractor replaced a water pump on the #1 generator after discovering an oil leak.
- d. Staff reinstalled the mixer blades and hubs for the mixers on aeration tank #6. After taking tank #6 out of service, staff discovered that one mixer hub with mixing blades attached fell off the shaft. Staff reinstalled the blades and hub.
- e. Repairs to incinerator #2 were completed.
- f. Staff repaired a misalignment of the flights on the #4 primary clarifier.

2. ATP

- a. Construction of the Thermal Hydrolysis Process (THP) project continues. Contractors worked to finish up yard piping and began to pour the foundation for the new pre-dewatering building. Gas piping modifications continue in the digester building and modification of the hot water system continues. In addition, electrical work continues in the dewatering building.
- b. The new administration building is nearing completion. Staff and the contractor are working on tying in the fire alarm communication system into the phone lines as required by a new code. This needs to be completed before a certificate of occupancy can be issued. We hope to move into the new building in October.

3. Boat Harbor Treatment Plant (BHTP)

- a. One odor exception occurred when the odor control system chemical feed pumps failed and would not run in automatic mode. Staff corrected the issue.
- b. Staff completed major repairs of primary clarifier #6 including replacement of the flight chain, attachment links, 12 flights, all bottom wear strips and several idler sprockets.
- c. Nitrification efforts for the James River bubble permit are going well this calendar year. As a result staff will be able to complete much-needed maintenance and inspections on the aeration tanks that are required for the nitrification process. The biological phosphorus removal processes at the plant continue to perform well.
- d. On September 1st after a significant rain event, staff recorded three consecutive chlorine residuals below the permit limit. In an effort to reestablish nitrification, staff increased the aeration effluent ammonia levels in the chlorine contact tank and collected hourly total residual chlorine samples for the next six hours to verify the problem was resolved.
- e. On September 9th a wet weather event resulted in a significant increase in plant flow. The increased flow reduced the detention time in the plant and pushed solids through before they had time to settle. The solids flowed into the contact tank, causing the residual to drop. Staff acted quickly to increase the chlorine residual and resolve the problem within 1.5 hours.

4. Chesapeake Elizabeth Treatment Plant (CETP)

- a. Staff repaired the barscreen compactor system and the chiller pump at the pilot study.
- b. Staff also converted a non-potable water (NPW) pump from horizontal to vertical style to increase the output pressure so that one pump can effectively provide the cooling water necessary for the emergency generator to run.

5. James River Treatment Plant (JRTP)

- a. Staff continued maintenance and repair efforts on the return activated solids (RAS) system and extended their efforts to the waste activated solids (WAS) system. On the RAS system, deteriorating pipe on the suction leg of RAS pump #2 was replaced and coating of the 24-inch RAS pipeline completed. The #3 WAS pump was rebuilt, coated and reinstalled.
- b. Staff replaced a doctor blade on the gravity belt thickening (GBT) systems #1 GBT and the tension roller and belt on the #2 GBT.
- c. Struvite buildup in pumps delivering centrifuge centrate to the centrate equalization tanks is still an issue. Staff cleared the pumps of the accumulated struvite.
- d. Staff installed a static mixer upstream of the blending tank on the magnesium hydroxide feed system. Improved mixing may negate the need for additional detention time to form struvite in the centrifuge feed solids.
- e. A contractor continued repairs on the fiberglass odor duct servicing the headworks and primary treatment section of the plant. A change order was issue to repair three additional areas where fiberglass duct was deteriorated.
- f. A contractor began drilling the Sustainable Water Initiative for Tomorrow (SWIFT) test well.

6. Nansemond Treatment Plant (NTP)

- a. Staff continues to re-pipe the sodium bisulfite storage tank lines and critical valves as a preventive maintenance project.

- b. Staff continues to work on the odor control scrubber hydrogen sulfide (H₂S) monitoring upgrades. This project will both stabilize odor scrubber operations and optimize the chemical usage for the system.
- c. Staff assisted in reassembling the SWIFT pilot, and also assisted in the installation of the new soil aquifer treatment piping.
- d. Staff began installing new safety handrails around each hatch on primary clarifiers 1 & 2.

7. Virginia Initiative Plant (VIP)

- a. Staff removed one dewatering centrifuge lower casing assembly and shipped it out for repairs. Staff rebuilt and reinstalled a caustic metering pump, a caustic mix pump and solids receiving screw conveyor components. Staff cleaned, inspected and repaired one primary clarifier and the Nitrification Enhancement Facility aeration tank and clarifier.
- b. Staff assisted contractors with the installation of a new process air compressor. Contractors cleaned ash from furnace #2 to prepare it for repairs and zero-hearth modifications.
- c. The nutrient reduction capital project is approaching completion. Startup of the Preliminary Treatment Facility is scheduled for October. Contractors completed installation of two more anaerobic recycle (ARCY) pumps.
- d. Staff continues to work with the Water Quality Department to determine the industrial source that is periodically causing process upsets.

8. Williamsburg Treatment Plant (WBTP)

- a. On September 15, winds from Hurricane Florence caused a tree to fall on the power line supplying power to the plant. The emergency generator malfunctioned due to a low oil pressure switch fault. The plant was without power for about four hours. Staff utilized a portable generator to chlorinate and dechlorinate flow. Effluent quality was maintained throughout the event. Approximately 945,000 gallons of treated effluent was discharged through the short outfall. Odor scrubbers were off line during this time due to the power loss resulting in a reportable odor event.

- b. Staff completed repairs and coating work on the #2 primary clarifier effluent pipe and launders.

9. York River Treatment Plant (YRTP)

- a. The contractor replacing the digester cover completed coating the new steel cover. Work began inside the digester to coat piping and pipe supports.
- b. Staff completed modifications designed to improve nutrient removal to aeration tanks #3 and #4. Modifications included installing two baffle walls in each tank, constructing and placing several bubble generators and running air piping to each bubble generator.

10. Incinerator Operations Event Summary - Minor incinerator operations are summarized below:

Condition	Cause	ABTP	BHTP	CETP	VIP	WBTP
Use of emergency bypass stack	Power anomaly/loss	3	4	1	3	1
Total Hydrocarbon Emission Failure	Equipment malfunction					3

WBTP had one reportable use of the emergency bypass stack when the power failed on September 15. The event was report to the Virginia Department of Environmental Quality (DEQ).

C. Small Communities (SC)

1. Middle Peninsula

a. SC Treatment:

(1) Urbanna Treatment Plant (UBTP)

A contractor completed the installation of the new elevated walk-ways. DEQ performed a plant-wide inspection this month as part of the five year permit cycle.

(2) West Point Treatment Plant (WPTP)

DEQ performed a plant-wide inspection this month as part of the five year permit cycle.

(3) King William Treatment Plant (KWTP)

The granular activated carbon (GAC) media for zinc removal was changed out for both vessels this month. The magnesium hydroxide trials seem to have improved the life of the GAC, as the change out was extended from the typical two-month cycle to slightly more than four months. A “clean-in-place” was also performed on the membranes in Train 1 this month; this was the first clean-in-place procedure performed since the activation of Train #1 in late July. It went very well with no requirements for pump and haul operations.

Work continues on sizing and selecting a new generator for the plant. With the addition of the second treatment train, a new generator is necessary to support the entire plant and all processes during utility power failures.

(4) Mount Olive Treatment Plant (MOTP)

Staff continues to pump and haul all of the wastewater from the two Mount Olive areas. Work began on moving the storage tank from the Central Middlesex Treatment Plant to the MOTP. The tank will provide additional needed storage capacity at MOTP.

b. SC Collections:

(1) West Point System

A contractor completed the repair work on Lee Street gravity project.

(2) King William System

Rehabilitation of the plant’s influent pump station was completed to include replacement of pumps and all internal piping. This project was designed and constructed in-house by staff.

(3) Mathews System

All of the new valve pits have been installed; this completes phase VI of this Capital Improvement Project (CIP).

2. Small Communities – Surry Systems

The Sussex Service Authority (SSA) continued contract operations of both the Town of Surry TP and the Surry County TP.

3. Small Communities - Lawnes Point

Staff continues to treat and discharge the pond water after a brief shutdown for Hurricane Florence. To date, 2.67 million gallons have been treated and discharged. Pump and haul operations continue on the raw influent.

D. Support Systems - Automotive

1. The turbocharger on ATP #2 combined heat and power (CHP) generator was installed on September 7. The unit was tested and returned to service.
2. Staff continues to install Fleetistics vehicle information devices on district fleet vehicles. 210 units have been installed to date.
3. Staff performed load bank tests at Kingsmill, Laskin Road, North Avenue, North Shore Road, and Woodland Road pump stations, and at the NS and SS Main Operations Complexes. All generators operated as designed and were returned to service.

E. Condition Assessment

1. Staff inspected 1,528 LF of gravity main through the use of Closed-Circuit Television (CCTV).
2. Staff completed asset inspection assessments for VIP.
3. A warranty inspection was completed on ATP's #1 secondary clarifier and no deficiencies were found.
4. Staff met with a contractor at ABTP to patch and repair deteriorating roofing and holes on the Intermediate Pump Station (IPS) Motor Control Center (MCC) roof. Also, at ABTP, replacement of combi-flex on secondary clarifiers #1-4 was completed. Annual warranty inspections were also performed on the new aeration tanks #5 and 6. Repairs to the top coating are required.
5. Rehabilitation began on BHTP secondary clarifiers #1, 2, 3, and 6.

6. Rehabilitation of secondary clarifier #5 at NTP is 25 percent complete. Also at NTP, approximately 70 linear feet of combi-flex was replaced on a damaged control joint that allowed water into a building.

F. Facilities Maintenance

1. Staff is evaluating a beautification project at the ATP that may address the possible site, noise, and odor reduction from the treatment plant to its neighbors.
2. Installation and start-up of a 3-ton mini-split air conditioning unit in room #132, at the Central Environmental Laboratory, are complete. The unit was installed as a cooling requirement for the additional lab equipment that is already installed in the room.
3. Staff continues working with a contractor at CETP staff to replace two compressors on the chiller in the administration building.
4. Staff finished rehabilitating a storage area at YRTP; furnished the YRTP administration area with a shelving cabinet for safety equipment; continued work on the remodel of West Point office areas, and began construction of a printer workstation for the administration office at NTP. Staff also constructed shelves for the Human Resources' file room, created a workstation in the SWIFT Research Center, and built consoles in box trucks for Pretreatment and Pollution Prevention (P3).
5. Staff rebuilt the #2 pump at Woodland Pump Station; installed a mechanical seal on a pump for JRTP; milled and tapped out flanges and fabricated a new sampler for the SWIFT Research Center; installed a new counter unit and hydraulic valve key for SS Interceptors; fabricated shafts for VIP; fabricated packing glands for NS Interceptors, and cut down mixer frames for the CE Pilot.

G. Electrical and Energy Management (EEM)

1. A contractor completed an energy optimization audit at ABTP on September 19 and 20. Several energy conservation measures (ECMs) were identified and recommended for implementation. These recommendations are under evaluation.
2. Staff installed two power quality meters in the incinerator building at VIP in a continued effort to identify, diagnose and mitigate power anomalies in the treatment plant, specifically, in the incinerators.

3. Staff continues a research project to design and construct a programmable logic control (PLC)-based analyzer that can be modified to measure a variety of chemicals at very low concentrations. Initial PLC communication challenges were solved and ladder logic program development continues.
4. Staff installed and tested four influent gate valve actuators and controls and also built points, graphics and valve statuses on the distributed control system (DCS) at ABTP. Staff also installed a main breaker and variable frequency drive (VFD) for an aeration blower.
5. Staff continues to support the major upgrade at VIP. Equipment startup was performed on the odor control systems and scrubbers as well as testing of the DCS automatic restart of equipment after a power failure. Flow through the Preliminary Treatment Facility (PTF) was tested this month using non-potable water (NPW). Flow will be tested next month with wastewater.
6. Staff worked with several contractors to set up bypass Supervisory Control and Data Acquisition (SCADA) alarms at Newtown Road Pump Station (PS), Rodman Avenue PS and Willoughby PS.
7. Staff continues to support the Switchgear Replacement CIP at BHTP and WBTP.
8. Staff continues to modify the SWIFT pilot plant control schemes, now relocated to the SWIFT Research Center at NTP.
9. Electrical service was removed from the old Bridge Street Pump Station (PS). The PS will be demolished in the near future.
10. Staff took over electrical preventive maintenance (PM) activities for all active (access to live 240 volts) cathodic protection rectifier sites. The PMs will be coordinated with Interceptor staff.

H. Water Technology and Research

In previous months, staff explained the benefit of process modeling and several ongoing projects related to calibrating process models to plant data in order to prepare for treatment plant upgrade evaluations. The design and operation of ozone systems requires careful consideration in light of the often conflicting needs to achieve virus inactivation, organics oxidation, and bromate control. There is a need for a sophisticated ozone process model that is accessible to HRSD staff and our contractors. This model will eventually be used both for design and operations optimization as well as for guiding continued bench and

pilot-scale research work on this topic. We have embarked on an initiative to build an ozone model in the SUMO (Dynamita) platform, which is now our preferred simulation package because it allows the development and modification of new and complex models in an open source format. Although models like this have been developed for purely research purposes in mathematical simulation packages (e.g. MATLAB), this is new ground in terms of building an engineering-focused model, and nothing like this currently exists for commercial purchase.

This model will consider ozone and hydroxyl radical kinetics and reactions with organic matter, oxidation of select emerging contaminants, bromide/bromate reactions, and chlorine and chloramine reactions. For this project, we have teamed with Dynamita and AM-TEAM, which is a small Belgian spinoff company from the Ghent University that has expertise in ozone process modeling. At this stage, a basic model has been developed to include ozone and hydroxyl radical kinetics and roughly calibrated to HRSD bench-scale data. Additional model state variables and reactions will be added at the same time that experimental work is being planned to further calibrate and refine the model structure.

J. Strategic Measurement Data

1. Education and Outreach Events 14

- a. Several employees attended, participated, and volunteered at the WEF WaterJam event in Virginia Beach September 10–12.
- b. Staff provided a pump demonstration at the Virginia Department of Labor and Industry (DOLI) – Girl Scouts of the Colonial Coast outreach event on September 29.
- c. Tour of SWIFT, FNOD RAB on September 6.
- d. Tour of SWIFT Regional Storm water Managers on September 19.
- e. Briefing on HRSD research program for LIFT Workshop, WaterJAM – Klaus and Wilson
- f. Podium presentation on CE BNR pilot work, WaterJAM – Klaus
- g. Podium presentation on SWIFT bromate control work, WaterJAM – Pearce and Buehlmann
- h. Podium presentation at WEFTEC data analytics workshop – Gagnon
- i. Podium presentation at WEFTEC on struvite control – Bott
- j. Podium presentation at WEFTEC on SWIFT – Bott
- k. Podium presentation at WEFTEC on aerobic granular sludge using cyclones – Bott
- l. The NS Material & Operations Coordinator (MOC) facilitated United Way campaign presentations at EEM's Annual Planning Day on September 24, James River Treatment Plant (JRTP) on September 7, NS Operations on September 19, NTP on September 27 and Small Communities Division (SCD) on September 18
- m. NS MOC consulted with Associated General Contractor (AGC) regarding the HRSD CARES Home Renovation Project on September 20.
- n. Chesapeake Bay Foundation – oyster cage maintenance at BHTP for oyster gardening program

2. Community Partners: 5

- a. United Way
- b. Associated General Contractor (AGC)
- c. Chesapeake Bay Foundation
- d. VIMS
- e. ODU

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (510) – Current Month	Hours / FTE	3.19
M-1.4b	Total Training During Work Hours per FTE (510) – Cumulative Year-to-Date	Hours / FTE	8.89
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	25,694
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	58%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	18%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	24%
M- 4.1a	Energy Use: Treatment *reported for July 2018	kWh/MG	2,072
M-4.1b	Energy Use: Pump Stations *reported for July 2018	kWh/MG	1878
M-4.1c	Energy Use: Office Building *reported for July 2018	kWh/MG	109
M-5.2	Educational and Outreach Events	Number	14
M-5.3	Number of Community Partners	Number	5

Respectfully submitted,

Steve de Mik
Director of Operations

TO: General Manager
FROM: Director of Talent Management
SUBJECT: Monthly Report for September 2018
DATE: October 10, 2018

A. Human Resources (HR)

1. Recruitment - Summary

New Recruitment Campaigns	8
Job Offers Accepted – Internal Selections	10
Job Offers Accepted – External Selections	9
Internal Applications	39
External Applications	170
Average Days to Fill Position	116

2. Enterprise Resource Planning (ERP)

a. HRSD worked with the Managed Services consultant on:

- (1) Benefit program setup
- (2) Benefit interface updates
- (3) Appraisal reminder notifications

b. Staff worked with Information Technology on new benefit interfaces.

3. Benefits and Compensation

a. Staff worked with the benefit consultant on:

- (1) 2019 Retiree Medicare Supplemental Plan renewal and rate reduction
- (2) Employee benefits survey
- (3) Implementation of Advanced Medical second opinion services

b. Staff continued work with the consultant on the custom and market-based compensation study.

4. Wellness

a. Participation Activities

Year Six Participation Activities	Unit	September 2018	Year to Date (March 2018–February 2019)
Biometric Screenings	Number	5	13
Preventive Health Exams	Number	4	27
Preventive Health Assessments	Number	22	184
Coaching Calls	Number	0	0
On-Line Health Improvement Programs	Number	56	261
Web-MD Online Health Tracking	Number	67	821
Challenges Completed	Number	0	0
Fit-Bit Promotion	Number	3	63

- b. Optima Employee Assistance Program staff and Wellness Specialist conducted *Resiliency* training sessions at the Air Rail complex. Over 100 employees participated in the classes.
- c. Fall Outdoor Bootcamp classes began on a weekly basis at the Air Rail complex.
- d. The Wellness Specialist worked on the Fall Newsletter.
- d. Final preparations were made for Flu and Tetanus clinics to be conducted at all work centers in October. January/February biometric screenings were scheduled.
- d. The Wellness Committee continued work on the following:
 - (1) Developing a list of healthy dining options near workcenters
 - (2) A November Wellness Challenge

5. Workers Compensation

Two new cases were opened with seven cases remaining active.

6. Employee Relations

Staff continued partnering with work center supervisors and employees to support employee relations and address HR issues:

- a. Participated on interview panels for South Shore Interceptors
- b. Attended a Treatment Supervisors meeting to clarify HR documentation requirements and ERP appraisal processes
- c. Conducted HR and ERP training for several new supervisors
- d. Clarified stand-by pay policies

7. General

- a. HR and Accounting staff continued to meet to streamline and improve HR and payroll processes.
- b. Re-organization of the HR file room and storage areas continued.
- c. Staff participated in the following HRSD activities:
 - (1) Talent Management's Planning Day
 - (2) Facilitated several Work Center Planning Day meetings
 - (3) SharePoint Governance Team
 - (4) Hurricane Florence Emergency Operation Center
- d. Staff participated in the following training:
 - (1) Marsh McLennan Agency's *Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security Webinar*
 - (2) Operation's *Workforce of the Future* Breakfast and Learn

B. Organization Development and Training (OD&T)

1. Training

- a. Worked with HR and General Management staff to develop an HRSD Ethics Policy training based on internal audit recommendations. A draft presentation, training documentation and disclosure forms are being developed.
- b. Work Center Planning Day meetings 2020 continued. Quality Facilitators will conduct a minimum of three meetings each with the goal of completing all meetings by the end of October.

- d. Staff continued to update and categorize training program procedures.
- e. Reorganization and clean-up of the Meekins building storage and training records continued.

2. Apprenticeship Program

- a. A Math Standardization Workshop was held to discuss curriculum revisions and implementation of a standardized math course based on Apprenticeship Committee recommendations.
- b. Staff worked with the General Management staff on coordination of the 2018 Apprenticeship Graduation Ceremony to be held at the Hampton Roads Convention Center.
- c. Staff continued to enter historical training and apprenticeship program information into ERP and scan historical records.
- d. The Training Superintendent evaluated the Condition Assessment Technician Trade curriculum and On the Job Training books.
- e. An Apprentice Supervisor training session was held to assist work centers with guiding new apprentices and program administrative tasks.

3. General

- a. Work continued with consultants to develop a second pre-learning workshop in preparation for Operations' *Workforce of the Future Workshop* in November.
- b. Staff worked with Procurement on a ProCard recertification e-learning project.
- c. Staff participated in the following training:
 - (1) 2018 International Public Management Association's (IPMA) International Training Conference and Exposition
 - (2) Operation's *Workforce of the Future* Breakfast and Learn
 - (3) Mentor Coach's *Executive Coaching*

C. Safety

1. Mishaps and Work Related Injuries

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

	<u>2017</u>	<u>2018</u>
Mishaps	42	34
Lost Time Mishaps	10	6
<i>Numbers subject to change pending HR review of each case.</i>		

b. MOM Program Year Performance Measure Work Related Injuries

September 2018 Injuries For Operations	September 2018 Injuries for Other HRSD Departments	Total Lost Time Injuries Since July 2018	Total HRSD Injuries Since July 2018
2	0	2	12

c. Follow-up investigations were performed on two reported work-related injuries and two auto accidents.

2. HRSD Safety Training

Strategic Planning Measure	Unit	September 2018
Total Safety Training Hours per Full Time Employee (836) All HRSD – August 2018	472.73Hours / 836 FTE	0.57
Total Safety Training Hours Per Full Time Employee (836) – Cumulative July 2018	915.48 Hours / 836 FTE	1.09

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

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

- b. Daily hot work permits for a Bridge Street Pump Station contractor and several hot work permits for a Shippo Corner Pump Station contractor
- c. Aerial Lift Safety Training for Chesapeake Elizabeth and James River Treatment Plant (TP) employees
- d. A Vehicle Backing Safety Training class for South Shore Interceptor employees
- e. Safe work practice training on spotting and reporting ordnances for South Shore Interceptor employees
- f. Chemical Hygiene Plan training for new Water Quality and Water Research and Technology employees
- g. Material Safety Data Sheet and updated Hazard Communication Plan training at the following work centers:
 - (1) Army Base TP
 - (2) Central Environmental Lab (CEL)
 - (3) Chesapeake-Elizabeth TP
 - (4) Facilities Maintenance, Condition Assessment and South Shore Automotive, Carpentry and Machine Shops
 - (5) James River TP
 - (6) Nansemond TP
 - (7) North Shore Automotive Shop
 - (8) York River TP

4. Safety Inspections, Testing and Monitoring

- a. Weekly on-site inspections of the following construction sites:
 - (1) Army Base TP
 - (2) Atlantic TP
 - (3) Bridge Street Pump Station
 - (4) Newtown Road Pump Station
 - (5) North Shore Road Pump Station
 - (6) Rodman Pump Station
 - (7) Virginia Initiative Plant (VIP)
 - (8) Willoughby Avenue Pump Station
 - (9) York River TP

- b. Quarterly safety inspections of the following work centers:
 - (1) Atlantic TP
 - (2) Chesapeake Elizabeth TP
 - (3) James River TP
 - (4) Lawnes Point TP
 - (5) Small Communities TPs, Pump Stations and Operations Center
 - (6) South Shore Automotive, Carpentry, Electrical and Machine Shops
 - (7) South Shore Interceptors

- c. Monitoring and testing for the following:
 - (1) Monthly velocity tests on CEL, Technical Services and SWIFT Research Center (SWIFT RC) lab hoods
 - (2) Quarterly radiation screening of incinerator ash samples for Army Base, Boat Harbor, VIP and Williamsburg TPs

- d. Safety walk-throughs and evaluations:
 - (1) Evaluated on-going construction sites to ensure loose items were secured for Hurricane Florence emergency preparations
 - (2) Escorted City of Virginia Beach Fire Marshall on a walk-through of the Air Rail Avenue complex

5. Safety Programs

- a. Nansemond TP and SWIFT RC Emergency Response Procedures were updated.
- b. Staff completed online MSDS data entry for James River TP.
- c. Staff continued to review employee audiometric testing results and finalize data entry.
- d. A meeting was held with the Director of Water Technology to discuss safety needs and issues related to SWIFT.
- e. Prescription Safety Glasses program implementation continued. Order forms were distributed to interested employees.

- f. The following was performed for the Confined Space Entry Program:
 - (1) Calibrated confined space meters
 - (2) Updated confined space permits for Army Base TP
 - (3) Reviewed and completed confined space permits for North and South Shore Interceptors
- g. Staff met with SWIFT RC supervisors to update the Chemical Hygiene Plan.
- h. The Safety Manager met with Water Quality safety representatives to discuss safety labeling requirements.

6. General

- a. Industrial Hygienist completed and distributed the Fall *Safe Times* newsletter.
- b. Staff updated *Vehicle Backing* safety training.
- c. Safety Manager met with HRSD's Workers Compensation Carrier's Risk Control consultant and coordinated a tour of the SWIFT RC.
- d. Staff continued scanning historical records and identifying salvage items.
- e. Industrial Hygienist completed requirements for the American Society of Safety Professionals Risk Assessment Certification.
- f. Staff attended the following training:
 - (1) Applied Lab's Annual Asbestos Inspector refresher training
- g. Staff participated in the following HRSD activities
 - (1) Talent Management's Annual Planning Day
 - (2) Hurricane Florence Preparations and Emergency Operations Center meetings

D. Monthly Strategic Planning Metrics Summary

- 1. Education and Outreach Events: (10)

- a. Water Environment Federation Utility Management Workforce Sustainability Subcommittee conference call on September 5
 - b. Former Nansemond Ordinance Depot (FNOD) meeting at SWIFT RC on September 6
 - c. Presented *Building Bench Strength- Cultivating a Learning Culture* at American Water Works Association/Virginia Water Environment Association's Water Jam on September 10
 - d. City of Suffolk Public School's Career and Technical Education Center Advisory Board meeting on September 11
 - e. Hosted a Virginia Department of Environmental Quality Wastewater Licensure Review Workshop September 25 – 29
 - f. Hampton Roads Public Works Academy student interviews at New Horizons Regional Education Center on September 25
 - g. City of Suffolk Local Emergency Planning Commission meeting on September 26
 - h. Christopher Newport University's Fall Career Fair on September 27
 - i. Hampton University's Fall Career Fair on September 27
 - j. Partnered with the Department of Labor and Industry on an apprenticeship outreach initiative for the Girl Scouts of Coastal Colonial Coast on September 29
2. Community Partners: (9)
- a. Former Nansemond Ordinance Depot
 - b. City of Suffolk Public Schools Career and Technical Education Center
 - c. Virginia Department of Environmental Quality
 - d. Hampton Roads Public Works Academy
 - e. City of Suffolk Local Emergency Planning Commission
 - f. Christopher Newport University

- g. Hampton University
- h. Virginia Department of Labor and Industry
- i. Girl Scouts of Coastal Colonial Coast

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	2018
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.00
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0.00
M-1.4a	Total Training Hours Per Full Time Employee (17) – Current Month	Total Training Hours/ FTE	2.65
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	12.71
M-5.2	Educational and Outreach Events	Number	10
M-5.3	Community Partners	Number	9

Respectfully submitted,
Paula A. Hogg
 Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for September 2018
DATE: October 11, 2018

A. General

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

Divers Processing Company – Portsmouth

A Notice of Violation was issued to Divers Processing Company in Portsmouth in June 2018. The violations included Improper Analytical Techniques (IST) for EPA Method 1664A (oil and grease) and repeated occurrences of Improper Analytical Techniques for EPA Method 624 (organic compounds). A Request for Reconsideration was received and a hearing was held on September 4, 2018. The General Manager subsequently concurred with the Hearing Officer's recommendation that the 1.0 point associated with the March 2018 Acrolein CCV IST violation be removed due to HRSD's extended response time in addressing a previous similar violation, preventing Divers Processing Company from taking corrective actions. Additionally, the General Manager chose not to assess a point for the March 2018 Methyl Ethyl Ketone and Chloromethane (organic compounds) IST violation. This resulted in no civil penalties being assessed for the violations, and the previous penalty demand was rescinded.

2. The Director participated in a Contaminants of Emerging Concern (CEC) Workshop held by the Water Research Foundation (WRF) in Denver, Colorado. CECs include chemicals and substances like pharmaceuticals, personal care products, microplastics, nanomaterials and disinfection by-products. WRF formed a CEC Issue Area Team (IAT) approximately 10 years ago to evaluate the various states of science associated with this topic, develop requests for proposals (RFP) to spur research, and guide research by interacting with each project research team. The workshop was designed to bring experts in this field together with the IAT to determine what questions have been answered and where research needs are the greatest. The workshop participants prioritized next steps for research; this list of projects will now be considered by the IAT for RFP

potential. Select projects will then be brought to the WRF Research Advisory Council for their input regarding importance to WRF subscribers and prioritization for funding.

B. Quality Improvement and Strategic Activities

1. The Sustainability Advocacy Group (SAG) reported the following activities for the month of September.
 - a. Official name change to Sustainable Environment Advocacy group (SEA)
 - b. Adopted the mission: To educate HRSD employees and the communities we serve on implementing sustainable environmental practices to produce measurable improvements.
 - c. Submitted SEA-related activities for the River Star Biz Sustained Distinguished Performance application.
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

1. HRSD provided sampling and analytical services to Westmoreland County to assist in identifying and correcting ongoing treatment issues at their Coles Point STP and to the City of Virginia Beach to support their water quality monitoring program for Lake Trashmore.
2. The [Municipal Assistance Billed Reimbursements](#) per service collected between July 1 and September 30, 2018 are attached.
3. The [Municipal Assistance Invoice Summary](#) for the third quarter of the 2018 calendar year is attached.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Community Partners: 9
 - a. City of Newport News
 - b. City of Norfolk
 - c. City of Suffolk
 - d. Elizabeth River Project
 - e. Hampton Roads Planning District Commission
 - f. United Way

- g. Virginia Department of Environmental Quality
- h. Virginia Department of Health Division of Shellfish Sanitation
- i. Virginia Department of Health Office of Epidemiology

3. Capacity Related Overflows: 3

- a. On September 8-9 a storm event generating heavy rainfall occurred, causing increased system flows and Sanitary Sewer Overflows (SSOs). The following releases were reported:
 - 1. Manhole on Harbor Road: unknown quantity
 - 2. Manhole on Hope Street: 390 gallons
 - 3. Manhole at the Bayshore PS: unknown quantity

4. Industrial Waste Related System Issues: 2

- a. On September 5, James City Service Authority (JCSA) staff discovered diesel fuel in one of their pump stations and notified P3. By the time P3 staff arrived, JCSA had cleaned both the pump station and the line. JCSA was provided additional P3 call lists and asked to notify P3 more promptly in the future. There was no evidence of HRSD's system being impacted.
- b. On September 18, the City of Hampton staff discovered diesel fuel in their Power Plant pump station. P3 staff and the Hampton Fire Department were notified. A definitive source could not be located, but a manhole was identified as a potential source of discharge activity. The City hired a fuel recovery company to clean the City pump station and to skim HRSD's Freeman Pump Station. There was no further indication that HRSD's system was impacted.

5. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4a	Training During Work Hours Per Full Time Employee (109) (Current Month)	Total Hours / # FTE	3.38

Item #	Strategic Planning Measure	Unit	September 2018
M-1.4b	Total Training During Work Hours Per Full Time Employee (109) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	9.44
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	3
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	1:15,220
M-3.2	Odor Complaints	#	0
M-3.4	Pollutant Removal	Total Pounds Removed	49,908,551
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	15%
M-5.2	Educational and Outreach Events	#	0
M-5.3	Community Partners	#	9
	Average Daily Flow	Total MGD for all Treatment Plants	148.55
	Industrial Waste Related System Issues	#	2

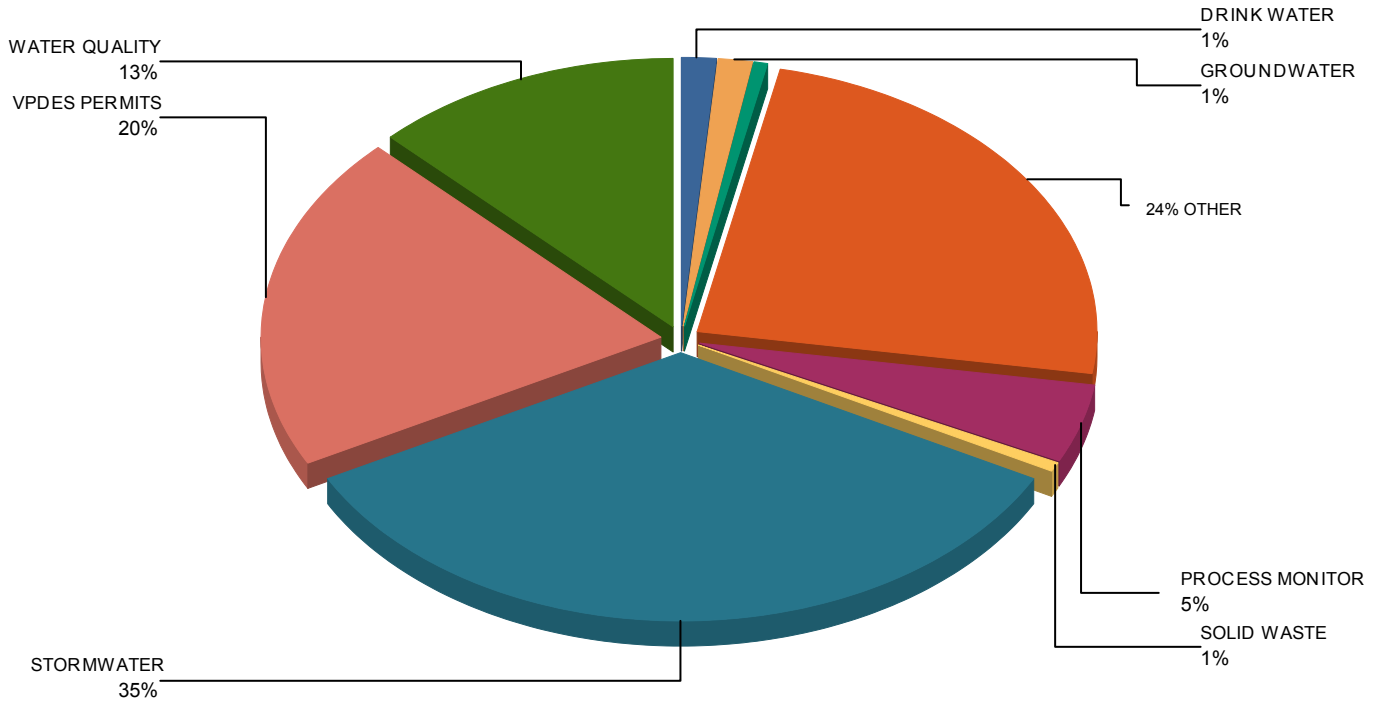
Respectfully submitted,

James Plett, PhD

Director of Water Quality

Municipal Assistance Billed Reimbursements per Service From 07/01/2018 to 09/30/2018

Attachment 1



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

Municipal Assistance Invoice Summary

From 7/1/2018 - 9/30/2018

Municipality	Reimbursements
Accomack County	\$2,251.48
Bedford County PSA	\$3,429.70
Buckingham County	\$590.15
City of Chesapeake	\$2,178.80
City of Hampton	\$4,773.52
City of Lynchburg	\$3,383.13
City of Norfolk	\$8,391.85
City of Portsmouth	\$9,562.14
City of Suffolk	\$5,656.22
City of Virginia Beach	\$7,933.51
Deerfield Corrections Center	\$817.81
HRPDC	\$51,819.91
Hanover County	\$768.77
Hopewell RWTF	\$4,578.28
James City County Service Authority	\$1,030.80
METRO Wastewater Reclamation District	\$998.75
New Kent County	\$8,565.84
Northampton County WWTP	\$873.38
Northumberland Co. - Callao WWTP	\$1,098.96
Prince William County	\$86.55
Rivanna Water and Sewer Authority	\$945.42
Spotsylvania County	\$3,040.70
Stafford County	\$97.70
Town of Cape Charles	\$5,869.10
Town of Lawrenceville	\$483.13
Town of Round Hill	\$155.06
Virginia Department of Health	\$21,007.83
Westmoreland County	\$676.61
Total Reimbursements 3rd Quarter	\$151,065.10



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

I. Projects in Process

Treatment Plant Operations

- **Tasks Completed (September 2018)**
 - Obtained and reviewed management action plan responses

- **Upcoming Tasks (October 2018)**
 - Obtain timelines for MAP implementation and finalize report

Business Continuity and Disaster Recovery

- **Tasks Completed (September 2018)**
 - Completed fieldwork tasks
 - Held preliminary findings discussions with process owners
 - Reviewed Hurricane Florence documentation
 - Completed draft of final report

- **Upcoming Tasks (October 2018)**
 - Communicate draft final report to process owners
 - Obtain and review management action plans
 - Finalize report

Customer Care

- **Upcoming Tasks (October 2018)**
 - Schedule entrance discussion
 - Communicate initial documentation requests
 - Schedule walkthrough discussions

II. Upcoming Projects (FY2019)

SC&H will begin the Customer Care Audit in October 2018. The 2018 Risk Assessment Refresh project will begin in November 2018.



III. Management Action Plan (MAP) Monitoring

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

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

The following describes the current project monitoring status.

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/2016	Dec-18	11	2	13
Biosolids Recycling	10/8/2016	Q4 2018- Pending Permit	7	1	8
HR Benefits	11/22/2016	Dec-18	15 (3 pending final verification)	0	15
Inventory	4/20/2017	Oct-18	1	4	5

Annual Metrics												
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%	69.00%	68.00%	85.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	*
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66
M-3.6	Alternate Energy	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	*
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	*
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	*
M-4.5	Total Operating Cost/MGD	Total Operating Expense/ 365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	*
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	*
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	*
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	*
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	*
	Total Debt Coverage	Net Revenue/Total Annual Debt	> 1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	*

* To be reported upon completion of the annual financial statements.

Monthly Updated Metrics													FY-19	FY-19
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	Aug-18	Sep-18
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	151.4	148.6
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	0	2
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	112%	104%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	109%	111%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$25,641,078	\$25,444,864
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	20%	19%	20%	18%	18%	15%	15%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	1	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	1:10147	1:15220
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	0	0
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	35,262,013	49,908,551
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	14%	15%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	19	35
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	23	31

EFFLUENT SUMMARY FOR SEPTEMBER 2018

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	10.95	61%	2	2.7	2	1	0.77	0.63	3.2	4.8	NA	NA	19
ATLANTIC	29.34	54%	11	5.2	7	<1	NA	NA	NA	NA	NA	NA	8
BOAT HARBOR	15.48	62%	4	7.7	7	1	0.66	0.56	14	13	NA	NA	6
CENT. MIDDLESEX	0.011	43%	<2	<1.0	1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	15.39	64%	12	12	16	4	0.98	0.83	30	30	NA	NA	13
JAMES RIVER	13.09	65%	1	1.6	1	1	0.28	0.35	6.9	8.0	NA	NA	1
KING WILLIAM	0.058	58%	<2	<1.0	NA	1	0.058	0.051	0.54	0.81	0.13	NA	NA
LAWNES POINT	0.053	106%	<2	5.2	<1	<1	0.030	0.016	0.51	0.44	NA	NA	NA
NANSEMOND	16.43	55%	3	3.6	1	2	0.59	1.1	4.2	4.2	NA	NA	6
SURRY, COUNTY	0.063	97%	2	<1.0	NA	2	NA	NA	NA	NA	0.22	0.06	0
SURRY, TOWN	0.058	96%	1	4.1	NA	11	NA	NA	NA	NA	0.59	<0.10	NA
URBANNA	0.062	62%	4	12	27	8	6.1	4.5	33	26	NA	0.07	NA
VIP	26.89	67%	1	1.7	3	1	1.0	0.79	6.1	6.4	NA	NA	4
WEST POINT	0.372	62%	14	11	9	3	2.9	2.7	15	17	NA	8.1	0
WILLIAMSBURG	7.87	35%	2	2.3	7	6	0.85	0.59	2.8	3.0	NA	NA	3
YORK RIVER	12.42	83%	2	1.2	1	3	0.26	0.30	5.0	4.0	NA	NA	3
	<u>148.55</u>												

	% of Capacity
North Shore	59%
South Shore	60%
Small Communities	68%

Tributaries	Tributary Summary					
	Annual Total Nitrogen		Annual Total Phosphorus			
	Discharged	Operational	Discharged	Operational		
	YTD	Projection CY18	YTD	Projection CY18		
	%	Lbs	%	%	Lbs	%
James River	58%	3,739,954	82%	58%	272,377	86%
York River	48%	209,018	72%	58%	15,335	79%
Rappahannock	224%	NA	NA	574%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY19 to Date: 1:15,220
Pounds of Pollutants Removed in FY19 to Date: 49,908,551
Pollutant Lbs Discharged/Permitted Discharge FY19 to Date: 15%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	5.01"	8.13"	6.20"
Normal for Month	5.89"	6.04"	4.95"
Year to Date Total	41.17"	46.39"	44.26"
Normal for YTD	40.01"	39.99"	37.88"

AIR EMISSIONS SUMMARY FOR SEPTEMBER 2018

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	BZ Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave (F)	12 hr ave (in. WC)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	pH 3 hr ave	Bypass Stack Use	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ARMY BASE	0	0	0	0	0	0	0	3	36	100	0
BOAT HARBOR	0	0	0	n/a	0	0	0	4	25	86	0
CHES-ELIZ	0	0	0	0	0	0	0	1	27	100	0
VIP	0	0	0	n/a	0	0	0	3	74	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	9	89	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	1
DEQ Request for Corrective Action (RCA):	0
DEQ Warning Letter:	0
DEQ Notice of Violation (NOV):	0
Other Air Permit Deviations:	0
Odor Complaints Received:	0
HRSD Odor Scrubber H2S Exceptions:	2