

Under current law, interest on the Series 2019A Bonds will be includable in gross income of the owners thereof for federal income tax purposes. See “TAX MATTERS” herein for a description of certain provisions regarding the Code that may affect the tax treatment of interest on the Series 2019A Bonds for certain bondholders. The District’s Enabling Act provides that the Series 2019A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, shall be exempt from taxation by the Commonwealth of Virginia and by any political subdivision thereof. See “TAX MATTERS” herein for further information.

**\$205,675,000**

**Hampton Roads Sanitation District, Virginia
Subordinate Wastewater Revenue Bonds,
Refunding Series 2019A (Federally Taxable)**

Dated: Date of Issue**Due: As shown on the inside cover**

The Series 2019A Bonds are being issued under an Amended and Restated Trust Agreement, dated as of March 1, 2016, as amended and supplemented (the “Trust Agreement”), between the Hampton Roads Sanitation District (the “District”) and The Bank of New York Mellon Trust Company, N.A., as trustee (in such capacity, the “Trustee”). The proceeds of the Series 2019A Bonds will be used, together with other available funds of the District, (i) to refund a portion of the District’s outstanding Senior Bonds and certain outstanding Bonds (each as defined herein), and (ii) to pay certain costs of issuing the Series 2019A Bonds.

The Series 2019A Bonds are issuable as registered bonds without coupons and will be initially registered only in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), serving as securities depository for the Series 2019A Bonds. The Series 2019A Bonds will be available to purchasers in denominations of \$5,000 principal amount and any whole multiple thereof only under the book-entry system maintained by DTC through brokers and dealers that are, or that act through, DTC Participants.

Principal, premium, if any, and interest will be paid by the Trustee, as bond registrar, to DTC or its nominee, which will remit the payments to the DTC Participants for subsequent disbursement. See “THE SERIES 2019A BONDS—Book-Entry Only System” herein. Interest on the Series 2019A Bonds is payable on each February 1 and August 1, commencing February 1, 2020.

The Series 2019A Bonds are subject to optional and mandatory redemption prior to maturity as described herein.

THE SERIES 2019A BONDS ARE SPECIAL OBLIGATIONS OF THE DISTRICT PAYABLE SOLELY FROM THE NET REVENUES AVAILABLE FOR DEBT SERVICE AND OTHER FUNDS PLEDGED TO SECURE THE SERIES 2019A BONDS UNDER THE TRUST AGREEMENT. THE SERIES 2019A BONDS SHALL NOT BE DEEMED TO CONSTITUTE A DEBT, OR A PLEDGE OF THE FAITH AND CREDIT, OF THE COMMONWEALTH OF VIRGINIA OR OF ANY COUNTY, CITY, TOWN OR POLITICAL SUBDIVISION THEREOF. THE ISSUANCE OF THE SERIES 2019A BONDS SHALL NOT DIRECTLY OR INDIRECTLY OR CONTINGENTLY OBLIGATE THE COMMONWEALTH OF VIRGINIA OR ANY COUNTY, CITY, TOWN OR POLITICAL SUBDIVISION THEREOF TO LEVY OR TO PLEDGE ANY FORM OF TAXATION WHATEVER THEREFOR.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series 2019A Bonds are offered when, as and if issued, subject to the approving opinion of Norton Rose Fulbright US LLP, Washington, D.C., Bond Counsel, and to certain other conditions. Certain legal matters will be passed upon for the District by Kellam, Pickrell, Cox & Anderson, a Professional Corporation, Norfolk, Virginia, and for the Underwriters by Kaufman & Canoles, a Professional Corporation, Richmond, Virginia. The Series 2019A Bonds are expected be available for delivery to The Depository Trust Company in New York, New York, on or about October 2, 2019.

Citigroup**FTN Financial Capital Markets****UBS**

August 29, 2019

\$205,675,000
Hampton Roads Sanitation District, Virginia
Subordinate Wastewater Revenue Bonds
Refunding Series 2019A (Federally Taxable)

MATURITIES, AMOUNTS, INTEREST RATES AND YIELDS

Base CUSIP Number: 409327[†]

\$165,300,000 Serial Bonds

<u>Due February 1</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>CUSIP[†] Suffix</u>
2021	\$2,985,000	1.694%	KZ5
2022	3,225,000	1.699	LA9
2023	3,275,000	1.762	LB7
2024	3,335,000	1.812	LC5
2025	3,390,000	1.863	LD3
2026	3,455,000	1.913	LE1
2027	11,535,000	2.013	LF8
2028	11,770,000	2.063	LG6
2029	12,000,000	2.113	LH4
2030	12,085,000	2.263	LJ0
2031	19,945,000	2.363	LK7
2032	20,570,000	2.463	LL5
2033	6,730,000	2.513	LM3
2034	21,815,000	2.563	LN1
2035	29,185,000	2.613	LP6

Price of all Serial Bonds 100%

\$40,375,000 2.782% Term Bonds due February 1, 2039 – CUSIP Suffix LQ4[†]

Price of Term Bond 100%

[†] CUSIP® is a registered trademark of the American Bankers Association. The CUSIP number listed above is being provided solely for the convenience of bondholders only, and the District does not make any representation with respect to such number or undertake any responsibility for its accuracy. The CUSIP number is subject to being changed after the issuance of the Series 2019A Bonds as a result of various subsequent actions including, but not limited to, a change in mode or defeasance as a whole or in part of the Series 2019A Bonds.

HAMPTON ROADS SANITATION DISTRICT

COMMISSIONERS

FREDERICK N. ELOFSON, CPA, *Chair*

MAURICE P. LYNCH, Ph.D., *Vice-Chair*

MICHAEL E. GLENN
WILLIE LEVENSTON, JR.
ELIZABETH A. TARASKI, Ph.D.

VISHNU K. LAKDAWALA, Ph.D.
STEPHEN C. RODRIGUEZ
MOLLY JOSEPH WARD

STAFF

EDWARD G. HENIFIN, P.E.
General Manager

JAY A. BERNAS, P.E.,
Director of Finance and Treasurer

CHARLES B. BOTT, Ph.D., P.E.
*Director of Water Technology and
Research*

DONALD C. CORRADO
*Director of Information
Technology*

STEVEN G. de MIK, CPA
Director of Operations

PAULA A. HOGG
Director of Talent Management

BRUCE W. HUSSELBEE, P.E.
Director of Engineering

JAMES J. PLETL, Ph.D.
Director of Water Quality

LEILA E. RICE, APR
Director of Communications

JENNIFER L. CASCIO
Secretary

COUNSEL, ADVISOR, TRUSTEE

KELLAM, PICKRELL, COX & ANDERSON, A PROFESSIONAL CORPORATION
General Counsel

JONES, BLECHMAN, WOLTZ & KELLY, P.C.
Associate Counsel

PFM FINANCIAL ADVISORS LLC
Financial Advisor

NORTON ROSE FULBRIGHT US LLP
Bond Counsel

AQUALAW, PLC
Special Counsel

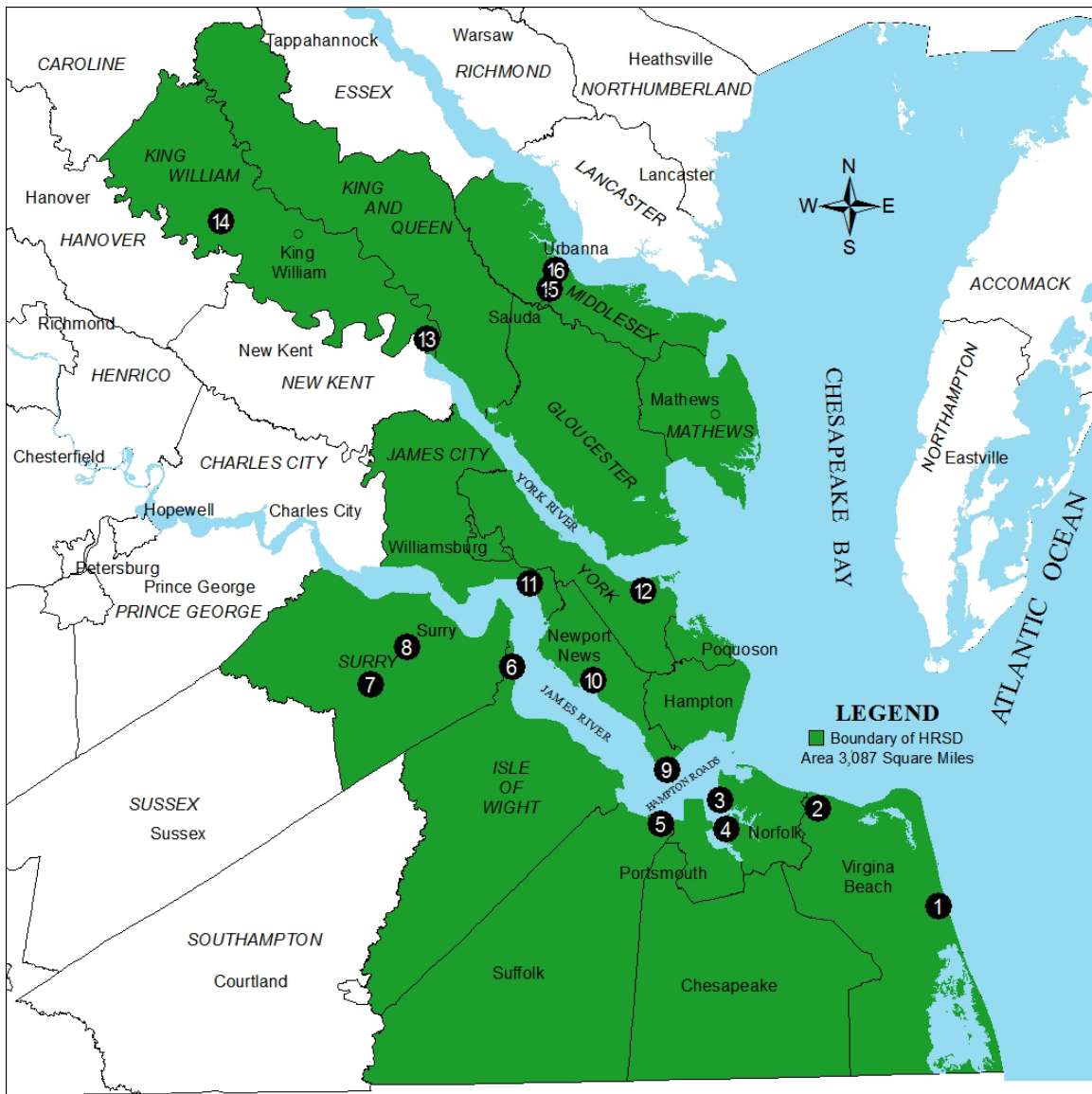
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.
Trustee and Bond Registrar

HRSD Service Area

Facilities include the following:

1. Atlantic, Virginia Beach
2. Chesapeake-Elizabeth, Va. Beach
3. Army Base, Norfolk
4. Virginia Initiative, Norfolk
5. Nansemond, Suffolk
6. Lawnes Point, Smithfield
7. County of Surry
8. Town of Surry
9. Boat Harbor, Newport News
10. James River, Newport News
11. Williamsburg, James City County
12. York River, York County
13. West Point, King William County
14. King William, King William County
15. Central Middlesex, Middlesex County
16. Urbanna, Middlesex County

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



CERTAIN STATEMENTS INCLUDED IN THIS OFFICIAL STATEMENT CONSTITUTE “FORWARD-LOOKING STATEMENTS” WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1933, AS AMENDED, AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. SUCH STATEMENTS ARE GENERALLY IDENTIFIABLE BY TERMS SUCH AS “PLAN,” “PROJECT,” “EXPECT,” “ANTICIPATE,” “INTEND,” “BELIEVE,” “ESTIMATE,” “BUDGET” OR OTHER SIMILAR WORDS. THE ACHIEVEMENT OF CERTAIN RESULTS OR OTHER EXPECTATIONS CONTAINED IN SUCH FORWARD-LOOKING STATEMENTS INVOLVES KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS THAT MAY CAUSE ACTUAL RESULTS, PERFORMANCE OR ACHIEVEMENTS DESCRIBED TO BE MATERIALLY DIFFERENT FROM ANY RESULTS, PERFORMANCES OR ACHIEVEMENTS EXPRESS OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. EXCEPT AS SPECIFICALLY SET FORTH HEREIN, THE DISTRICT DOES NOT PLAN TO ISSUE ANY UPDATES OR REVISIONS TO THOSE FORWARD-LOOKING STATEMENTS DUE TO CHANGES IN ITS EXPECTATIONS OR SUBSEQUENT EVENTS, CONDITIONS OR CIRCUMSTANCES ON WHICH SUCH STATEMENTS ARE BASED.

This Official Statement speaks as of its date except where specifically noted otherwise and is subject to change without notice. Neither the delivery of this Official Statement, any sale made hereunder, nor any filing of this Official Statement shall under any circumstances create an implication that there has been no change in the affairs of the District since the date of this Official Statement or imply that any information herein is accurate or complete as of any later date.

The Series 2019A Bonds are exempt from registration under the Securities Act of 1933, as amended. As obligations of a political subdivision of the Commonwealth of Virginia, the Series 2019A Bonds are also exempt from registration under the securities laws of Virginia.

No dealer, salesman or any other person has been authorized to give any information or to make any representation, other than the information and representations contained herein, in connection with the offering of the Series 2019A Bonds, and, if given or made, such information or representations must not be relied upon. This Official Statement does not constitute an offer to sell or solicitation of an offer to buy any of the Series 2019A Bonds in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibility to investors under the federal securities laws as applied to the facts and circumstances of the transactions contemplated by this Official Statement, but the Underwriters do not guarantee the accuracy or completeness of such information.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2019A BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

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Official Statement

Hampton Roads Sanitation District, Virginia

Relating to its

\$205,675,000

Subordinate Wastewater Revenue Bonds Refunding Series 2019A (Federally Taxable)

INTRODUCTION

This Official Statement, which includes the cover and inside cover pages hereof, the map and the appendices hereto, sets forth information concerning the Hampton Roads Sanitation District (the “District” or “HRSD”) and the District’s \$205,675,000 aggregate principal amount of Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable) (the “Series 2019A Bonds”).

The Series 2019A Bonds are being issued in accordance with the provisions of Chapter 66 of the Acts of Assembly of Virginia of 1960, as amended (the “Enabling Act”). On August 27, 2019, the Hampton Roads Sanitation District Commission (the “Commission”), the governing body of the District, authorized by resolution the issuance of the Series 2019A Bonds. The Commission is issuing the Series 2019A Bonds for the purpose of providing funds, together with other available funds, (i) to refund, in advance of their maturity, certain outstanding Senior Bonds and certain outstanding Bonds (the “Refunded Bonds”) and (ii) to pay certain expenses incurred in connection with the issuance of the Series 2019A Bonds by the District.

The Series 2019A Bonds are special obligations of the District payable solely from the Net Revenues Available for Debt Service (hereinafter defined) derived by the District from the operation of its Wastewater System (hereinafter defined) and other funds pledged to secure the Series 2019A Bonds under the Trust Agreement (hereinafter defined). See “SECURITY AND SOURCES OF PAYMENT” and “THE SYSTEM” herein. The Commission has determined to provide for the issuance of the Series 2019A Bonds under the Amended and Restated Trust Agreement, dated as of March 1, 2016 (the “Amended and Restated Trust Agreement”), as supplemented by the Seventh Supplemental Trust Agreement, dated as of October 1, 2019 (the “Seventh Supplemental Trust Agreement” and together with the Amended and Restated Trust Agreement, as so supplemented and as the same may be amended and further supplemented, the “Trust Agreement”), each by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee (in such capacity, the “Trustee”).

This Official Statement contains a brief description of the Series 2019A Bonds and the District, including its service area, governance and information regarding its operations and finances.

Appendix A contains the District’s Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2018, and includes additional information regarding the District’s operations and financial condition. Appendix B contains the definitions of certain terms used in this Official Statement. Capitalized terms used but not defined herein shall have the meanings given to such terms in the Trust Agreement. Brief descriptions and summaries of certain provisions of the Series 2019A Bonds, the Trust Agreement and the Seventh Supplemental Trust Agreement are included in Appendix C.

PLAN OF REFUNDING

Plan of Refunding

A portion of the proceeds of the Series 2019A Bonds, together with other available funds, will be applied to refund the Refunded Bonds, as described below.

The Refunded Bonds that are Senior Bonds issued under the Senior Trust Agreement are identified below:

Wastewater Revenue Bonds, Refunding Series 2014A

<u>Maturity (July 1)</u>	<u>Principal Amount</u>	<u>Redemption Date</u>	<u>Redemption Price</u>	<u>CUSIPs</u>
2026	\$8,225,000	7/1/2024	100%	409327 GN7
2027	8,650,000	7/1/2024	100	409327 GP2
2028	9,090,000	7/1/2024	100	409327 GQ0
2029	9,555,000	7/1/2024	100	409327 GR8

The Refunded Bonds that are Bonds issued under the Trust Agreement are identified below:

Subordinate Wastewater Revenue Bonds, Series 2016A

<u>Maturity (August 1)</u>	<u>Principal Amount</u>	<u>Redemption Date</u>	<u>Redemption Price</u>	<u>CUSIPs</u>
2030	\$17,825,000	8/1/2026	100%	409327 HH9
2031	18,735,000	8/1/2026	100	409327 HJ5
2032	4,990,000	8/1/2026	100	409327 HK2
2033	20,550,000	8/1/2026	100	409327 HL0
2034	21,085,000	8/1/2026	100	409327 HM8
2035	2,480,000	8/1/2026	100	409327 HN6
2036	2,590,000	8/1/2026	100	409327 HP1
2037	17,020,000	8/1/2026	100	409327 HQ9
2043	26,250,000	8/1/2026	100	409327 HR7

Subordinate Wastewater Revenue Bonds, Refunding Series 2017A

<u>Maturity (October 1)</u>	<u>Principal Amount</u>	<u>Redemption Date</u>	<u>Redemption Price</u>	<u>CUSIPs</u>
2034	\$5,570,000	10/1/2027	100%	409327 JH7
2035	5,860,000	10/1/2027	100	409327 JJ3

Subordinate Wastewater Revenue Bonds, Series 2018A

<u>Maturity (October 1)</u>	<u>Principal Amount</u>	<u>Redemption Date</u>	<u>Redemption Price</u>	<u>CUSIPs</u>
2034	\$2,085,000	10/1/2027	100%	409327 KN2
2035	2,195,000	10/1/2027	100	409327 KP7
2036	2,305,000	10/1/2027	100	409327 KQ5
2037	2,425,000	10/1/2027	100	409327 KR3
2038	2,550,000	10/1/2027	100	409327 KS1
2039	2,680,000	10/1/2027	100	409327 KT9
2040	2,815,000	10/1/2027	100	409327 KU6
2041	2,960,000	10/1/2027	100	409327 KV4
2042	3,110,000	10/1/2027	100	409327 KW2
2043	3,270,000	10/1/2027	100	409327 KX0
2047	14,850,000	10/1/2027	100	409327 KY8

To effect the refunding, a sufficient amount of the proceeds of the Series 2019A Bonds and other funds of the District will be deposited in two separate escrow accounts (each, an “Escrow Fund”) established by the District with The Bank of New York Mellon Trust Company, N.A. (in such capacity, the “Escrow Agent”), and will be invested in certain non-callable direct obligations or obligations the principal and interest on which are unconditionally guaranteed by the United States of America (“Defeasance Obligations”) that mature in amounts and pay interest at rates sufficient to pay, when due, the principal, applicable redemption premium, if any, and interest on the Refunded Bonds through their respective maturity or redemption dates, as applicable. The sufficiency of each Escrow Fund, including Defeasance Obligations and the income thereon, to pay such amounts will be verified by Bingham Arbitrage Rebate Services, Inc. See “VERIFICATION OF MATHEMATICAL COMPUTATIONS FOR THE REFUNDED BONDS.” The Escrow Agent will be given irrevocable instructions to call the callable Refunded Bonds for redemption on the applicable redemption dates and at the applicable redemption prices.

The District will apply \$66,315,162.34 of available funds (other than proceeds of the Series 2019A Bonds) to the purchase of Defeasance Obligations in connection with the refunding plan described above.

Future Financings

The District anticipates that it will finance a portion of its Capital Improvement Program through the issuance of Additional Bonds (as hereinafter defined), VRA Subordinate Obligations (as hereinafter defined), and other Indebtedness subordinate to Indebtedness secured by the Trust Agreement (“Junior Obligations”). See “SECURITY AND SOURCES OF PAYMENT—Outstanding Senior Obligations,” “—Additional Senior Obligations,” “—Parity Obligations,” and “—Additional Parity Obligations.” Any acceleration of the Capital Improvement Program could result in an acceleration of the date and, potentially, an increase the size of any issuance of Indebtedness by the District.

The District has entered into a Credit Agreement, dated as of October 30, 2015, with Bank of America, N.A. (as amended, the “Credit Agreement”), pursuant to which the bank provided a line of credit in the aggregate principal amount of up to \$90,000,000 (the “Line of Credit”). The District’s maximum outstanding authorization on the Line of Credit is currently \$1,000,000. The District does not intend to use the Line of Credit prior to January 1, 2020, to provide interim financing for projects included in the CIP. The Line of Credit constitutes a Junior Obligation under the Trust Agreement and is

secured on a subordinate basis from the lien on Net Revenues Available for Debt Service securing Parity Obligations.

The District has no current plans to issue additional Senior Obligations under the Senior Trust Agreement and plans to use the Trust Agreement as the principal operating lien for the issuance of indebtedness to finance the District's Capital Improvement Program. By a resolution adopted on August 27, 2019, the Commission has authorized the District to take such actions as are necessary to prohibit the future issuance of Additional Senior Obligations. Although the District anticipates that it will take such actions by December 31, 2019, no assurance can be given as to the actual timing thereof. See "SECURITY AND SOURCES OF PAYMENT—Additional Senior Obligations" below.

SOURCES AND USES OF FUNDS

Sources

Principal Amount of Series 2019A Bonds	\$205,675,000.00
Other District Funds	<u>66,355,162.34</u>
Total Sources of Funds	<u>\$272,030,162.34</u>

Uses

Deposit to Escrow Funds	\$271,027,077.63
Underwriters' Discount	442,090.69
Costs of Issuance	<u>560,994.02</u>
Total Uses of Funds	<u>\$272,030,162.34</u>

THE SERIES 2019A BONDS

Description

The Series 2019A Bonds will be dated, bear interest and mature as set forth on the cover and inside cover pages of this Official Statement. Interest on the Series 2019A Bonds will be calculated on the basis of a 360-day year of twelve 30-day months. The Series 2019A Bonds are issuable as registered bonds without coupons in the denomination of \$5,000 or any whole multiple thereof, as provided in the Trust Agreement. Interest will be payable on each February 1 and August 1, commencing February 1, 2020, to the person in whose name such bond is registered as of the applicable Regular Record Date, which is January 15 for interest due on February 1, and July 15 for interest due on August 1.

Book-Entry Only System

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the Series 2019A Bonds. The Series 2019A Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered bond certificate will be issued for each maturity of the Series 2019A Bonds and will be deposited with DTC. Additional information respecting DTC and its book entry system is contained in Appendix F.

The information in this section and in Appendix F concerning DTC and DTC's book-entry system has been obtained from sources that the District believes to be reliable, but the District takes no responsibility for the accuracy thereof.

DTC may discontinue providing its services as depository with respect to the Series 2019A Bonds at any time by giving reasonable notice to the District. Under such circumstances, if a successor depository is not obtained, certificates for the Series 2019A Bonds are required to be printed and delivered.

The District may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, certificates for the Series 2019A Bonds will be printed and delivered.

Redemption Provisions

Optional Redemption

The District may, at its option, redeem the Series 2019A Bonds due after February 1, 2029, prior to their respective maturities, as a whole or in part, on any date, beginning February 1, 2029, at a redemption price equal to the principal amount thereof, together with interest accrued to the date fixed for redemption.

Mandatory Redemption

The Series 2019A Bonds due on February 1, 2039, are subject to mandatory sinking fund redemption on February 1 in the following years in the following principal amounts (“Sinking Fund Requirements”) at a redemption price equal to the principal amount thereof, together with interest accrued to the date of redemption.

Term Bonds due February 1, 2039

<u>Year</u>	<u>Sinking Fund Requirement</u>
2036	\$10,890,000
2037	5,165,000
2038	19,245,000
2039 [†]	5,075,000

[†] Unamortized balance at maturity.

In the event of a partial optional redemption or purchase of such term bonds, the District will credit the principal amount of such term bonds so purchased or redeemed against the Sinking Fund Requirements for the remaining term bonds outstanding in such amounts and in such years as it in its sole discretion shall determine.

Make-Whole Optional Redemption

The Series 2019A Bonds are subject to redemption at the option of the District, as a whole or in part, at any time, at the Make-Whole Redemption Price (as defined herein). The “Make-Whole Redemption Price” is the greater of (i) 100% of the principal amount of the Series 2019A Bonds to be redeemed and (ii) the sum of the present value of the remaining scheduled payments of principal and interest on the Series 2019A Bonds to be redeemed, not including any portion of those payments of interest accrued and unpaid as of the date on which the Series 2019A Bonds are to be redeemed, discounted to the date on which the Series 2019A Bonds are to be redeemed on a semi-annual basis, assuming a 360-day year consisting of twelve 30-day months, at the Treasury Rate (defined below) plus 0.15%; plus in each case, accrued and unpaid interest on the Series 2019A Bonds to be redeemed on the redemption date.

For purpose of determining the Make-Whole Redemption Price, the following definitions apply:

“Treasury Rate” means, with respect to any redemption date for any particular Series 2019A Bond, the greater of:

(i) the yield to maturity as of such redemption date of the United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two business days prior to the redemption date (excluding inflation indexed securities) (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to maturity; provided, however, that if the period from the redemption date to maturity is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used; all as will be determined by an independent accounting firm, investment banking firm or financial advisor retained by the District at the District’s expense and such determination shall be conclusive and binding on the owners of the Series 2019A Bonds, and

(ii) the rate per annum, expressed as a percentage of the principal amount, equal to the semiannual equivalent yield to maturity or interpolated maturity of the Comparable Treasury Issue (defined below), assuming that the Comparable Treasury Issue is purchased on the redemption date for a price equal to the Comparable Treasury Price (defined below), as calculated by the Designated Investment Banker (defined below).

“Comparable Treasury Issue” means, with respect to any redemption date for a particular Series 2019A Bond, the United States Treasury security or securities selected by the Designated Investment Banker that has an actual or interpolated maturity comparable to the remaining average life of the Series 2019A Bond to be redeemed.

“Comparable Treasury Price” means, with respect to any redemption date for a particular Series 2019A Bond, (i) if the Designated Investment Banker receives at least four Reference Treasury Dealer Quotations (defined below), the average of such quotations for such redemption date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (ii) if the Designated Investment Banker obtains fewer than four Reference Treasury Dealer Quotations, the average of all such quotations.

“Designated Investment Banker” means one of the Reference Treasury Dealers appointed by the District.

“Reference Treasury Dealer” means each of the four firms, specified by the District, from time to time, that are primary United States government securities dealers in the City of New York, New York (each a “Primary Treasury Dealer”); provided, however, that if any of them ceases to be a Primary Treasury Dealer, the District will substitute another Primary Treasury Dealer.

“Reference Treasury Dealer Quotations” means, with respect to each Reference Treasury Dealer and any redemption date for a particular Series 2019A Bond, the average, as determined by the Designated Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Designated Investment Banker by such Reference Treasury Dealer at 3:30 P.M., New York City time, on the third Business Day preceding such redemption date.

Any Make-Whole Redemption Price of Series 2019A Bonds to be redeemed pursuant to the provisions described under this section will be determined by an independent accounting firm, investment

banking firm or financial advisor retained by the District to calculate such redemption price. The District may conclusively rely on the determination of such redemption price by such independent accounting firm, investment banking firm or financial advisor and will not be liable for such reliance.

Selection of Series 2019A Bonds for Redemption

Series 2019A Bonds may be redeemed only in increments of \$5,000 or whole multiples thereof. If less than all the Series 2019A Bonds are called for redemption, the Series 2019A Bonds or portions thereof will be redeemed from the maturities selected by the District. If less than all of the Series 2019A Bonds of a maturity are to be redeemed, the particular Series 2019A Bonds are to be selected for redemption as the Trustee in its sole discretion shall determine. If a portion of a Series 2019A Bond is called for redemption, a new Series 2019A Bond in a principal amount equal to the unredeemed portion thereof will be issued to the bondholder upon the surrender thereof.

Defeasance of Series 2019A Bonds

Persons considering the purchase of a Series 2019A Bond should be aware that a defeasance of a Series 2019A Bond by the District prior to maturity could result in the realization of gain or loss by the beneficial owner of the Series 2019A Bond for federal income tax purposes, without any corresponding receipt of money by the beneficial owner. Such gain or loss generally would be subject to recognition for the tax year in which such realization occurs, as in the case of a sale or exchange. Owners are advised to consult their own tax advisers with respect to the tax consequences resulting from such events. See “TAX MATTERS—Defeasance” herein.

Notice of Redemption

Notice of redemption is to be given not more than 60 nor less than 30 days before the redemption date by first class mail to the registered owner or owners of the Series 2019A Bonds or portions thereof to be redeemed; provided, however, that any defect in such notice or the failure so to mail any such notice to any owners of any Series 2019A Bonds will not affect the validity of the proceedings for the redemption of any other Series 2019A Bonds. **During the period that DTC or its nominee is the registered holder of the Series 2019A Bonds, the Bond Registrar will not be responsible for mailing notices of redemption to the beneficial owners of the Series 2019A Bonds. See “—Book-Entry Only System” above and Appendix F.** Each such notice will set forth the Series 2019A Bonds or portions thereof to be redeemed, the date fixed for redemption, the redemption price to be paid, and if less than all the Series 2019A Bonds will be called for redemption, the maturities of the Series 2019A Bonds to be redeemed and shall otherwise comply with Securities Exchange Act of 1934 Release No. 34-23856, dated December 3, 1986, including the requirement that notice be given to all organizations registered with the Securities and Exchange Commission as securities depositories, and to one or more information services of national recognition that disseminate redemption information with respect to tax-exempt securities. If any Series 2019A Bond is to be redeemed in part only, the notice of redemption will state also that on or after the redemption date, upon surrender of such Series 2019A Bond, a new Series 2019A Bond in an authorized denomination and in principal amount equal to the unredeemed portion of such Series 2019A Bond will be issued.

Any notice of optional redemption of the Series 2019A Bonds may state that it is conditioned upon there being available an amount of money sufficient to pay the redemption price, consisting of par plus interest accrued and unpaid to the redemption date, and any conditional notice so given may be rescinded at any time before the payment of the redemption price if any such condition so specified is not satisfied. If a redemption does not occur after a conditional notice is given due to an insufficient amount

of funds on deposit with the Trustee, the corresponding notice of redemption will be deemed to be revoked.

If the District gives an unconditional notice of redemption, then on the redemption date the Series 2019A Bonds called for redemption will become due and payable. If the District gives a conditional notice of redemption and money to pay the redemption price of the affected Series 2019A Bonds has been set aside in escrow with the Trustee for the purpose of paying such Series 2019A Bonds, then on the redemption date such Series 2019A Bonds will become due and payable. In either case, if on the redemption date the Trustee holds money to pay the Series 2019A Bonds called for redemption, thereafter no interest will accrue on those Series 2019A Bonds, and a Bondholder's right will be to receive payment of the redemption price upon surrender of those Series 2019A Bonds.

SECURITY AND SOURCES OF PAYMENT

THE SERIES 2019A BONDS ARE SPECIAL OBLIGATIONS OF THE DISTRICT PAYABLE SOLELY FROM THE NET REVENUES AVAILABLE FOR DEBT SERVICE AND OTHER FUNDS PLEDGED TO SECURE THE SERIES 2019A BONDS UNDER THE TRUST AGREEMENT. THE SERIES 2019A BONDS SHALL NOT BE DEEMED TO CONSTITUTE A DEBT, OR A PLEDGE OF THE FAITH AND CREDIT, OF THE COMMONWEALTH OF VIRGINIA OR OF ANY COUNTY, CITY, TOWN OR POLITICAL SUBDIVISION THEREOF. THE ISSUANCE OF THE SERIES 2019A BONDS SHALL NOT DIRECTLY OR INDIRECTLY OR CONTINGENTLY OBLIGATE THE COMMONWEALTH OF VIRGINIA OR ANY COUNTY, CITY, TOWN OR POLITICAL SUBDIVISION THEREOF TO LEVY OR TO PLEDGE ANY FORM OF TAXATION WHATEVER THEREFOR.

General

Principal of, premium, if any, and interest on the Series 2019A Bonds will be payable from "Net Revenues Available for Debt Service" of the District pledged to the payment thereof and money held in certain funds and accounts under the Trust Agreement.

"Net Revenues Available for Debt Service" means all Net Revenues less debt service on Senior Obligations.

The realization of amounts to be derived upon the enforcement of the Series 2019A Bonds will depend upon the exercise of various remedies specified in the Trust Agreement. These and other remedies may, in many respects, require judicial action of a nature that is often subject to discretion and delay. Under existing laws, the remedies specified in the Trust Agreement may not be readily available or may be limited. A court may decide not to order the specific performance of the covenants contained in the Trust Agreement. The various legal opinions to be delivered concurrently with the delivery of the Series 2019A Bonds will be qualified as to the enforceability of the various legal instruments by limitations imposed by state and federal laws, rulings and decisions affecting remedies and by bankruptcy, fraudulent conveyance, reorganization and other laws affecting the enforcement of creditors' rights generally.

Under the Trust Agreement, the District is subject to covenants relating to maintenance of a specified Long-Term Debt Service Coverage Ratio and restricting, among other things, incurrence of Indebtedness and the existence of liens on Property. See "—Limitations on Indebtedness" and "—Limitation on Creation of Liens" in Appendix C hereto.

Rate Covenant

In the Trust Agreement, the District covenants to set and revise its rates and charges for facilities, services and products such that the Net Revenues, calculated at the end of each Fiscal Year, will equal at least 120% of the sum of (a) the Principal and Interest Requirements (as defined in the Senior Trust Agreement) on Senior Obligations and (b) the Principal and Interest Requirements on Parity Obligations (the “Rate Covenant”). If, for any reason, the Net Revenues are insufficient to satisfy the foregoing covenant, the District shall within one hundred and twenty (120) days adjust and increase its rates, fees and other charges (to the extent permitted by the Enabling Act) or reduce its current expenses so as to provide sufficient Net Revenues to satisfy the Rate Covenant.

On or before the last day of each Fiscal Year, the District will review the adequacy of its rates, fees and other charges for the next Fiscal Year, and, if such review indicates the District’s rates, fees and other charges are insufficient to satisfy the Rate Covenant, the District will promptly take appropriate action to increase its rates, fees and other charges or reduce its current expenses to cure any deficiency. See “—Rate Covenant” in Appendix C hereto.

Outstanding Senior Obligations

As of August 27, 2019, the District has outstanding four series of Bonds constituting Senior Obligations under the Senior Trust Agreement, including its Wastewater Revenue Bonds, Series 2009 (the “Senior 2009 Bonds”), of which \$120,140,000 principal amount is outstanding, its Wastewater Revenue Bonds, Series 2011 (the “Senior 2011 Bonds”), of which \$1,525,000 principal amount is outstanding, its Wastewater Revenue Bonds, Series 2012 (the “Senior 2012 Bonds”), of which \$5,770,000 principal amount is outstanding, and its Wastewater Revenue Bonds, Refunding Series 2014A (the “Senior 2014 Bonds”), of which \$100,060,000 principal amount is outstanding.

Since May 2009, the District obtained seven loans from the Virginia Resources Authority Revolving Fund and issued, in evidence of its obligations to repay such loans, its bonds constituting Senior Obligations under the Senior Trust Agreement (the “VRA Senior Bonds” and, together with the Senior Bonds, “Senior Obligations”). Such VRA Senior Bonds are secured under the Senior Trust Agreement on a parity with all other Senior Obligations, including the Senior 2009 Bonds, the Senior 2011 Bonds, the Senior 2012 Bonds and the Senior 2014 Bonds. As of August 27, 2019, \$79,914,507 of such VRA Senior Bonds were outstanding, with no remaining undrawn authorized amount. See also “—Parity Obligations” below.

Additional Senior Obligations

Under the Senior Trust Agreement, the District may issue and incur additional Senior Obligations for the District’s Capital Improvement Program or to refund outstanding Senior Obligations subject to the District’s demonstrating its compliance with the conditions for the incurrence thereof under the Senior Trust Agreement or the new Senior Obligations qualifying for an exception thereto.

At this time, the District does not currently intend to issue additional Senior Obligations under the Senior Trust Agreement and instead plans to use the Trust Agreement as the principal operating lien for the issuance of indebtedness to finance the District’s Capital Improvement Program. In addition, as market conditions permit, the District intends to refund outstanding Senior Obligations with the proceeds of Bonds issued under the Trust Agreement and, subject to certain conditions, certain VRA Senior Bonds will become VRA Subordinate Obligations. By a resolution adopted on August 27, 2019, the Commission has authorized the District to take such actions as are necessary to prohibit the future

issuance of Additional Senior Obligations. Although the District anticipates that it will take such actions by December 31, 2019, no assurance can be given as to the actual timing thereof.

Parity Obligations

As of August 27, 2019, the District has outstanding five series of Bonds constituting Parity Obligations under the Trust Agreement, including its Subordinate Wastewater Revenue Bonds, Refunding Series 2012 (Federally Taxable) (the “Subordinate 2012 Bonds”), of which \$600,000 principal amount is outstanding, its Subordinate Wastewater Revenue Bonds, Series 2016A (the “Subordinate 2016A Bonds”), of which \$228,320,000 principal amount is outstanding and its variable rate Subordinate Wastewater Revenue Bonds, Series 2016B (the “Subordinate 2016B Bonds,” and together with the Subordinate 2016A Bonds, the “Subordinate 2016 Bonds”), of which \$50,000,000 principal amount is outstanding, its Subordinate Wastewater Revenue Bonds, Refunding Series 2017A (the “Subordinate 2017 Bonds”), of which \$83,485,000 principal amount is outstanding, and its Subordinate Wastewater Revenue Bonds, Series 2018A (the “Subordinate 2018 Bonds”), of which \$62,715,000 principal amount is outstanding.

In addition to the VRA Senior Bonds described under “—Outstanding Senior Obligations” above, since 1993 the District has borrowed over \$177 million from the Virginia Resources Authority Revolving Loan Fund and issued, in evidence of its obligations to repay such loans, 16 issues of bonds that are outstanding Parity Indebtedness and recognized as such under the Trust Agreement (the “VRA Subordinate Obligations” and collectively, with the Subordinate 2012 Bonds, the Subordinate 2016 Bonds, the Subordinate 2017 Bonds, the Subordinate 2018 Bonds, the Series 2019A Bonds, when, as and if issued, and other Bonds or additional VRA Subordinate Obligations issued from time to time under the provisions of the Trust Agreement, the “Parity Obligations”). As of August 29, 2019, the outstanding drawn amount of the VRA Subordinate Obligations was \$90.0 million, with an undrawn authorized amount of \$35.2 million. The terms of the VRA Subordinate Obligations generally state that the lien thereof on the Net Revenues of the District is in all respects subordinate and inferior to the lien thereon of Senior Obligations outstanding under the Senior Trust Agreement. Generally, after an initial period where no interest accrues on such VRA Subordinate Obligations, interest accrues on the disbursed principal of the outstanding VRA Subordinate Obligations at interest rates ranging from 1.70% to 3.75% per annum, and principal and interest are payable in installments over the 20-year terms of the VRA Subordinate Obligations. The VRA Subordinate Obligations have been issued for various improvements and upgrades at several of the District’s treatment plants. See the table “DEBT SERVICE REQUIREMENTS FOR SENIOR OBLIGATIONS AND PARITY OBLIGATIONS” and “—Limitation on Creation of Liens” in Appendix C. The Series 2019A Bonds are on parity under the Trust Agreement with the Outstanding VRA Subordinate Obligations as to their subordinate lien on the Net Revenues of the District.

Additional Parity Obligations

Under the Trust Agreement, the District may issue Additional Parity Obligations, including Additional Bonds and VRA Subordinate Obligations, for the District’s Capital Improvement Program or to refund outstanding Senior Indebtedness or Parity Obligations subject to the District’s demonstrating its compliance with the conditions for the incurrence thereof under the Trust Agreement or qualifying for an exception thereto. The District anticipates that it will finance a portion of its Capital Improvement Program with future issues of Additional Parity Obligations, which may be evidenced by additional VRA Subordinate Obligations, and Junior Obligations, which are subordinate to Parity Obligations. See “—Limitations on Indebtedness” in Appendix C.

Amendments Relating to VRA Obligations

Pursuant to a Master Financing Agreement, dated as of February 1, 2016, as amended and supplemented (the “VRA Financing Agreement”), between the District and VRA relating to the VRA Senior Bonds and the VRA Subordinate Obligations (collectively, the “VRA Obligations”), VRA and the District have amended and restated all of the Financing Agreements pursuant to which the VRA Obligations were issued and have agreed that, under certain conditions set forth in the VRA Financing Agreement, some or all of the VRA Senior Bonds will become VRA Subordinate Obligations secured as Parity Obligations under the Trust Agreement and will no longer be Senior Obligations secured under the Senior Trust Agreement (the “Migrating VRA Senior Bonds”). The Migrating VRA Senior Bonds will, from time to time, convert from Senior Obligations to VRA Subordinate Obligations, subject to the following conditions set forth in the VRA Financing Agreement:

- (a) There are no existing defaults or events of default under the terms of any debt of the District;
- (b) The Senior Trust Agreement is legally closed to the issuance of additional debt (See “—Additional Senior Obligations” above);
- (c) The District maintains at least a “AA-” or equivalent rating by two nationally-recognized statistical rating organizations on its debt outstanding under the Trust Agreement;
- (d) The District has not issued any Senior Obligations after the date of the VRA Financing Agreement;
- (e) Beginning with its Fiscal Year ended June 30, 2017, the District demonstrates that it has complied with the budgetary principles of its financial policy in effect as of the dated date of the VRA Financing Agreement to budget for minimum total debt service coverage of 1.4 times, i.e., such budgetary principles providing in pertinent part that the District will adopt operating and capital budgets that it projects will enable the District to maintain net revenues at a minimum of 1.4 times total debt service requirements, and in calculating compliance with the foregoing, the District may make reasonable adjustments to net revenues as presented on a GAAP basis;
- (f) Receipt by the District of various certificates and opinions, in form and substance satisfactory to VRA; and
- (g) The District has amortized or defeased its Senior Obligations such that the total par amount of debt outstanding under the Senior Trust Agreement is 15% or less of the par amount of the District’s total debt outstanding (taking into account the Migrating VRA Senior Bonds).

If only conditions (a) through (f) above are met (and condition (g) is not), the Migrating VRA Senior Bonds are to migrate from time to time to the position of Parity Obligations on a pro rata basis such that the ratio of VRA to District debt with a pledge of Net Revenues senior to the Parity Bonds is maintained at approximately 16.5% per Fiscal Year. Unless VRA and the District agree otherwise in writing, the Migrating VRA Senior Bonds are to migrate to the position of VRA Subordinate Obligations in reverse order of maturity. The Migrating VRA Senior Bonds may become VRA Subordinate Obligations without meeting any of the incurrence tests set forth in the Trust Agreement. See “—Limitations on Indebtedness” in Appendix C.

Once a Migrating VRA Senior Bond has migrated to the position of a Parity Obligation, such migration will not be reversed at a later date due to the District no longer meeting conditions (a), (c), (e) or (g) set forth above.

The conditions to migration of VRA Senior Bonds to parity lien status are not covenants with VRA (or under the Senior Trust Agreement or the Trust Agreement), and any failure of the District to meet such conditions will not constitute a default under the VRA Financing Agreement, the Senior Trust Agreement or the Trust Agreement. The sole consequence of a failure to meet any such condition under the VRA Financing Agreement would be that the VRA Senior Bonds would not convert from senior lien status to parity lien status pursuant to the VRA Financing Agreement.

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**DEBT SERVICE REQUIREMENTS
FOR PARITY OBLIGATIONS^(*)(†)**

Series 2019A Bonds					
Fiscal Year Ending June 30,	<u>Principal</u>	<u>Interest</u>	<u>Debt Service</u>	Outstanding Parity Obligations <u>Debt Service^(‡)</u>	Total Parity Obligations Debt <u>Service</u>
2020	-	\$1,635,199	\$1,635,199	\$16,201,726	\$17,836,925
2021	\$2,985,000	4,946,822	7,931,822	22,436,152	30,367,974
2022	3,225,000	4,896,256	8,121,256	24,862,999	32,984,255
2023	3,275,000	4,841,463	8,116,463	22,506,366	30,622,829
2024	3,335,000	4,783,758	8,118,758	22,296,265	30,415,023
2025	3,390,000	4,723,327	8,113,327	22,298,515	30,411,843
2026	3,455,000	4,660,172	8,115,172	22,709,497	30,824,669
2027	11,535,000	4,594,078	16,129,078	28,010,581	44,139,659
2028	11,770,000	4,361,878	16,131,878	24,569,511	40,701,389
2029	12,000,000	4,119,063	16,119,063	24,524,190	40,643,253
2030	12,085,000	3,865,503	15,950,503	24,519,440	40,469,943
2031	19,945,000	3,592,019	23,537,019	17,929,082	41,466,102
2032	20,570,000	3,120,719	23,690,719	15,937,040	39,627,759
2033	6,730,000	2,614,080	9,344,080	30,276,690	39,620,770
2034	21,815,000	2,444,955	24,259,955	15,358,840	39,618,795
2035	29,185,000	1,885,837	31,070,837	8,141,403	39,212,239
2036	10,890,000	1,123,233	12,013,233	24,350,211	36,363,443
2037	5,165,000	820,273	5,985,273	30,502,940	36,488,213
2038	19,245,000	676,582	19,921,582	16,396,644	36,318,227
2039	5,075,000	141,187	5,216,187	16,390,948	21,607,135
2040	-	-	-	13,889,648	13,889,648
2041	-	-	-	13,631,811	13,631,811
2042	-	-	-	13,378,019	13,378,019
2043	-	-	-	9,532,757	9,532,757
2044	-	-	-	10,176,446	10,176,446
2045	-	-	-	12,104,200	12,104,200
2046	-	-	-	12,050,077	12,050,077
2047	-	-	-	8,944,706	8,944,706
2048	-	-	-	525,392	525,392
2049	-	-	-	444,446	444,446
TOTAL	<u>\$205,675,000</u>	<u>\$63,846,402</u>	<u>\$269,521,402</u>	<u>\$524,896,546</u>	<u>\$794,417,948</u>

(*) Numbers may not add to totals due to rounding. Debt service is shown in the year in which the same comes due.

(†) Total Principal and Interest payments on the District's Parity Obligations as of August 29, 2019, net of debt service on the Refunded Bonds that are Parity Obligations.

(‡) Assumes that none of the VRA Senior Bonds become Migrating VRA Senior Bonds. The Subordinate 2016B Bonds, which constitute Variable Rate Indebtedness, are assumed to bear interest at 2.50%. No assurance can be given, however, that the rate on the Subordinate 2016B Bonds will not be higher than assumed above. Debt service is shown net of debt service on the Refunded Bonds that are Parity Obligations.

**DEBT SERVICE REQUIREMENTS
FOR SENIOR OBLIGATIONS AND PARITY OBLIGATIONS^(*)(†)**

Fiscal Year Ending June 30,	Total Senior Obligations Debt Service^(‡)	Total Parity Obligations Debt Service^(§)	Total Debt Service
2020	\$23,862,183	\$17,836,925	\$41,699,108
2021	30,133,422	30,367,974	60,501,396
2022	28,597,591	32,984,255	61,581,846
2023	31,780,214	30,622,829	62,403,044
2024	31,697,648	30,415,023	62,112,671
2025	31,612,822	30,411,843	62,024,665
2026	30,856,625	30,824,669	61,681,294
2027	17,366,713	44,139,659	61,506,372
2028	17,262,525	40,701,389	57,963,914
2029	17,156,999	40,643,253	57,800,252
2030	17,044,700	40,469,943	57,514,643
2031	16,466,737	41,466,102	57,932,839
2032	13,327,125	39,627,759	52,954,885
2033	11,374,335	39,620,770	50,995,105
2034	9,257,583	39,618,795	48,876,379
2035	9,121,146	39,212,239	48,333,385
2036	8,979,755	36,363,443	45,343,198
2037	8,832,825	36,488,213	45,321,037
2038	8,679,768	36,318,227	44,997,995
2039	8,519,999	21,607,135	30,127,134
2040	8,352,932	13,889,648	22,242,580
2041	-	13,631,811	13,631,811
2042	-	13,378,019	13,378,019
2043	-	9,532,757	9,532,757
2044	-	10,176,446	10,176,446
2045	-	12,104,200	12,104,200
2046	-	12,050,077	12,050,077
2047	-	8,944,706	8,944,706
2048	-	525,392	525,392
2049	-	444,446	444,446
TOTAL	<u>\$380,283,649</u>	<u>\$794,417,948</u>	<u>\$1,174,701,597</u>

(*) Numbers may not add to totals due to rounding. Debt service is shown in the year in which the same comes due.

(†) Total Principal and Interest payments on the District's Senior Obligations and Parity Obligations as of August 29, 2019, net of debt service on the Refunded Bonds.

(‡) See "SECURITY AND SOURCES OF PAYMENT—Outstanding Senior Obligations." Debt service is shown net of debt service on the Refunded Bonds.

(§) Assumes that none of the VRA Senior Bonds become Migrating VRA Senior Bonds. The Subordinate 2016B Bonds, which constitute Variable Rate Indebtedness, are assumed to bear interest at 2.50%. No assurance can be given, however, that the rate on the Subordinate 2016B Bonds will not be higher than assumed above. The interest on the Series 2009B Build America Bonds does not account for expected subsidy payments. Debt service is shown net of debt service on the Refunded Bonds.

HAMPTON ROADS SANITATION DISTRICT

Authorization and Purpose

Creation of the District was approved in a 1940 public referendum authorized by the Virginia General Assembly. A political subdivision of the Commonwealth of Virginia (the “Commonwealth”), the District was established as a governmental instrumentality to provide for the public health and welfare. Chapter 66, Acts of the Assembly of 1960, validated and confirmed prior legislation creating the District and repealed earlier acts of the Virginia General Assembly enacted with respect to the District.

The District was created for the specific purpose of abating pollution in the Hampton Roads area of Virginia through the interception of existing wastewater outfalls, the construction of wastewater treatment facilities and the installation of interceptors throughout the service area. The District does not provide water, solid waste disposal or storm water mitigation. The cities, counties and military establishments the District serves provide those services. With the exception of the Counties of King William, King and Queen, Middlesex, Mathews and Surry, excluding the Town of Claremont, the collection system, consisting of lateral sewers and sub trunk facilities that carry wastewater from industries, homes, apartments and businesses to the District’s interceptor system, are the responsibility of the various cities, counties and military establishments within the District.

The District is a separate legal entity from the various cities, towns, counties and military establishments within the District. See “—The Commission” below.

History

The District traces its origins 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.” Subsequent studies recommended a public body to construct and operate a sewage system in the area.

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.” In a referendum held on November 5, 1940, a majority of the voters approved the creation of the District.

The District’s first construction project, the Warwick County Trunk Sewer, began on June 26, 1946. The District commenced operations on July 1, 1946, using facilities acquired from the United States Government. The District’s first treatment plant, the Army Base Plant, commenced operations on October 14, 1947. Since that time, the facilities of the District have been expanded to provide wastewater treatment service to all major population centers within its boundaries.

The Commission

The District operates under the direction of its governing body, the Hampton Roads Sanitation District Commission (the “Commission”), comprised of eight members appointed by the Governor for staggered terms of four years. Members of the Commission may be reappointed without limitation and may be suspended or removed by the Governor at his pleasure. The Commission annually elects one of its members as Chair and another as Vice-Chair. Under the Enabling Act, the eight members of the Commission must be residents of the cities and counties of the District as follows: one member from each of the cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach; one

member from the City of Suffolk, Isle of Wight County or Surry County; and one member from the City of Williamsburg or Poquoson, or Gloucester, James City, King William, King and Queen, Mathews, Middlesex, or York County or the Town of Urbanna.

The Commission is empowered, among other things, to (1) construct and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a wastewater system or systems, either within or without or partly within and partly without the corporate limits of the District, and to construct wastewater improvements within the corporate limits of the District, (2) issue the District's bonds, payable solely from revenues, to pay all or part of the cost of a wastewater system, (3) fix, revise, charge and collect rates, fees and charges for the use of and for the services of any system operated by the District, (4) enter into contracts with any unit, including counties, cities and other authorities, relating to the furnishing of services of the District, and (5) acquire real or personal property necessary in connection with wastewater systems or wastewater improvements.

The current members of the Commission and their biographies are set forth below.

<u>Commissioners</u>	<u>Residence</u>	<u>Occupation</u>	<u>Term Expires June 7,</u>
Frederick N. Elofson, CPA, <i>Chair</i>	Newport News	Retired Certified Public Accountant and Personal Financial Specialist, Dixon Hughes Goodman LLP	2020
Maurice P. Lynch, Ph.D., <i>Vice-Chair</i>	Williamsburg	Professor Emeritus, Virginia Institute of Marine Science, College of William and Mary	2021
Michael E. Glenn	Norfolk	President, Luna Development Services, LLC	2023
Vishnu K. Lakdawala, Ph.D.	Virginia Beach	Associate Professor, Electrical and Computer Engineering, Old Dominion University	2022
Willie Levenston, Jr.	Portsmouth	Retired Supervisor Electronics Engineer, Norfolk Naval Shipyard	2023
Stephen C. Rodriguez	Chesapeake	Owner and President, Cruco, Inc.	2020
Elizabeth A. Taraski, Ph.D.	Suffolk	President and CEO, Nansemond River Preservation Alliance	2021
Molly Joseph Ward	Hampton	Treasurer, City of Hampton, Virginia	2020

Frederick N. Elofson, CPA, Chair. Mr. Elofson, a member of the Commission since July 1, 2006, is a Certified Public Accountant and retired senior partner in Dixon Hughes Goodman LLP, in Newport News. He earned a bachelor's degree in accounting from West Virginia University and has nearly 40 years of accounting experience. A former chair of the board and treasurer of the Peninsula Chamber of Commerce, Mr. Elofson remains active in numerous professional and civic organizations. He is a past treasurer and board member of the Schooner Virginia Project, a past president of the Peninsula Estate Planning Council, treasurer and Sunday School teacher at First Baptist Church Newport News, member of the Committee on Investments for the City of Newport News Retirement Fund and has been honored as a Chamber of Commerce Volunteer of the Year. Mr. Elofson resides in the City of Newport News.

Maurice P. Lynch, Ph.D., Vice-Chair. Dr. Lynch, a member of the Commission since August 24, 2009, is professor emeritus of the College of William and Mary's Virginia Institute of Marine Science. Upon earning his bachelor's degree from Harvard College, Dr. Lynch attended Navy Officer Candidate School, was commissioned an ensign in the U.S. Navy Reserve and remained on active duty with the Underwater Demolition Team until July 1962. After filling numerous reserve billets, he retired in 1988 with the rank of Captain USNR. Dr. Lynch earned his master's and doctoral degrees from the College of William and Mary, where he has been a member of the faculty since 1972. He has been a liaison to numerous universities as well as state and federal agencies. He has served as the Virginia Sea Grant director, director of the Chesapeake Bay Research Consortium and director of the Chesapeake Bay National Estuarine Research Reserve in Virginia. He has been an officer of several professional organizations, including the Virginia Academy of Science, the Coastal Society and the National Estuarine Research Reserve Association. Dr. Lynch also has served two terms on the Chesapeake Bay Foundation ("CBF") board of trustees and been a leader of CBF's York chapter. He served on the Middle Peninsula Planning District Commission from 1997 to 2015 and has served as its chair. Dr. Lynch resides in Williamsburg.

Michael E. Glenn, Commissioner. Mr. Glenn, a member of the Commission since May 13, 2008, is president of Luna Development Services, LLC. The firm, which offers full-service general contracting and real estate development services, is a Certified Virginia Minority Business Enterprise. Before founding his firm in 2004, Mr. Glenn was Director of Operations, Real Estate Services and Contracts for Troutman Sanders, LLP. He also has served as a development executive for Armada Hoffer Development and as a Wachovia Bank vice president. Mr. Glenn received a bachelor's degree in psychology, with a minor in biology, from Old Dominion University. Mr. Glenn resides in the City of Norfolk.

Vishnu K. Lakdawala, Ph.D., Commissioner. Dr. Lakdawala, a member of the Commission since June 8, 2002, obtained his undergraduate degree in electrical engineering from Bangalore University in India in 1972 and his Master of Engineering in High Voltage Engineering from Indian Institute of Science in 1974. He worked as Research and Development Engineer in Jyoti Limited for three years in the high voltage instrument transformers division. He received his Ph.D. in electrical engineering from the University of Liverpool in 1980. After serving as senior research associate in the Department of Electrical Engineering and Electronics in the University of Liverpool for a year, he joined Oak Ridge National Laboratory, Oak Ridge, Tennessee, where he conducted research for a year. He joined the faculty of Old Dominion University in 1983 as Assistant Professor in the Department of Electrical and Computer Engineering. He is currently the Chief Departmental Advisor and Associate Professor of Electrical and Computer Engineering. Dr. Lakdawala has served as the president and chairman of the Board of Trustees of the Hindu Temple of Hampton Roads. Dr. Lakdawala resides in the City of Virginia Beach.

Willie Levenston, Jr., Commissioner. Mr. Levenston, a member of the Commission since September 9, 2014, earned his Bachelor of Science in Engineering from Southern University in Baton Rouge, Louisiana. He retired from the Norfolk Naval Shipyard in 2008 after more than 40 years of service. In his capacity as Supervisor Electronics Engineer, Mr. Levenston was responsible for Surface Ship Exterior Radio Communications, Secure/Communication Information Processing, Naval Tactical Data Systems, Search Radar, Electronics Countermeasure/Navigational Aids, and the Submarine Communication sections. Mr. Levenston resides in the City of Portsmouth.

Stephen C. Rodriguez, Commissioner. Mr. Rodriguez, a member of the Commission since October 5, 2012, is the owner and president of Cruco Inc., which provides construction services in Hampton Roads. He currently serves as chair of the board of directors of the Outer Banks Hospital. Mr. Rodriguez was named chair of the Foundation for Virginia Natural Resources and has served as president of the Deep Creek Ruritan Club. He has also been a member of the Chesapeake School Board, the Chesapeake Hospital Authority, the Chesapeake Economic Development Authority and the board of directors of Opportunity, Inc. He holds a bachelor's degree in civil engineering technology and a certificate in civic leadership from Old Dominion University. Mr. Rodriguez resides in the City of Chesapeake.

Elizabeth A. Taraski, Ph.D., Commissioner. Dr. Taraski, a member of the Commission since June 8, 2017, is the president and CEO of the Nansemond River Preservation Alliance in Suffolk, Virginia. Dr. Taraski previously served in senior fundraising management positions at Christopher Newport University, Old Dominion University and the University of Richmond. Before moving to Virginia in 1998, Dr. Taraski was Director, Administration and Industrial Relations, Multi-lifecycle Engineering Research Center, New Jersey Institute of Technology. Dr. Taraski is a member of the Suffolk Branch AAUW, the Suffolk Business Women's Club and she is also a board member of the Suffolk Rotary Club. She holds a Ph.D. from Seton Hall University; a Master of Science degree from New York University and a Master of Education degree from Rutgers University and completed her doctoral internship at the Alfred P. Sloan Foundation, NYC. Dr. Taraski resides in the City of Suffolk.

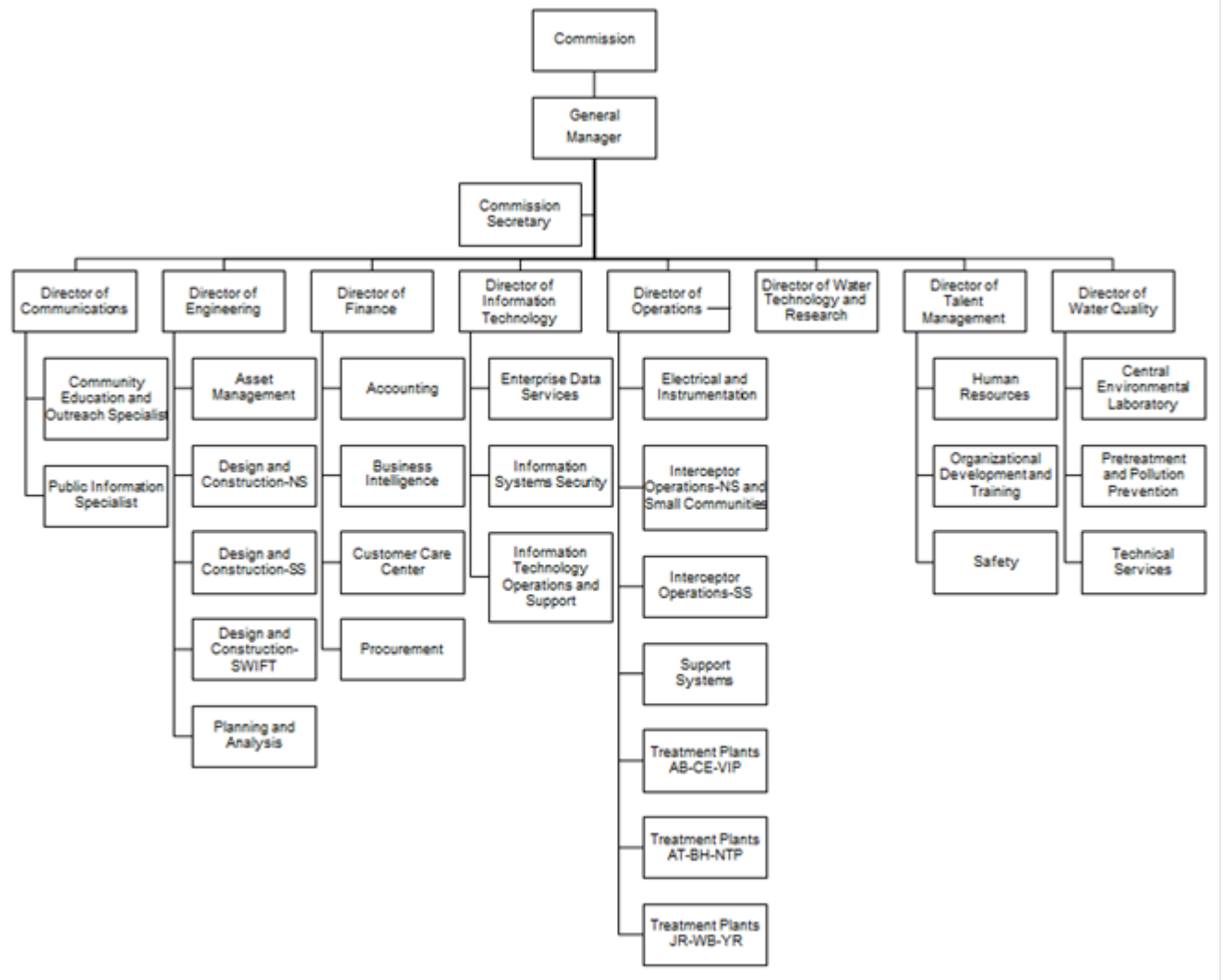
Molly Joseph Ward, Commissioner. Ms. Ward, a member of the Commission since May 24, 2019, is the Treasurer for the City of Hampton, a position she previously served in from 2002 to 2008. She also served as a member of Governor Terry McAuliffe's cabinet as the Secretary of Natural Resource, in the Obama Administration as a Special Assistant to the President and Deputy Director of Intergovernmental Affairs at the White House, and as the Mayor of the City of Hampton. Ms. Ward has served on numerous boards and commissions, including the Virginia Outdoors Foundation, the Chesapeake Bay Program Principal's Staff Committee, and the Chesapeake Bay Commission. Ms. Ward was also recently appointed to the boards of the Chesapeake Conservancy, the Virginia Living Museum and the Virginia Science Museum. Ms. Ward is a graduate of the University of Virginia and William and Mary Law School, and remains an active member of the Virginia State Bar. Ms. Ward resides in the City of Hampton.

Management and Staff

The District is managed through seven departments, which are organized into functional divisions with their principal responsibilities summarized after the District's organizational chart set out below.

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HRSD Organizational Chart



Communication

- Community Relations: Develops and provides community outreach and engagement around HRSD construction, infrastructure development and new initiatives.
- Community Education: Develops and provides educational materials, presentations, facility tours and outreach related to HRSD's services, mission and vision.

Engineering

- Design & Construction: Manages projects to ensure that contracted work is performed according to HRSD's quality standards, fiscal policies and environmental commitment and acquires land and easements necessary to construct needed infrastructure.
- Planning & Analysis: Evaluates the service area's needs and determines the new facilities necessary to expand services. Projects future demand flows, and reviews service area expansions. Responsible for the Geographical Information System (GIS), Regional Hydraulic Model, Capital Planning, and Data Analysis.
- Asset Management: Provides systematic and risk-based analysis to manage sustainable lifecycle costs of capital assets and optimize maintenance programs. Responsible for the Computerized Maintenance Management System (CMMS).

Finance

- Accounting: Performs accounting and budget operations and treasury, debt and risk management functions.
- Procurement: Acquires goods and services.
- Customer Care Center: Responsible for billings, collections, maintenance of customer accounts and liaison with HRSD customers.

Information Technology

- Enterprise Data Services: Provides programming, configuration and support for enterprise software applications and associated databases.
- Cybersecurity: Provides an enterprise-wide information security management program to insure that organizational assets are adequately protected.
- Information Technology Operations: Provides management and support services for HRSD's networked infrastructure and mobility solutions.

Operations

- Electrical and Energy Management: Provides and/or coordinates engineering, electrical and instrumentation services to design, modify and implement electrical, instrumentation and energy management projects.

- **Interceptor Operations North Shore:** Operates and maintains the interceptor systems in the Cities of Hampton, Newport News, Poquoson and Williamsburg, the Counties of Gloucester, James City and York.
- **Interceptor Operations South Shore:** Operates and maintains the interceptor system in the Cities of Chesapeake, Norfolk, Portsmouth, Suffolk and Virginia Beach and the County of Isle of Wight.
- **Small Communities:** Operates and maintains the collections systems and treatment plants that serve the Counties of King William, King and Queen, Middlesex, Mathews and Surry.
- **Support Systems:** Coordinates preventive and major corrective maintenance programs and manages the automotive, carpentry, and machine shop operations.
- **Treatment Plants:** Operates and maintains the Army Base, Atlantic, Chesapeake-Elizabeth, VIP, Boat Harbor, James River, Nansemond, Williamsburg and York River treatment plants.

Talent Management

- **Human Resources (HR):** Responsible for recruiting, onboarding, HR policies, employee records and benefits.
- **Organizational Development and Training:** Provides and oversees employee training and organizational planning and manages the apprenticeship program.
- **Safety:** Monitors risk, develops and coordinates safety programs and provides safety training.

Water Quality

- **Central Environmental Laboratory:** Performs laboratory accredited analysis for various HRSD programs and coordinates testing by contract laboratories as necessary.
- **Pretreatment & Pollution Prevention:** Controls all non-domestic waste discharged into the HRSD system.
- **Technical Services:** Provides scientific/technical support of all HRSD departments and administration of all HRSD permits.

The District's administration is overseen by a General Manager, supported by eight directors and their staffs. For Fiscal Year 2020, the District has budgeted for 847 full-time employees. Current staffing is sufficient to operate all existing facilities. None of its employees is currently represented by a union.

The following individuals are responsible for the daily management and affairs of the District:

Edward G. Henifin, P.E., General Manager

Ted Henifin joined HRSD in 2006, as General Manager. HRSD has a long history of innovation in the wastewater sector and under his leadership HRSD has broadened its focus to add sustainable water management to HRSD's innovation portfolio with the SWIFT initiative. He previously served as Director of Public Works for the City of Hampton. Mr. Henifin holds a Bachelor of Science in Civil Engineering from the University of Virginia. His career has spanned more than 35 years with a focus on public works and utilities in federal, regional and local government in Hampton Roads. He is a registered professional engineer and has been active with professional associations throughout his career. He currently serves on the board of directors for the National Association of Clean Water Agencies ("NACWA"), the Virginia Association of Municipal Wastewater Agencies ("VAMWA") and Virginia Forever, is the vice chair of the US Water Alliance's One Water Council, and serves on the US EPA's Environmental Financial Advisory Board. Mr. Henifin is active in various civic and community organizations in the Hampton Roads community, currently serving as the vice chair of the board of directors for Langley Federal Credit Union and as a member of the board of directors for WHRO Public Media.

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

Jay Bernas was promoted to Director of Finance in October 2015. Before his promotion to this position, Mr. Bernas served as Chief of Planning and Analysis for 10 years and was responsible for planning HRSD's Capital Improvement Program, performing business case analyses, system capacity analyses to support regional growth and managing four technical sections: Geographic Information Systems, Data Analysis, Hydraulic Modeling and Capital Planning. Prior to joining HRSD, he was a project manager with the City of Virginia Beach. Mr. Bernas graduated from Old Dominion University in 1995 with a bachelor's degree in Civil Engineering and earned his MBA from the College of William and Mary in 2013. He also has completed the Kenan-Flagler Water and Wastewater Leadership Program and was part of the 2008 class for LEAD Hampton Roads. He received the George Robert House, Jr. Award for the young public administrator of the year from the American Society for the Public Administration in 2006 and was recognized by Inside Business as a "Top Forty under 40" in 2011. Appointed by the Virginia Beach City Council to serve on the Planning Commission from 2006-2013, Mr. Bernas was its chair for the last two years of his tenure. He was elected to the Board of Trustees for the \$1.4 billion Virginia Investment Pool in 2018.

Charles B. Bott, Ph.D., P.E., Director of Water Technology and Research

Dr. Charles B. Bott joined HRSD in 2009 and is the Director of Water Technology and Research. He manages technology innovation and research and development for HRSD's wastewater treatment plants and interceptor system. Dr. Bott is also an Adjunct Professor in the Departments of Civil and Environmental Engineering at Virginia Polytechnic Institute and State University ("Virginia Tech") and Old Dominion University. He was formerly an Associate Professor in the Department of Civil and Environmental Engineering at the Virginia Military Institute and a consulting engineer with Parsons Engineering Science. Dr. Bott has a bachelor's degree in Civil Engineering from the Virginia Military Institute, a master's degree in Environmental Engineering from the Johns Hopkins University, and a Ph.D. in Civil and Environmental Engineering from Virginia Tech. He is a fellow of the Water Environment Federation ("WEF") and a member of the Science and Technology Advisory Committee to the Chesapeake Bay Program Executive Council. Dr. Bott is a professional engineer in Virginia, a board certified Environmental Engineer, and a licensed Wastewater Treatment Plant Operator – Virginia Class I. He is a two-time winner of the WEF Harrison Prescott Eddy Medal for outstanding contribution to wastewater principles/processes research, he was a previous member of the WEF Board of Trustees, and he is the current co-chair of the WEF and Water Research Foundation Leaders Innovation Forum for Technology ("LIFT") program.

Donald C. Corrado, Director of Information Technology

Prior to his appointment in 2008, Don Corrado served as HRSD's Chief of Information Technology for nine years. In that capacity, he was responsible for the implementation of a scalable, fully-licensed, standards-based wide area network capable of supporting the various enterprise-class applications required to meet HRSD's business needs. Mr. Corrado's career includes public and private sector experience as an IT manager, enterprise solutions architect, information systems security officer, project leader and contract specialist. He earned a bachelor's degree from Old Dominion University and is a Master Certified NetWare Engineer, Microsoft Certified Systems Engineer and is ITIL Certified. He is a member of the Gartner Executive Panel, American Water Works Association ("AWWA") and WEF and has completed the Kenan-Flagler Water and Wastewater Leadership Program.

Steven G. de Mik, MBA, CPA, Director of Operations

Steve de Mik, who was named Director of Operations in 2015, joined HRSD in 2008. As Director of Operations, he leads a staff of over 500 who are responsible for the operation of HRSD's treatment plants and interceptor systems as well as various support services such as fleet management, carpentry and a machine shop. In his previous position as Director of Finance and Chief Financial Officer, Mr. de Mik was responsible for HRSD's general financial and business functions, including financial reporting, investment portfolio, debt and risk management, and customer billing. A certified public accountant, he holds an MBA from the College of William and Mary and has completed the Kenan-Flagler Water and Wastewater Leadership Program and the Virginia Natural Resources Leadership Program. Before joining HRSD, Mr. de Mik served for seven years as the Director of Finance and Business Services for the City of Norfolk. His duties in that post included managing the financial operations of the city including a pension system and a debt portfolio of approximately \$1 billion using three different credit structures. In addition, he was responsible for the city's parking, facilities maintenance and fleet operations. Mr. de Mik's years of public and private sector experience also include positions with Knox County, Tennessee; Knoxville, Tennessee; Chipman and McMurray, CPA of Hendersonville, Tennessee; and the Comptroller of the Treasury, Division of State Audit, Nashville, Tennessee. He received a bachelor's degree in accounting and business administration from Southwest Baptist University in Bolivar, Missouri. Mr. de Mik also serves as the treasurer for Heart for Orphans, a nonprofit organization based in the City of Williamsburg, Virginia.

Paula A. Hogg, Director of Talent Management

Paula Hogg became Director of Talent Management when the position was established in 2014. A graduate of Virginia Tech and the Kenan-Flagler Water and Wastewater Leadership Program, Ms. Hogg began her HRSD career in 1983. Her progressively responsible positions led to her selection as the Chief of Laboratory in 2005. In that capacity, she oversaw the effective operation of HRSD's state-of-the-art Central Environmental Laboratory and ensured proper internal analysis and regulatory control. Ms. Hogg played a key role in the effort to bring HRSD's laboratory into full compliance with Virginia's Laboratory Accreditation regulation. She has also served on the Advocacy Committee for the National Environmental Laboratory Accreditation Conference Institute. She also has led various inter-departmental teams, was instrumental in the development of HRSD's quality program and served as one of the first facilitators. Ms. Hogg is an active member of the WEF and the Virginia Water Environment Association, where she served as chair of the National Laboratory Practices Committee, as a member of the committee Leadership Council and currently supports Utility Management Committee activities related to Human Resources and Organizational Development. Ms. Hogg is a member of the International Public Management Association and the Society of Human Resources Management.

Bruce W. Husselbee, P.E., DBIA, Director of Engineering

Bruce Husselbee became Director of Engineering in July 2005. Before his promotion to this senior leadership position, he was a Project Manager in the HRSD Design and Construction Division for nine years. Mr. Husselbee previously worked in the consulting engineering field for 12 years prior to joining HRSD. He holds a bachelor's degree in Civil Engineering and a master's degree in Environmental Engineering from George Washington University. He also has completed the Kenan-Flagler Water and Wastewater Leadership Program. He is currently pursuing a doctorate in coastal engineering at Old Dominion University. He is active in a number of professional organizations including the Old Dominion University Civil and Environmental Engineering Visiting Council, the Design-Build Institute of America and the WEF Utility Management Committee.

James J. Pletl, Ph.D., Director of Water Quality

Jim Pletl was promoted to Director of Water Quality in December 2011. Previously, he was the Chief of Technical Services for five years. In that capacity, he managed HRSD's environmental monitoring and permitting program. He also served as an Environmental Scientist for 17 years, providing technical reviews and conducting planning for water quality studies. Dr. Pletl holds a bachelor's degree in Biology from Alfred University and a Ph.D. in Biological Oceanography from Old Dominion University. He also is a graduate of the Kenan-Flagler Water and Wastewater Leadership Program. Dr. Pletl is the chair of the NACWA Water Quality Committee and a member of the Water Research Foundation's (WRF) Research Advisory Committee. He has served on several federal advisory committees and several advisory groups to the Virginia Department of Environmental Quality. Dr. Pletl has also served on numerous WRF (previously Water Environment and Reuse Foundation) project oversight committees which define the goals and guide the work of WRF research relevant to wastewater utility issues. Dr. Pletl also serves on the Virginia Nutrient Credit Exchange Association Board of Governors.

Leila E. Rice, APR, Director of Communications

Leila Rice, who joined HRSD in March 2017, directs and guides overall strategic communication initiatives, internal and external communications, media relations, crisis communications, branding, social media, and community relations and community education programs. She previously served as Public Affairs Manager for Elizabeth River Crossings, where she managed internal and external communications, media relations and community outreach for the Elizabeth River Tunnels Project. Her experience also includes serving as Community and Media Relations Manager for Norfolk-based non-profit agency, ForKids, Inc., and more than 20 years of radio and television media experience. Ms. Rice holds a bachelor's degree in Communication Arts from James Madison University and received her Accreditation in Public Relations in 2017. She is a member of the Public Relations Society of America and the Water Environment Foundation (WEF). She serves on the NACWA Communications and Public Affairs Committee and the Hampton Roads Chamber of Commerce Regional Communication Committee. Ms. Rice also volunteers as an ESL teacher and serves on the Foodbank of Southeast Virginia Advisory Task Force.

Awards

HRSD has received numerous awards for excellence in plant operations and maintenance, environmental engineering and design, and financial reporting. To date, its treatment plants have earned 345 awards for outstanding compliance with National Pollutant Discharge Elimination System ("NPDES") permits since 1986, when the recognition program was established.

Awards and honors received in 2018 include NACWA National Achievement Awards for Workforce Development (for the HRSD Apprenticeship Program) and for Operations and Environmental Performance (for Pump Station Architectural Guidelines); American Council of Engineering Companies (ACEC) 2018 Engineering Excellence Award National Recognition for the HRSD Norchester Pump Station and the Engineering News Record Mid-Atlantic Region best project in the Water/Environment category for the SWIFT Research Center. Honors and Awards received in 2019 to date include NACWA National Achievement Awards in the following categories: Public Information and Education: E-Media; Operations and Environmental Performance for the SWIFT Research Center; Workforce Development for HRSD's Partnership with Hampton Roads Public Works Academy and Research and Technology for Williamsburg Aeration Tank Modifications. HRSD has also received the ACEC National Grand Award for design of the Bridge Street Pump Station. The SWIFT Research Center earned the 2019 Governor's Environmental Excellence Award, Gold Medal winner in the environmental project category; the Design-Build Excellence Award for "Best Water Project" from the Design-Build Institute of America (DBIA) Southeast Region and the Merit Award in the General Contracting category from the Associated Builders and Contractors, Inc. (ABC) Carolinas Chapter.

HRSD employees and leaders honored and recognized for their work and service include General Manager Ted Henifin, receiving the 2018 Government Civil Engineer of the Year Award from the American Society of Civil Engineers; Dr. Charles Bott, awarded the Frederick George Pohland Medal; Commissioner Vishnu Lakdawala, receiving the NACWA 2019 Public Service Award, and Dr. Jim Pletl, receiving the NACWA Distinguished Service Award.

THE SERVICE AREA

The District provides service to 3,087 square miles of land area within the boundaries of its service area. The geographical limits are shown on the map behind the inside front cover and include the following localities:

City of Chesapeake	Gloucester County
City of Hampton	Isle of Wight County
City of Newport News	James City County
City of Norfolk	King and Queen County
City of Poquoson	King William County
City of Portsmouth	Mathews County
City of Suffolk	Middlesex County
City of Virginia Beach	Surry County (excluding Town of Claremont)
City of Williamsburg	York County

The District and the Commission are independent of the localities served by the District. See "HAMPTON ROADS SANITATION DISTRICT—Authorization and Purpose" and "—The Commission."

The District's Enabling Act includes provisions for adding territory to the District. From time to time, adjacent Counties have requested to have their jurisdictional area added to the territory within the District. Recently, the Counties of Northampton and Accomack on Virginia's Eastern Shore have expressed interest in being included within the District. Discussions with such Counties are in an early stage, and no assurance can be given as to the outcome of such discussions.

Population Growth

The area within the District has experienced substantial urban and suburban development and consequent population growth. The historical population within the District is presented below. Presently, the District contains approximately 21% of the population of the Commonwealth of Virginia.

Historical Population Growth in the District

<u>Year</u>	<u>Population</u> ⁽¹⁾	<u>Population Increase (%)</u> ⁽²⁾
1960	660,338	--
1970	973,247	47
1980	1,085,332	12
1990	1,431,000	32
2000	1,551,000	8
2010	1,674,917	8

(1) Source – United States Bureau of the Census.

(2) Increase in population includes both increases in population within the District's original service area, as well as the expansion of the District's service area.

The District's top ten ratepayers represented 9.5% of the District's total rate base, as measured by wastewater treatment charges, in Fiscal Year 2018. The following table compares the top ten ratepayers in Fiscal Year 2018 with the top ten ratepayers in Fiscal Year 2009.

Wastewater Treatment Charges Ten Largest Customers

<u>Customer</u>	<u>Type</u>	<u>Fiscal Year 2018</u>		<u>Fiscal Year 2009</u>	
		<u>Amount</u> ⁽¹⁾	<u>% of Total</u>	<u>Amount</u> ⁽¹⁾	<u>% of Total</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 ⁽²⁾	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 ⁽³⁾	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
Totals⁽⁴⁾		<u>\$26,270</u>	<u>9.5%</u>	<u>\$16,645</u>	<u>10.6%</u>

(1) Dollar amounts in thousands.

(2) Formerly Northrop Grumman Newport News/Newport News Shipbuilding and Dry Dock Co.

(3) Formerly U.S. Navy – Little Creek Amphibious Base.

(4) Totals may not add due to rounding.

Wastewater Flow

During the past five years, there has been population growth in the service area, while the number of service connections has remained relatively stable. Billed water consumption has declined modestly during such period because of conservation efforts on the part of utility customers fostered by increasing water rates, improved construction materials and the installation of low flow plumbing fixtures.

Wastewater Flows and Service Connections

<u>Fiscal Year Ended June 30,</u>	<u>Average Daily Wastewater Flow⁽¹⁾</u>	<u>Total Billed Wastewater Flow^(1,2)</u>	<u>Service Connections⁽³⁾</u>
2014	154	113	462
2015	152	112	465
2016	155	111	467
2017	153	111	470
2018	145	110	473

(1) Millions of Gallons per Day.

(2) Water meters are read for billing purposes by the participating jurisdictions.

(3) Number of service connections in thousands.

Expansion of Service Area

In most instances, the routine expansion of the service area results from the extension of the interceptor system performed at the request of a local government. The general policy is that HRSD will extend an interceptor sewer when the local government extends a public water system. The interceptor sewer is intended to serve an area within two miles of the interceptor pipeline.

THE SYSTEM

The Wastewater System consists of nine major treatment plants (248.5 million gallons per day (MGD) capacity), seven smaller plants and its interceptor system consisting of 130 pump and pressure reducing stations and approximately 651 miles of interceptors and collection sewer ranging in diameter from 6 to 66 inches. The interceptors, which are gravity and force mains, convey wastewater from the point of delivery by municipalities, industry and other users of the Wastewater System to the District's treatment plants.

The following table identifies the location of the District's major treatment plants, their design capacities and, for the Fiscal Year ended June 30, 2019, their average daily flows.

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**Hampton Roads Sanitation District
Treatment System Capacity & Flows
(Millions of Gallons per Day)**

<u>Major Treatment Facilities</u>	<u>Average Design Capacity</u>	<u>FY 2019 Annual Average Daily Flow</u>
Army Base [Norfolk]	18.0	11.1
Atlantic [Virginia Beach]	54.0	28.1
Boat Harbor [Newport News]	25.0	15.7
Chesapeake-Elizabeth [Virginia Beach]	24.0	16.9
James River [Newport News]	20.0	13.8
Nansemond [Suffolk]	30.0	16.8
Virginia Initiative [Norfolk]	40.0	27.7
Williamsburg [James City County]	22.5	8.6
York River [York County]	<u>15.0</u>	<u>13.2</u>
TOTALS	<u>248.5</u>	<u>151.9</u>

In addition to the major facilities described above, the District operates seven additional small wastewater treatment plants: two in Middlesex County with a combined capacity of 0.125 MGD, one in West Point (King William County) with a capacity of 0.60 MGD, one in King William (King William County) with a capacity of 0.10 MGD, two in Surry County with a combined capacity of 0.125 MGD and one in Isle of Wight County with a capacity of 0.05 MGD. The interceptor system for these localities includes 41 pumping stations. In the Counties of King William, King and Queen, Middlesex, Mathews and Surry, HRSD is responsible for the collection, conveyance and treatment of wastewater.

System Improvements and Innovations

HRSD completed significant renewals and improvements to its treatment plants, pump stations, interceptor sewers, operational and administrative facilities in recent years. Electrical equipment upgrades throughout all HRSD facilities were made to replace aging system components as well as meet new arc flash safety requirements. The on-going infrastructure renewal program has replaced a number of major interceptor pipelines and pump stations in the southern portion of the District's service area. Improvements included the Holland Road 24-inch interceptor force main in Suffolk, the Shipp's Corner Pressure Reducing Station in Virginia Beach, and Rodman Avenue Pump Station wet well rehabilitation in Portsmouth, as well as air vent rehabilitation projects throughout the district. In the Peninsula portion of the service area, major interceptor pipelines and pump station improvements include: the completion of the North Trunk force main Part B in Williamsburg, the Williamsburg Interceptor Force Main Contract

‘A’ in James City County, the Hampton Trunk Sewer Division ‘B’ in Hampton, the Westminster Drive Force Main replacement in Hampton, and the Semple Farm Emergency Repairs in Hampton, the 58th Street Connecting Sewer Rehabilitation in Newport News, the Ferguson Park Interceptor Force Main Bridge Span Relocation in Newport News, and the Hampton Trunk Sewer Division ‘E’ Kecoughtan in Hampton. Also, completion and commissioning of the new Bridge Street Pump Station occurred.

HRSD owns 122 pump stations and pressure reducing stations that use various control scenarios using programmable controls to maintain various set points throughout the interceptor system. To provide a more reliable and robust control and monitoring system new control panels will be placed at every station and system control points. The Supervisory Control and Data Acquisition (SCADA) system, currently under development, will allow for future capacity optimization control regimes, including Real Time Control and predictive measures to get the most out of the interceptor system.

A comprehensive metering network installed throughout the Wastewater System aids in optimizing system operations and provides flow data to HRSD’s dynamic hydraulic model for calibration and validation purposes. The hydraulic model is one of the most sophisticated sewer modeling efforts in the country and is used to guide placement and sizing of future system improvements to cost effectively address wet weather peak flows. In addition, HRSD uses the hydraulic model to evaluate new connections to the system to ensure capacity, size new pipelines and pump stations, develop contingency scenarios and improve system operational efficiency. The hydraulic model was instrumental in HRSD’s decision to take the Chesapeake-Elizabeth Treatment Plant offline and divert the flow to use available capacity at the Atlantic Treatment Plant. To divert the flow and provide reliable service in the future, approximately \$100 million will be spent before December 2021 on various interceptor projects including replacing 7,500 linear feet of force main originally installed in 1965 with larger diameter pipe, wet weather storage, construction of the new Elbow Road Pressure Reducing Station and reliability upgrades at six additional pressure reducing stations. HRSD estimates that the 30-year net present value of savings realized from this decision will be between \$133 million to \$205 million.

HRSD directed significant effort to meet mass discharge limits on nitrogen and phosphorus as a result of the six-state efforts to restore the Chesapeake Bay. As a result of the capital projects at the York River, Nansemond, Army Base James River and the Virginia Initiative Plant (VIP) Treatment Plants, HRSD continues to meet its stringent nutrient limits. Through the use of creative design and phased construction, HRSD deploys cost-effective adaptive technologies to take advantage of the existing facilities and the diversity of treatment processes at each plant. In June 2019 the Virginia State Water Control Board adopted new protective criteria for Chlorophyll in the James River. The new criteria were the result of a seven-year study designed to identify the causes and consequences of algal blooms and develop models to estimate their occurrence by linking Chlorophyll to nutrients and other environmental factors. HRSD’s wasteload allocations defined by the current nutrient general permit are in compliance with the new criteria. Virginia anticipates EPA approval of the criteria as adopted.

The District continues to evaluate potential renewable energy projects, such as the Atlantic Treatment Plant Digester Gas Combined Heat and Power (CHP) project completed in 2013. This project feeds internal combustion engines with treated digester gas to meet up to 40% of the 2.5 megawatt demand of the treatment plant and provide heating to the administration buildings and digesters. The digester gas treatment system uses a biological hydrogen sulfide gas scrubber, which was the first municipal installation in North America. A project is currently under way at Atlantic that will increase biogas generation by receiving and processing restaurant-derived fats, oils, and grease containing water and converting it to additional digester gas. In 2008, HRSD worked with the Navy to use the Atlantic Treatment Plant’s effluent to act as a heat sink for a large Navy facility located adjacent to the plant. This system, similar in function to a geothermal system, saves the Navy \$3 million per year and won a Federal Facility Presidential Award in 2009. The District has installed its first photovoltaic array at the

SWIFTRC, a 60 kW system that supplies approximately one-quarter of the SWIFTRC's operating power demand. Finally, the District is continuing to actively pursue implementation of additional energy recovery projects (including compressed natural gas and brown-grease derived biofuel) that will further reduce its operations carbon footprint and potentially generate revenue associated with the sale of commodity energy products and associated environmental attributes.

HRSD owns and operates the second Ostara nutrient recovery facility in the United States. The patented Ostara process recovers phosphorus and nitrogen from the wastewater treatment process, rather than releasing it into the Chesapeake Bay, and converts it to a slow-release, high-phosphorus content, commercial fertilizer. The Ostara nutrient recovery facility will undergo modifications beginning in 2020 that will increase fertilizer production by approximately 1,000 pounds per day, resulting in a corresponding reduction in unrecovered phosphorus in treated effluent and biosolids.

At the Atlantic Treatment Plant, HRSD is nearing completion of the construction of a new thermal hydrolysis process for biosolids handling. The process hydrolyzes and disintegrates sludge using pressure and temperature. As a result, biosolids should be designated as Class "A," which means they are pathogen free and have far fewer land application restrictions; additional biogas is produced for the Combined Heat and Power system, and the process allows significant additional capacity to be gained from the existing anaerobic digesters. In addition to the Class "A" designation the thermal hydrolysis process will significantly reduce the volume of biosolids produced at the plant. HRSD is currently performing a market assessment of commercial products derived from Class "A" biosolids within Coastal Virginia and North Carolina in order to provide secure channels for safe, environmentally beneficial, and cost-effective biosolids end use.

The District is a leading agency in wastewater research and development. In collaboration with an international group of researchers and other third parties, the District played a major role in patenting a process using mainstream external selectors to improve biomass settleability and stabilize biological phosphorus removal. This technology was installed at the James River Treatment Plant in 2015 and in one train at the Urbanna Treatment Plant in 2016. In addition, the District is collaborating with an international group of agencies and academic institutions to study a revolutionary wastewater process using a relatively new bacterium called anammox. The District started operating the first two full-scale sidestream treatment processes using anammox in the Western Hemisphere at York River Treatment Plant and James River Treatment Plant. HRSD developed and patented (pending) a new control system for one of those processes known as the AnitaMox process. HRSD is also currently operating the first documented full-scale mainstream nutrient removal process using anammox reducing the methanol consumption at the York River Treatment Plant. The implementation of this process was completed internally by HRSD staff for minimal capital investment. HRSD, in collaboration with others, patented a suite of technologies associated with the treatment of nitrogen using low energy, low carbon, and intensified (smaller tanks) processes and based on mainstream nitrite shunt and deammonification (anammox). This technology suite is known as "AVN" and has been commercialized through a competitive process with World Water Works, Inc. HRSD installed this control system at the Boat Harbor Treatment Plant with significant improvements in nitrogen removal performance at very low cost.

The District is also investigating other innovative projects to reduce energy usage and limit the discharge of contaminants to the environment. The District is using ammonia-based aeration control at two plants to improve nutrient removal while reducing energy, alkalinity, hypochlorite and supplemental carbon demand. Only a few plants in the United States use this control strategy.

The District has developed an innovative program called the Sustainable Water Initiative for Tomorrow ("SWIFT") to address the challenges of declining aquifer levels, land subsidence and saltwater intrusion and provide additional benefits to the region, including nutrient credits for urban stormwater and

other needs. SWIFT will add advanced water treatment (“AWT”) to up to seven of District’s existing treatment plants to produce more than 100 MGD of water that meets drinking water standards and is compatible with the receiving aquifer. Water meeting drinking water standards (“SWIFT Water”) will be injected into the Potomac Aquifer System as part of a groundwater replenishment program to counter the aquifer challenges described above.

In support of the SWIFT program the District constructed and is operating a 1 MGD demonstration facility, known as the SWIFT Research Center (“SWIFTRC”), that demonstrates, on a meaningful scale, that AWT produces SWIFT Water that meets primary drinking water standards and is compatible with the receiving aquifer.

Capital Improvement Program

The District’s Capital Improvement Program is designed to meet regulatory requirements, including both nutrient reduction and sanitary sewer overflow reduction, aging infrastructure renewals and replacements, biosolids management and increased capacity. The District uses a ten-year planning horizon for the CIP. The CIP is updated each year and modified as circumstances dictate. The Commission approves the overall program and the first year of the plan and appropriates funds on an individual project basis. The District also uses a CIP project prioritization program using a decision-analysis based process. This process allows each proposed project to be considered objectively against the merits of other proposed projects to ensure the right project is completed at the right time. Individual projects are scored using performance measures based on ten criteria and ranked. After the CIP review team considers each project score for consistency, the CIP leadership team makes final decisions on project acceptability and develops a prioritized project schedule based on projected capital funding availability.

The 2020-2029 CIP includes approximately \$2.79 billion in interceptor system, treatment plant, water reuse, and other facility improvements. Of that total, \$424 million is identified for the rehabilitation and upgrade of wastewater treatment plants. A number of interceptor sewer projects, totaling approximately \$307 million are in the planning, design or construction phase. These planned projects are proposed to address aging infrastructure issues within the extensive District interceptor sewer piping system. Upgrades to aging sewer pump stations and new pump stations to serve Hampton Roads are an important part of the CIP with over \$143 million of such improvements planned in the next ten years. The CIP includes \$45 million in anticipated biosolids management improvements.

The District has proposed an Integrated Plan that will use innovative approaches to removing nutrients from the Chesapeake Bay and assist with other regional issues such as aquifer recharge and land subsidence. The SWIFT program will further treat plant effluent to drinking water standards and use it to recharge the Potomac aquifer. The 2020-2029 CIP includes \$1.7 billion for the SWIFT program. The Integrated Plan also addresses sanitary sewer overflows (SSO) and has allocated \$200 million for projects that will have the largest impact towards reducing SSO’s during wet weather events.

The District remains committed to the protection of its data and cyber infrastructure. In 2018, the District engaged a third-party contractor to help develop an IT governance plan and technology roadmap. As a result, the District is planning to spend \$15.5 million over the next five years to develop a framework for secure computing and data management. In addition, the District created a new Cybersecurity Division to monitor the global cybersecurity landscape for emerging threats, conduct vulnerability assessments, provide incident response, and deliver end-user security awareness training, while developing, maintaining, and supporting appropriate policies and guidelines.

The following table sets forth the District's anticipated sources of funds for its Capital Improvement Plan in Fiscal Years 2020 through 2024.

CIP, Fiscal Years 2020 to 2024
(Dollar amounts in thousands)
(As of Fiscal Years ended June 30)⁽¹⁾

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	Total (2020-24)
Beginning Capital Reserves ⁽²⁾	\$76,631	\$648	-	-	-	\$77,279
Debt Funded ⁽³⁾	30,246	68,660	\$88,954	\$143,301	\$143,926	475,087
Cash	108,341	118,451	137,046	156,699	156,074	676,611
Grants and Other Reimbursements	430	5,241	4,000	-	-	9,671
Total Sources	<u>\$215,648</u>	<u>\$193,000</u>	<u>\$230,000</u>	<u>\$300,000</u>	<u>\$300,000</u>	<u>\$1,238,648</u>
Capital Expenditures	\$215,000	\$193,000	\$230,000	\$300,000	\$300,000	\$1,238,000
Ending Capital Reserves	\$648	-	-	-	-	

(1) Totals may not add due to rounding.

(2) Represents initial balance and unexpended Bond proceeds.

(3) Includes approved Clean Water Revolving Loan Funds.

The District plans to fund the Capital Improvement Program through a combination of cash and debt financing as shown in the above table. The CIP also includes \$1.55 billion in funding in Fiscal Years 2025 through 2029, of which \$804 million is planned to be funded with debt proceeds and \$746 million with operating cash.

In addition to its ten-year planning horizon, the District undertakes preliminary planning for its CIP through 2039. While subject to change, the District estimates additional capital expenditures of \$2.73 billion for years 2030-2039, with approximately 31% to be financed with new debt. Capital expenditures include estimated costs associated with the RWWMP discussed under “—State Consent Agreement and EPA Consent Decree” below.

The proposed new debt conservatively assumes a combination of interim financing and a new revenue bond issued in alternating years with a rate of 5%. HRSD continues to seek the lowest cost of capital and recently applied to two low-interest loan programs. HRSD submitted a \$1.7 billion Letter of Interest for EPA's 2019 round of Water Infrastructure Finance and Innovation Act (WIFIA) loans. The projects that are invited to apply will be announced in the fall of 2019. In addition, HRSD applied for approximately \$177 million in Virginia Clean Water Revolving Loan Funds (VCWRLF) in July 2019. The VCWRLF decision is expected in the fall of 2019.

Regulation and Permits

The Virginia State Water Control Law (Chapter 3.1, Title 62.1, Code of Virginia, 1950, as amended) provides that the plans and specifications for wastewater facilities to be constructed be approved by the Virginia Department of Health and the Virginia Department of Environmental Quality. The District operates all of its plants and interceptor systems under permits issued by the Virginia Department of Environmental Quality.

In addition to the regulatory issues described under “—State Consent Agreement and EPA Consent Decree,” the Commonwealth is currently developing the Chesapeake Bay Total Maximum Daily

Load (TMDL) Watershed Implementation Plan, Phase 3 for submission to US EPA. This plan has the potential to require the District to reprioritize planned Capital Improvement Projects within the existing financial plan targets. Beyond the potential for the WIP Phase 3 to require re-prioritization, the District is not aware of any pending federal or commonwealth regulatory requirements proposed in the Federal Register or the Virginia Register that, in themselves, would require significant expenditures for additional capital improvements; however, the District cannot predict the scope or effect of future federal or Commonwealth regulatory actions that could require significant expenditures for capital improvements.

State Consent Agreement and EPA Consent Decree

On December 19, 2014, the Commonwealth of Virginia entered into a long-term State Consent Agreement (the “2014 Consent Agreement”) with 14 of the localities that HRSD serves. The 2014 Consent Agreement requires the localities to perform long-term management, operations and maintenance of their sewer systems in support of HRSD’s efforts to provide long-term regional wet weather wastewater capacity. HRSD is not a party to the 2014 Consent Agreement. Instead, HRSD’s obligation to provide regional wet weather sewer capacity is now solely imposed through its federal consent decree (the “Consent Decree”). HRSD entered into the Consent Decree with the Commonwealth and the United States Environmental Protection Agency (“EPA”).

The Consent Decree was entered by the federal district court for the Eastern District of Virginia (the “District Court”) on February 23, 2010. The Consent Decree has been amended four times, most recently on February 21, 2017 (the “Amended Consent Decree”).

The Amended Consent Decree has two major operative requirements. First, it requires HRSD to develop a Regional Wet Weather Management Plan (“RWWMP”) to control capacity-related sewer overflows within the 14 localities. However, through the third and fourth amendments, HRSD has now assumed responsibility for planning (in consultation with the 14 affected localities), designing, funding, and implementing the controls in both the localities’ systems and the HRSD system that will be contained in the approved RWWMP. Through this approach, HRSD estimates the regional ratepayers will achieve significantly reduced program costs than if each locality sought to address peak wet weather wastewater flows on its own. To facilitate these regional cost savings, the Amended Consent Decree extended the RWWMP submission deadline to October 1, 2017. To further facilitate this approach, the 14 affected localities entered into a Memorandum of Agreement with HRSD in 2014 in which they 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.

The Amended Consent Decree also requires HRSD to implement a total of 45 projects from its ten-year CIP. These 45 projects total approximately \$306 million. Accordingly, HRSD has timely and fully satisfied the requirement of the Amended Consent Decree to implement these 45 early action projects.

The Amended Consent Decree authorizes HRSD to submit the RWWMP as part of an Integrated Management Plan (“IMP”). HRSD intends to use the IMP approach to facilitate the timing and financing of both its RWWMP and its SWIFT Program. The SWIFT Program will assist the Commonwealth to meet its Chesapeake Bay nutrient reduction commitments and save HRSD’s 14 localities approximately \$1 to \$2 billion in avoided Chesapeake Bay-related storm water control costs.

On September 29, 2017, HRSD submitted the IMP to EPA and the Commonwealth for approval. HRSD, EPA and the Commonwealth have been discussing HRSD’s program since that time. As of Summer, 2019, HRSD and the agencies are considering an IMP that calls for investing approximately

\$200 million in additional wet weather capacity-related sewer overflow controls between now and 2030, along with approximately \$1.1 billion to implement the SWIFT program. After 2030, the IMP would commit HRSD to invest another \$200 million through 2040 on wet weather controls and then submit a Final Remediation Plan, which may call for (1) full implementation of the RWWMP, (2) a subset of priority projects from the scenario with the greatest environmental benefits, (3) investments in emerging environmental issues including sea level rise adaptation, or (4) some combination of these or other regional environmental priorities. While cost projections in this time frame are inherently speculative, this subset of projects could cost \$1 billion or more over a 20 to 25-year period (through 2055 or later).

State Consent Agreement for Town of Surry Treatment Plant

Effective October 1, 2017, HRSD assumed ownership and operation of the Town of Surry sewage treatment plant (the “Surry Treatment Plant”). The Surry Treatment Plant is a small facility with a design capacity of 0.06 million gallons per day. HRSD took over Surry Treatment Plant on a voluntary basis to benefit water quality in the region and assist in resolving the facility’s longstanding noncompliance with its Virginia Pollutant Discharge Elimination System discharge permit. HRSD’s effort has been conducted in coordination with the Virginia State Water Control Board and the Virginia Department of Environmental Quality. Because the Surry Treatment Plant was known to be in noncompliance at the time of HRSD’s acquisition, HRSD and the Virginia Department of Environmental Quality have negotiated, and HRSD entered into, a penalty-free consent order (the “Surry Consent Order”) establishing a favorable framework for corrective action at the Surry Treatment Plant. Under the Surry Consent Order, the Virginia Department of Environmental Quality has established achievable interim effluent limitations that are in effect until November 1, 2020. HRSD staff anticipates seeking authorization from the Commission to modify the System’s existing Surry County capital improvements to build a new interceptor force main to divert the flow from the two Surry County treatment plants to the Nansemond treatment plant. A new interceptor force main would eliminate future plant operations and maintenance costs and increase the District’s service area for future connections. With the longer construction schedule for such a new interceptor force main, HRSD will require an extension to the November 1, 2020, deadline in the Surry Consent Order.

FINANCIAL MANAGEMENT

General

Through its annual budget process, management seeks to ensure that operating revenues are sufficient to meet operating expenditures and sufficient reserves are available in the event actual billings do not meet budget estimates. The construction of new plants and extension of the interceptor system are financed by a combination of operating revenues and debt financing. The following table sets out the District’s operating results and debt service coverage for the Fiscal Years ended June 30, 2014, through June 30, 2018.

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Summary of Operating Expenses and Debt Service Coverage
(Dollar Amounts in Thousands)
(As of Fiscal Years ended June 30)⁽¹⁾

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Operating Revenues					
Wastewater Treatment Charges	\$275,539	\$254,961	\$234,020	\$221,626	\$211,538
Miscellaneous	<u>3,504</u>	<u>3,669</u>	<u>3,861</u>	<u>3,935</u>	<u>3,643</u>
Total Operating Revenues	<u>\$279,043</u>	<u>\$258,630</u>	<u>\$237,881</u>	<u>\$225,561</u>	<u>\$215,181</u>
Non-Operating Revenues (Expenses), excluding capital grants received					
Wastewater Facility Charges	\$6,673	\$7,511	\$6,699	\$7,428	\$6,640
Investment Earnings	3,654	2,287	1,563	1,695	1,872
Bond Interest Subsidy ⁽²⁾	2,330	2,275	2,399	2,444	2,364
Disposal of Capital Assets	-	-	-	-	-
Bond Issue Costs	(1,061)	(42)	(1,713)	(768)	-
Change in Fair Value of Investments	<u>(1,382)</u>	<u>(1,119)</u>	<u>750</u>	<u>(286)</u>	<u>(422)</u>
Total Non-Operating Revenues	<u>10,214</u>	<u>10,912</u>	<u>9,698</u>	<u>\$10,513</u>	<u>\$10,454</u>
Total Revenues	<u>\$289,257</u>	<u>\$269,542</u>	<u>\$247,579</u>	<u>\$236,074</u>	<u>\$225,635</u>
Less Operating Expenses, Excluding Depreciation	<u>(157,462)</u>	<u>(153,387)</u>	<u>(146,601)</u>	<u>(152,815)⁽⁴⁾</u>	<u>(142,161)</u>
Net Revenues	<u>\$131,795</u>	<u>\$116,155</u>	<u>\$100,978</u>	<u>\$83,259</u>	<u>\$83,474</u>
Total Senior Obligations Debt Service Coverage on Senior Obligations ⁽³⁾	\$36,488 3.61	\$35,279 3.29	\$43,419 2.33	\$44,937 1.85	\$47,220 1.77
Total Senior Obligations and Parity Obligations Debt Service Coverage on Senior Obligations and Parity Obligations ⁽³⁾	\$57,121 2.31	\$57,988 2.00	\$54,643 1.85	\$57,465 1.45	\$59,739 1.40

(1) Revenues and Operating Expenses presented in accordance with generally accepted accounting principles. Debt Service presented on a cash basis (i.e., debt service actually due during the related Fiscal Year).

(2) Actual Build America Bonds subsidy received from the federal government relating to interest on the Series 2009B Bonds.

(3) Calculated based on actual debt service payable on a current year basis.

(4) Effective July 1, 2015, HRSD adopted GASB Statement No. 68, Accounting and Financial Reporting for Pensions and GASB Statement No. 71, Pension Transition for Contributions Made Subsequent to the Measurement Date.

For purposes of the Senior Trust Agreement, the Liquidity Ratio is the resulting dividend of unrestricted cash divided by the Maximum Annual Debt Service on Senior Obligations. Unrestricted cash includes "... cash, cash equivalents and marketable securities that do not constitute Restricted Funds held by the District for its various purposes, but not including cash, cash equivalents and securities which constitute proceeds of Indebtedness issued to finance capital improvements or funds held in the Bond Fund for Senior Obligations (or any similar sinking fund held by a trustee for the payment of Indebtedness) or the Debt Service Reserve Fund." The Senior Trust Agreement requires that the District maintain a minimum Liquidity Ratio of 1.35 or fund the Debt Service Reserve Fund at the Debt Service Reserve Fund Requirement. The following table reflects the Liquidity Ratio for Fiscal Years 2014 to 2018. Amounts held in the Debt Service Reserve Fund for the Senior Obligations are not security for the Subordinate Obligations.

Historical Liquidity Ratio
(Dollar amounts in thousands)
(As of Fiscal Years ended June 30)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cash and Cash Equivalents	\$66,078	\$92,076	\$68,314	\$7,825	\$37,924
Investments – Current	17,871	14,260	18,544	19,926	-
Investments – Non-Current	<u>106,219</u>	<u>109,489</u>	<u>105,009</u>	<u>101,649</u>	<u>111,861</u>
Total Cash, Cash Equivalents and Investments – Unrestricted	\$190,168	\$215,763	\$191,867	\$129,400	\$149,785
Cash and Cash Equivalents – Restricted	95,077	22,701	91,559	86,451	139,257
Investments – Current - Restricted	-	-	-	-	8,600
Total Cash, Cash Equivalents and Investments*	<u>\$285,245</u>	<u>\$238,464</u>	<u>\$283,426</u>	<u>\$215,851</u>	<u>\$297,642</u>
Maximum Annual Debt Service†	\$64,613	\$60,206	\$57,949	\$57,807	\$59,776
Liquidity Ratio	2.94	3.58	3.31	2.24	2.51
Required Liquidity Ratio†	1.35	1.35	1.35	1.35	1.35

* Includes amounts set aside pursuant to the Senior Trust Agreement and Trust Agreement for debt service.

† Ratio to be maintained without triggering requirement under the Senior Trust Agreement to fund the Debt Service Reserve Fund for Senior Bonds. Debt service is calculated in accordance with the Senior Trust Agreement calculation of the Liquidity Ratio, which includes adjustments for Balloon Long-Term Indebtedness and Variable Rate Long-Term Indebtedness.

Pension Fund and Other Post-Retirement Benefits. For a description of the District's participation in the Virginia Retirement System, a defined benefit plan offered by the Commonwealth of Virginia, and of the post-retirement health benefits for qualifying employees of the District, see the District's Comprehensive Annual Financial Report attached as Appendix A hereto.

Debt Management. The Commission has adopted a comprehensive financial policy designed to promote sound financial management. The policy addresses, but is not limited to the following areas: reserves, budgetary principles and controls, debt affordability, debt management, risk management, derivatives and investments. The Commission has the right to change the financial policy from time to time.

The policy requires minimum debt service coverage requirements in excess of its obligations under the Trust Agreement. It also requires cash contributions to its capital program of not less than 15% of each year's capital improvement program. Additionally, the policy establishes parameters for the investment of idle funds.

Projected Operating Results. The following table shows projected Revenues and Current Expenses for the Fiscal Years ending June 30, 2020, through June 30, 2024, inclusive.

**Summary of Projected Revenues and Current Expenses
(Dollar Amounts in Thousands)
(As of Fiscal Years ended June 30)⁽¹⁾**

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Operating Revenues	\$324,650	\$349,347	\$376,115	\$404,884	\$427,953
Non-Operating Revenues	13,155	13,422	13,518	13,699	13,714
Operating Expenses Excluding Depreciation	<u>(183,348)</u>	<u>(187,136)</u>	<u>(197,553)</u>	<u>(199,927)</u>	<u>(211,937)</u>
Net Revenues	<u>\$154,457</u>	<u>\$175,633</u>	<u>\$192,080</u>	<u>\$218,656</u>	<u>\$229,730</u>
Senior Obligation Debt Service ⁽²⁾	\$33,531	\$31,909	\$30,374	\$33,556	\$33,474
Total Debt Service ⁽²⁾⁽³⁾	63,895	64,316	66,690	75,386	77,231
Total Debt Service Coverage Ratio ⁽²⁾⁽³⁾	2.41	2.73	2.88	2.90	2.97
Key Assumptions⁽³⁾					
Rate Increases	9.1%	9.0%	9.1%	9.0%	7.0%
Decline in Consumption	1.0%	1.0%	1.0%	1.0%	1.0%
Key Inflation Trends					
Average Inflation	3.0%	3.0%	3.0%	3.0%	3.0%
Personal Expenses	3.9%	3.9%	3.9%	3.9%	3.9%
Healthcare Rates	5.4%	5.3%	5.2%	5.2%	5.2%
Contractual Services	5.0%	5.0%	5.0%	5.0%	5.0%
Costs of Issuance	350	-	755	-	1,358

(1) Totals may not add due to rounding.

(2) Debt Service based on generally accepted accounting principles.

(3) Assumes debt service on variable rate Subordinate 2016B Bonds of 2.5% per annum. No assurance can be given, however, that the rate on the Subordinate 2016B Bonds will not be higher than assumed above.

(3) While the District believes the assumptions set forth above are reasonable, actual results may vary.

Budgeting and Accounting

Budgetary Controls. The District adopts an annual operating budget and a 10-year Capital Improvement Plan. The budget is approved on or before June 30 of each year. The District maintains

budgetary controls on a departmental basis. With the exception of capital projects, unencumbered funds lapse at year end. As part of the budget process, the District adopts a long-range financial forecast.

Financial Statements. In accordance with accounting principles generally accepted in the United States, the District's audited general purpose financial statements are prepared on an accrual basis of accounting. The District's audited basic financial statements and the report thereon by KPMG LLP, for the Fiscal Year ended June 30, 2018, are included in Appendix A. The District's independent auditor, KPMG LLP, has not been engaged to perform and has not performed, since the date of its report included in Appendix A, any procedures on the financial statements addressed in that report. KPMG LLP also has not performed any procedures relating to this Official Statement.

The Government Finance Officers Association of the United States and Canada has awarded a Certificate of Achievement for excellence in Financial Reporting to the District for its comprehensive annual financial reports for 36 consecutive Fiscal Years. In order to be awarded a Certificate of Excellence, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such reports must satisfy both generally accepted accounting principles and applicable legal requirements.

Rates

The District periodically reviews its rate structure and revises its charges as necessary to generate the revenues required to meet its current financial obligations. The most recent general increase in rates became effective July 1, 2019. The District's full rate schedule appears on the District's website, www.hrsd.com.

The District's typical residential customer pays less than \$33 per month for sewage interception and treatment services provided by the District. The District's sewage interception and treatment charge generally is one of the smallest public service utility bills its customers receive. Generally, the District bills and collects directly from its customers on a monthly, bimonthly, or quarterly basis depending upon the community. The jurisdictions provide the meter readings, which are the basis of the District's billing operation.

The District charges surcharge rates to recover costs in direct proportion to volume and pollutant concentrations in excess of typical residential wastewater. Industrial users are typically permitted facilities requiring periodic effluent sampling. Effective July 1, 2019, the District implemented a new surcharge program for non-permitted commercial facilities, such as restaurants, to ensure an efficient and uniform application of rates. In this program, surcharge categories and average values were developed using sampling data for groups of businesses that produce similar goods or services using NAICS industry groupings. This eliminates the need for staff to sample every non-permitted commercial facility that may require a surcharge fee.

The District provides billing and cashing services to several of the jurisdictions it serves, including Chesapeake, James City County, Norfolk, Smithfield, Suffolk, King William, Urbanna and Surry County, excluding the Town of Claremont. The combined bill can include jurisdictional charges for water, solid waste disposal, sewage collection, storm water mitigation and District charges for sewage interception and treatment. To date these services have been provided at minimum cost to assist the jurisdictions and customers the District serves to minimize the number of bills the customers receive and number of payments they need to make.

Rate Making Process

The Enabling Act provides that the Commission is to fix and revise rates, fees and charges to provide funds that, with other funds available for such purposes, will be sufficient at all times (a) to pay the cost of maintaining, repairing and operating the Wastewater System and all improvements thereto, including reserves for such purpose and for renewals and replacements and necessary extensions and additions to the Wastewater System, (b) to pay the principal of and the interest on such revenue bonds as the same shall become due and to provide reserves therefor, and (c) to provide a margin of safety for making such payments.

The Enabling Act provides that before any revision of rates, fees and charges shall become effective the Commission shall publish a copy thereof for four consecutive weeks in a newspaper of general circulation within the District. If, on or before the last publication, the governing body of any city or county constituting a part of the District or five hundred or more qualified voters residing within the District file a petition with the Virginia State Corporation Commission complaining of the proposed revision, the State Corporation Commission may by order suspend the placing in effect of such revision for a period not exceeding sixty days from the filing of any such petition during which time it shall investigate whether such revision is just and equitable and in accordance with the provisions of the Enabling Act. If the State Corporation Commission does not enter an order suspending, approving or disapproving such revision within sixty days from the filing of any such petition, such revision will be deemed to be in effect. The District or the party or parties filing a petition may appeal to the Supreme Court of Virginia from any such order as may be entered by the State Corporation Commission.

Collection of Unpaid Wastewater Treatment Charges

The Enabling Act provides that if any bill for wastewater treatment charges is not paid in full when the same becomes due, the owner, tenant or occupant of such lot or parcel of land shall, until wastewater treatment charges are paid, cease to dispose of wastewater or industrial wastes originating from or on such property by discharge thereof directly or indirectly into the Wastewater System, and if such owner, tenant or occupant does not cease such discharge within 60 days after the delinquent fees and charges are due, it shall be the duty of each public or private agency supplying water to such property, within 10 days after receipt of notice of such facts from the District, to cease supplying water to such property. If the water supply is not stopped, the District has the power to enter into any public or private property to shut off the property's water supply.

The District participates in the Virginia Set-Off Debt Collection Program administered by the Virginia Department of Taxation. This program provides a means for government units and courts to collect delinquent debts by attaching individual income tax refunds and certain state lottery winnings. Jurisdictions participating in the Hampton Roads Utility Billing Service (which is managed by the District) may have the District submit their balances along with the District's. This benefits the jurisdictions since, under the Debt Set-Off Collection Program, the District has a higher payoff priority than counties and cities. The following table shows the District's treatment charge collection rate for the last ten Fiscal Years.

**Hampton Roads Sanitation District
Collection Rate**

Fiscal Year Ended June 30,	Percentage of Wastewater Treatment Charges Collected
2009	96.5%
2010	99.2
2011	98.8
2012	99.1
2013	99.3
2014	99.3
2015	99.1
2016	99.1
2017	99.1
2018	99.3

LITIGATION

There is no litigation pending in any court (either state or federal) or, to the knowledge of the District, threatened against the District that in any way questions or affects the validity of or the security for the Series 2019A Bonds or that would have a material adverse effect on the District's condition, financial or otherwise.

APPROVAL OF LEGAL PROCEEDINGS

The Series 2019A Bonds are offered subject to the approving opinion of Norton Rose Fulbright US LLP, Washington, D.C., Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel, Kellam, Pickrell, Cox & Anderson, A Professional Corporation, Norfolk, Virginia, and for the Underwriters by Kaufman & Canoles, a Professional Corporation, Richmond, Virginia.

TAX MATTERS

General

Interest on the Series 2019A Bonds will be includable in the gross income of the owners thereof for purposes of federal income taxation. See “—Certain U.S. Federal Income Tax Considerations” below.

Certain U.S. Federal Income Tax Considerations

The following summary of certain United States federal income tax consequences of the purchase, ownership and disposition of the Series 2019A Bonds is based upon laws, regulations, rulings and decisions now in effect, all of which are subject to change (including changes in effective dates), which change may be retroactive, or possible differing interpretations. No assurance can be given that future changes in the law will not alter the consequences described herein. It deals only with the Series 2019A Bonds held as capital assets and does not purport to deal with persons in special tax situations, including but not limited to financial institutions, insurance companies, regulated investment companies, dealers in securities or currencies, persons holding the Series 2019A Bonds as a hedge against currency risks or as a position in a “straddle” for tax purposes, or persons whose functional currency is not the U.S.

dollar. It also does not deal with holders other than investors who purchase Series 2019A Bonds in the initial offering at the first price at which a substantial amount of such substantially identical bonds are sold to the general public (except where otherwise specifically noted). Persons considering the purchase of the Series 2019A Bonds should consult their own tax advisors concerning the application of U.S. federal income tax laws to their particular situations as well as any consequences of the purchase, ownership and disposition of the Series 2019A Bonds arising under the laws of any other taxing jurisdiction.

As used herein, the term “U.S. Holder” means a beneficial owner of a Series 2019A Bond that is for U.S. federal income tax purposes (i) a citizen or resident of the United States, (ii) a corporation (including an entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (iii) an estate, the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust, or (b) the trust was in existence on August 20, 1996, and properly elected to continue to be treated as a United States person. Moreover, as used herein, the term “U.S. Holder” includes any holder of a Series 2019A Bond whose income or gain in respect of its investment in a Series 2019A Bond is effectively connected with the U.S. trade or business. As used herein, the term “Non-U.S. Holder” means a beneficial Owner of a Series 2019A Bond (other than an entity that is classified as a partnership) that is not a U.S. Holder.

If a partnership (including for this purpose any entity treated as a partnership for United States federal income tax purposes) is the beneficial owner of any Series 2019A Bond, the treatment of a partner in that partnership will generally depend upon the status of such partner and the activities of such partnership. A partnership and any partner in a partnership holding Series 2019A Bonds should consult its own tax advisor.

Payments of Interest

Payments of interest on a Series 2019A Bond generally will be taxable to a U.S. Holder as ordinary interest income at the time such payments are accrued or are received (in accordance with the U.S. Holder’s regular method of tax accounting), provided such interest is “qualified stated interest,” as defined below.

Original Issue Discount

The following summary is a general discussion of the U.S. federal income tax consequences to U.S. Holders of the purchase, ownership and disposition of Series 2019A Bonds issued with original issue discount (“OID Bonds”), if any. The following summary is based upon final Treasury regulations (the “OID Regulations”) released by the Internal Revenue Service (“IRS”) under the original issue discount provisions of the Code.

For U.S. federal income tax purposes, original issue discount is the excess of the stated redemption price at maturity of a bond over its issue price, if such excess equals or exceeds a de minimis amount (generally 1/4 of 1% of the bond’s stated redemption price at maturity multiplied by the number of complete years to its maturity from its issue date or, in the case of a bond providing for the payment of any amount other than qualified stated interest (as defined below) prior to maturity, multiplied by the weighted average maturity of such bond). The issue price of each maturity of substantially identical Series 2019A Bonds equals the first price at which a substantial amount of such maturity of Series 2019A Bonds has been sold (ignoring sales to bond houses, brokers or similar persons or organizations acting in

the capacity of underwriters, placement agents or wholesalers), which may not be the same as the prices shown on the inside cover of this official statement. The stated redemption price at maturity of a Series 2019A Bond is the sum of all payments provided by the Series 2019A Bond other than “qualified stated interest” payments. The term “qualified stated interest” generally means stated interest that is unconditionally payable in cash or property (other than debt instruments of the issuer) at least annually at a single fixed rate. Payments of qualified stated interest on a Series 2019A Bond are generally taxable to a U.S. Holder as ordinary interest income at the time such payments are accrued or are received (in accordance with the U.S. Holder’s regular method of tax accounting).

A U.S. Holder of an OID Bond must include original issue discount in income as ordinary interest income for U.S. federal income tax purposes as it accrues under a constant yield method in advance of receipt of the cash payments attributable to such income, regardless of such U.S. Holder’s regular method of tax accounting. In general, the amount of original issue discount included in income by the initial U.S. Holder of an OID Bond is the sum of the daily portions of original issue discount with respect to such OID Bond for each day during the taxable year (or portion of the taxable year) on which such U.S. Holder held such OID Bond. The “daily portion” of original issue discount on any OID Bond is determined by allocating to each day in any accrual period a ratable portion of the original issue discount allocable to that accrual period. An “accrual period” may be of any length and the accrual periods may vary in length over the term of the OID Bond, provided that each accrual period is no longer than one year and each scheduled payment of principal or interest occurs either on the final day of an accrual period or on the first day of an accrual period. The amount of original issue discount allocable to each accrual period is generally equal to the difference between (i) the product of the OID Bond’s adjusted issue price at the beginning of such accrual period and its yield to maturity (determined on the basis of compounding at the close of each accrual period and appropriately adjusted to take into account the length of the particular accrual period) and (ii) the amount of any qualified stated interest payments allocable to such accrual period. The “adjusted issue price” of an OID Bond at the beginning of any accrual period is the sum of the issue price of the OID Bond plus the amount of original issue discount allocable to all prior accrual periods minus the amount of any prior payments on the OID Bond that were not qualified stated interest payments. Under these rules, U.S. Holders generally will have to include in income increasingly greater amounts of original issue discount in successive accrual periods.

A U.S. Holder who purchases an OID Bond for an amount that is greater than its adjusted issue price as of the purchase date and less than or equal to the sum of all amounts payable on the OID Bond after the purchase date, other than payments of qualified stated interest, will be considered to have purchased the OID Bond at an “acquisition premium.” Under the acquisition premium rules, the amount of original issue discount which such U.S. Holder must include in its gross income with respect to such OID Bond for any taxable year (or portion thereof in which the U.S. Holder holds the OID Bond) will be reduced (but not below zero) by the portion of the acquisition premium properly allocable to the period.

U.S. Holders may generally, upon election, include in income all interest (including stated interest, acquisition discount, original issue discount, de minimis original issue discount, market discount, de minimis market discount, and unstated interest, as adjusted by any amortizable bond premium or acquisition premium) that accrues on a debt instrument by using the constant yield method applicable to original issue discount, subject to certain limitations and exceptions. This election will generally apply only to the debt instrument with respect to which it is made and may be revoked only with the consent of the IRS.

Market Discount

If a U.S. Holder purchases a Series 2019A Bond, other than an OID Bond, for an amount that is less than its issue price (or, in the case of a subsequent purchaser, its stated redemption price at maturity)

or, in the case of an OID Bond, for an amount that is less than its adjusted issue price as of the purchase date, such U.S. Holder will be treated as having purchased such Series 2019A Bond at a “market discount,” unless the amount of such market discount is less than a specified de minimis amount.

Under the market discount rules, a U.S. Holder will be required to treat any partial principal payment (or, in the case of an OID Bond, any payment that does not constitute qualified stated interest) on, or any gain realized on the sale, exchange, retirement or other disposition of, a Series 2019A Bond as ordinary income to the extent of the lesser of (i) the amount of such payment or realized gain or (ii) the market discount which has not previously been included in gross income and is treated as having accrued on such Series 2019A Bonds at the time of such payment or disposition. Market discount will be considered to accrue ratably during the period from the date of acquisition to the maturity date of the Series 2019A Bonds, unless the U.S. Holder elects to accrue market discount on the basis of semiannual compounding.

A U.S. Holder may be required to defer the deduction of all or a portion of the interest paid or accrued on any indebtedness incurred or maintained to purchase or carry a Series 2019A Bond with market discount until the maturity of such Series 2019A Bond or certain earlier dispositions, because a current deduction is only allowed to the extent the interest expense exceeds an allocable portion of market discount. A U.S. Holder may elect to include market discount in income currently as it accrues (on either a ratable or semiannual compounding basis), in which case the rules described above regarding the treatment as ordinary income or gain upon the disposition of the Series 2019A Bond and upon the receipt of certain cash payments and regarding the deferral of interest deductions will not apply. Generally, such currently included market discount is treated as ordinary interest for U.S. federal income tax purposes. Such an election will apply to all debt instruments acquired by the U.S. Holder on or after the first day of the first taxable year to which such election applies and may be revoked only with the consent of the IRS.

Premium

If a U.S. Holder purchases a Series 2019A Bond for an amount that is greater than the sum of all amounts payable on the Series 2019A Bond after the purchase date, other than payments of qualified stated interest, such U.S. Holder will be considered to have purchased the Series 2019A Bond with “amortizable bond premium” equal in amount to such excess. A U.S. Holder may elect to amortize such premium using a constant yield method over the remaining term of the Series 2019A Bond and may offset interest otherwise required to be included in respect of the Series 2019A Bond during any taxable year by the amortized amount of such excess for the taxable year. Bond premium on a Series 2019A Bond held by a U.S. Holder that does not make such an election will decrease the amount of gain or increase the amount of loss otherwise recognized on the sale, exchange, redemption or retirement of a Series 2019A Bond. However, if the Series 2019A Bond may be optionally redeemed after the U.S. Holder acquires it at a price in excess of its stated redemption price at maturity, special rules would apply which could result in a deferral of the amortization of some bond premium until later in the term of the Series 2019A Bond (as discussed in more detail below). Any election to amortize bond premium applies to all taxable debt instruments held by the U.S. Holder on or after the first day of the first taxable year to which such election applies and may be revoked only with the consent of the IRS.

The following rules apply to any Series 2019A Bond that may be optionally redeemed after the U.S. Holder acquires it at a price in excess of its stated redemption price at maturity. The amount of amortizable bond premium attributable to such Series 2019A Bond is equal to the lesser of (1) the difference between (A) such U.S. Holder’s tax basis in the Series 2019A Bond and (B) the sum of all amounts payable on such Series 2019A Bond after the purchase date, other than payments of qualified stated interest and (2) the difference between (X) such U.S. Holder’s tax basis in such Series 2019A Bond and (Y) the sum of all amounts payable on such Series 2019A Bond after the purchase date due on or

before the early call date, other than payments of qualified stated interest. If a Series 2019A Bond may be redeemed on more than one date prior to maturity, the early call date and amount payable on the early call date that produces the lowest amount of amortizable bond premium, is the early call date and amount payable that is initially used for purposes of calculating the amount pursuant to clause (2) of the previous sentence. If an early call date is not taken into account in computing premium amortization and the early call is in fact exercised, a U.S. Holder will be allowed a deduction for the excess of the U.S. Holder's tax basis in the Series 2019A Bond over the amount realized pursuant to the redemption. If an early call date is taken into account in computing premium amortization and the early call is not exercised, the Series 2019A Bond will be treated as "reissued" on such early call date for the call price. Following the deemed reissuance, the amount of amortizable bond premium is recalculated pursuant to the rules of this section "Premium." The rules relating to Series 2019A Bonds that may be optionally redeemed are complex and, accordingly, prospective purchasers are urged to consult their own tax advisors regarding the application of the amortizable bond premium rules to their particular situation.

Disposition of a Series 2019A Bond

Except as discussed above, upon the sale, exchange or retirement of a Series 2019A Bond, a U.S. Holder generally will recognize taxable gain or loss equal to the difference between the amount realized on the sale, exchange or retirement (other than amounts representing accrued and unpaid interest) and such U.S. Holder's adjusted tax basis in the Series 2019A Bond. A U.S. Holder's adjusted tax basis in a Series 2019A Bond generally will equal such U.S. Holder's initial investment in the Series 2019A Bond increased by any original issue discount included in income (and accrued market discount, if any, if the U.S. Holder has included such market discount in income) and decreased by the amount of any payments, other than qualified stated interest payments, received and amortizable bond premium taken with respect to such Series 2019A Bond. Such gain or loss generally will be long-term capital gain or loss if the Series 2019A Bond has been held by the U.S. Holder at the time of disposition for more than one year. If the U.S. Holder is an individual, long-term capital gain will be subject to reduced rates of taxation. The deductibility of capital losses is subject to certain limitations.

Defeasance

Persons considering the purchase of a Series 2019A Bond should be aware that a defeasance of a Series 2019A Bond by the District prior to maturity could result in the realization of gain or loss by the beneficial owner of the Series 2019A Bond for federal income tax purposes, without any corresponding receipts of money by the beneficial owner. Such gain or loss generally would be subject to recognition for the tax year in which such realization occurs, as in the case of a sale or exchange. Owners are advised to consult their own tax advisers with respect to the tax consequences resulting from such events. See "THE SERIES 2019A BONDS—Redemption Provisions—Defeasance of Series 2019A Bonds" herein.

Medicare Tax

For taxable years beginning after December 31, 2012, an additional 3.8% tax has been imposed on the net investment income (which includes interest, original issue discount and net gains from a disposition of a Series 2019A Bond) of certain individuals, trust and estates. Prospective investors in the Series 2019A Bonds should consult their tax advisors regarding the possible applicability of this tax to an investment in the Series 2019A Bonds.

Backup Withholding

A beneficial owner of the Series 2019A Bonds who is a U.S. Holder may, under certain circumstances, be subject to "backup withholding" (currently at a rate of 24%) on current or accrued

interest on the Series 2019A Bonds or with respect to proceeds received from a disposition of the Series 2019A Bonds. This withholding applies if such beneficial owner of Series 2019A Bonds: (i) fails to furnish to the payor such beneficial owner's social security number or other taxpayer identification number ("TIN"); (ii) furnishes the payor an incorrect TIN; (iii) fails to report interest properly; or (iv) under certain circumstances, fails to provide the payor or such beneficial owner's broker with a certified statement, signed under penalty of perjury, that the TIN provided to the payor or broker is correct and that such beneficial owner is not subject to backup withholding. To establish status as an exempt person, a beneficial owner will generally be required to provide certification on IRS Form W-9 (or substitute form).

Backup withholding will not apply, however, if the beneficial owner is a corporation or falls within certain tax-exempt categories and, when required, demonstrates such fact. **BENEFICIAL OWNERS OF THE SERIES 2019A BONDS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THEIR QUALIFICATION FOR EXEMPTION FROM BACKUP WITHHOLDING AND THE PROCEDURE FOR OBTAINING SUCH EXEMPTION, IF APPLICABLE.** The backup withholding tax is not an additional tax and taxpayers may use amounts withheld as a credit against their federal income tax liability or may claim a refund as long as they timely provide certain information to the IRS.

Withholding on Payments to Nonresident Alien Individuals and Foreign Corporations

Nonresident alien individuals and foreign corporations are generally subject to withholding of U.S. federal income tax by the payor at the rate of 30% on periodic income items arising from sources within the United States, provided such income is not effectively connected with the conduct of a United States trade or business. Assuming the interest income of such a beneficial owner of the Series 2019A Bonds is not treated as effectively connected income within the meaning of Section 864 of the Code, such interest will be subject to 30% withholding, or any lower rate specified in an income tax treaty, unless such income is treated as "portfolio interest." Interest will be treated as portfolio interest if (i) the beneficial owner provides a statement to the payor certifying, under penalties of perjury, that such beneficial owner is a Non-U.S. Holder and providing the name and address of such beneficial owner, (ii) such interest is treated as not effectively connected with the beneficial owner's United States trade or business, (iii) interest payments are not made to a person within a foreign country which the IRS has included on a list of countries having provisions inadequate to prevent United States tax evasion, (iv) interest payable with respect to the Series 2019A Bonds is not deemed contingent interest within the meaning of the portfolio debt provision, (v) such beneficial owner is not a controlled foreign corporation within the meaning of Section 957 of the Code and (vi) such beneficial owner is not a bank receiving interest on the Series 2019A Bonds pursuant to a loan agreement entered into in the ordinary course of the bank's trade or business.

Assuming payments on the Series 2019A Bonds are treated as portfolio interest within the meaning of Sections 871 and 881 of the Code, then no withholding under Section 1441 and 1442 of the Code, and no backup withholding under Section 3406 of the Code is required with respect to beneficial owners or intermediaries who have furnished Form W-8 BEN, Form W-8 BEN-E, Form W-8 EXP, or Form W-8 IMY, as applicable, provided the payor has no actual knowledge or reason to know that such person is a U.S. Holder.

A non-U.S. Holder whose income with respect to its investment in a Series 2019A Bond is effectively connected with the conduct of a U.S. trade or business would generally be taxed as if the holder was a U.S. person provided the holder provides to the Withholding Agent an IRS Form W-8ECI.

Generally, a non-U.S. Holder will not be subject to United States federal income taxes on any amount which constitutes capital gain upon retirement or disposition of a Series 2019A Bond, unless such

non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of the disposition and such gain is derived from sources within the United States. Certain other exceptions may be applicable, and a non-U.S. Holder should consult its tax advisor in this regard.

The Series 2019A Bonds will not be includable in the estate of a non-U.S. Holder unless, at the time of such individual's death, payments in respect of the Series 2019A Bonds would have been effectively connected with the conduct by such individual of a trade or business in the United States.

Foreign Account Tax Compliance Act

Sections 1471 through 1474 of the Code impose a 30% withholding tax on certain types of payments made to a foreign financial institution, unless the foreign financial institution enters into an agreement with the U.S. Treasury to, among other things, undertake to identify accounts held by certain U.S. persons or U.S.-owned entities, annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these and other reporting requirements, or unless the foreign financial institution is otherwise exempt from those requirements. In addition, the Foreign Account Tax Compliance Act ("FATCA") imposes a 30% withholding tax on the same types of payments to a non-financial foreign entity unless the entity certifies that it does not have any substantial U.S. owners or the entity furnishes identifying information regarding each substantial U.S. owner. Failure to comply with the additional certification, information reporting and other specified requirements imposed under FATCA could result in the 30% withholding tax being imposed on payments of interest and principal under the Series 2019A Bonds and sales proceeds of Series 2019A Bonds held by or through a foreign entity. In general, withholding under FATCA currently applies to payments of U.S. source interest (including original issue discount) and will apply to (i) gross proceeds from the sale, exchange or retirement of debt obligations paid after December 31, 2018, and (ii) certain "pass-thru" payments but no earlier than two years after the date of publication of final regulations defining the term "foreign pass-thru payment." Prospective investors should consult their own tax advisors regarding FATCA and its effect on them.

ERISA Considerations

The Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and section 4975 of the Code generally prohibit certain transactions between employee benefit plans under ERISA or tax qualified retirement plans and individual retirement accounts under the Code (collectively, the "Plans") and persons who, with respect to a Plan, are fiduciaries or other "parties in interest" within the meaning of ERISA or "disqualified persons" within the meaning of the Code. In addition, each fiduciary of a Plan ("Plan Fiduciary") must give appropriate consideration to the facts and circumstances that are relevant to an investment in the Series 2019A Bonds, including the role that such an investment in the Series 2019A Bonds would play in the Plan's overall investment portfolio. Each Plan Fiduciary, before deciding to invest in the Series 2019A Bonds, must be satisfied that such investment in the Series 2019A Bonds is a prudent investment for the Plan, that the investments of the Plan, including the investment in the Series 2019A Bonds, are diversified so as to minimize the risk of large losses and that an investment in the Series 2019A Bonds complies with the documents of the Plan and related trust, to the extent that such documents are consistent with ERISA. All Plan Fiduciaries, in consultation with their advisors, should carefully consider the impact of ERISA and the Code on an investment in any Series 2019A Bonds.

Virginia Taxes

The Enabling Act provides that the Series 2019A Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, shall be free and exempt from taxation by the Commonwealth of Virginia and by any political subdivision thereof.

UNDERWRITING

Pursuant and subject to the terms and conditions set forth in a Bond Purchase Agreement (the "Purchase Agreement"), dated August 29, 2019, between the District and Citigroup Global Markets Inc., FTN Financial Capital Markets and UBS Financial Services Inc. (the "Underwriters"), for whom Citigroup Global Markets Inc. is acting as representative, and the District, the Underwriters will agree to purchase from the District, and the District will agree to sell to the Underwriters, all, but not less than all, of the Series 2019A Bonds at a purchase price that results in an Underwriters' discount of \$442,090.69. The Underwriters have supplied the information as to the prices shown on the inside cover page.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Under certain circumstances, the Underwriters and their affiliates may have certain creditor or other rights against the District and its affiliates in connection with such activities. In the course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities or instruments of the District (directly, as collateral securing other obligations or otherwise) or persons and entities with relationships with the District. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long or short positions in such assets, securities and instruments.

Citigroup Global Markets Inc., an Underwriter of the Series 2019A Bonds, has entered into a retail distribution agreement with Fidelity Capital Markets, a division of National Financial Services LLC (together with its affiliates, "Fidelity"). Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors at the original issue price through Fidelity. As part of this arrangement, Citigroup Global Markets Inc. will compensate Fidelity for its selling efforts with respect to the Series 2019A Bonds.

FTN Financial Capital Markets is a division of First Tennessee Bank National Association and FTB Advisors, Inc., is a wholly owned subsidiary of First Tennessee Bank National Association. FTN Financial Capital Markets has entered into a distribution agreement with FTB Advisors, Inc., for the distribution of the offered Series 2019A Bonds at the original issue prices. Such arrangement generally provides that FTN Financial Capital Markets will share a portion of its underwriting compensation or selling concession with FTB Advisors, Inc.

UBS Financial Services Inc. ("UBS FSI"), one of the underwriters of the Series 2019A Bonds, has entered into a distribution and service agreement with its affiliate UBS Securities LLC ("UBS Securities") for the distribution of certain municipal securities offerings, including the Series 2019A Bonds. Pursuant to such agreement, UBS FSI will share a portion of its underwriting compensation with

respect to the Series 2019A Bonds with UBS Securities. UBS FSI and UBS Securities are each subsidiaries of UBS Group AG.

FINANCIAL ADVISOR

The District has retained PFM Financial Advisors LLC, Arlington, Virginia, as financial advisor (the “Financial Advisor”) in connection with the issuance of the Series 2019A Bonds. Although the Financial Advisor assisted in the review of this Official Statement, the Financial Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness, or fairness of the information contained in this Official Statement. The Financial Advisor is a financial advisory, investment management and consulting organization and is not engaged in the business of underwriting municipal securities.

VERIFICATION OF MATHEMATICAL COMPUTATIONS FOR THE REFUNDED BONDS

The accuracy of the arithmetical and mathematical computations (a) of the adequacy of the maturity principal amounts of the Defeasance Obligations in the Escrow Funds, together with the interest income thereon and uninvested cash, if any, to pay, when due, the principal of, redemption premium, if any, and interest on the Refunded Bonds, and (b) relating to the determination of compliance with certain regulations and rulings promulgated under the Code will be verified by Bingham Arbitrage Rebate Services, Inc. Such verification of arithmetical accuracy and computations shall be based upon information and assumptions supplied by the District and on interpretations of the Code provided by Bond Counsel.

RATINGS

The Series 2019A Bonds have been assigned ratings of “AA+” and “AA” by Standard & Poor’s Global Ratings, a division of Standard & Poor’s Financial Services LLC, and Fitch Ratings, respectively. Such ratings reflect only the view of such organizations and a fuller explanation of the significance of such ratings may be obtained from the rating agencies. A rating is not a recommendation to buy, sell or hold the Series 2019A Bonds. The District furnished to such rating agencies certain information regarding its policies, practices and finances, including information that is not included in this Official Statement. There is no assurance that such policies, practices and finances or such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by such rating agencies. Any such downward revision or withdrawal could have an adverse effect on the market price of the Series 2019A Bonds.

CONTINUING DISCLOSURE

The Securities and Exchange Commission has adopted Rule 15c2-12 under the Securities Exchange Act of 1934, as amended (the “Rule”). In general, the Rule prohibits an underwriter from purchasing or selling municipal securities, such as the Series 2019A Bonds, unless it has determined that the issuer of such securities and other persons deemed to be material “obligated persons” have committed to provide to The Electronic Municipal Market Access (“EMMA”) system administered by the Municipal Securities Rulemaking Board (i) on an annual basis, certain financial information and operating data (“Annual Reports”), and audited financial statements, if available, or such unaudited financial statements as may be required by the Rule, and (ii) notice of various events described in the Rule (“Event Notices”).

The District will covenant in the Continuing Disclosure Agreement (the form of which appears in Appendix E) for the benefit of the holders of the Series 2019A Bonds to provide to EMMA annually, not later than December 31 of each year, commencing December 31, 2019, Annual Reports with respect to

itself, as issuer. Similarly, the District will promptly provide Event Notices with respect to the Series 2019A Bonds to EMMA. In the five years preceding the date of this Official Statement, the District has materially complied with its other undertakings under the Rule. The District notes, however, that in connection with the District's determination that it had entered a Reserve Funding Period on December 31, 2010, the District filed notice thereof with EMMA on October 14, 2014.

The Continuing Disclosure Agreement requires the District to provide only that information that is subject to the terms of the Continuing Disclosure Agreement and only at specific times. The District may, from time to time, provide certain information and data in addition to that required by the Continuing Disclosure Agreement. If the District chooses to provide such information and data, it has no obligation to update such information or data or to include it in a future disclosure.

The sole remedy for a default under the Continuing Disclosure Agreement is to bring an action for specific performance of the District's covenants hereunder, and no assurance can be provided as to the outcome of any such proceeding.

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MISCELLANEOUS

All of the foregoing summaries or descriptions of the provisions of the Enabling Act, the Series 2019A Bonds and the Trust Agreement are made subject to all of the detailed provisions thereof to which reference is made for further information. The foregoing summaries do not purport to be complete statements of any or all of the provisions thereof. Copies of the Trust Agreement are available upon request to the District at the following address: 1434 Air Rail Avenue, Virginia Beach, Virginia 23455, Phone (757) 460-2261.

Any statement in this Official Statement involving matters of opinion whether or not expressly so stated is intended as such and not as a representations of fact. The execution and delivery of this Official Statement have been duly authorized by the Commission.

/s/ Frederick N. Elofson
Chair
Hampton Roads Sanitation District Commission

/s/ Edward G. Henifin
General Manager
Hampton Roads Sanitation District

/s/ Jay A. Bernas
Director of Finance
Hampton Roads Sanitation District

APPENDIX A

Basic Financial Statements and Related Auditor's Report for the Fiscal Year ended June 30, 2018, as rendered by KPMG LLP⁽¹⁾

(1) This Appendix comprises the District's Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018. In order to preserve cross-references within such pages, this Appendix has not been repaginated and, accordingly, retains the original pagination.

APPENDIX B

CERTAIN DEFINITIONS

The following is a brief summary of certain definitions of certain terms contained in the Trust Agreement and the Seventh Supplemental Trust Agreement and used in this Official Statement. This summary does not purport to be complete or definitive and qualified in its entirety by reference to the Trust Agreement and the Seventh Supplemental Trust Agreement, copies of which are available for examination at the offices of the Trustee.

“Additional Bonds” means Bonds, if any, issued by the District, subsequent to the issuance of the Subordinate 2011 Bonds, pursuant to the Trust Agreement, including Additional Bonds issued in exchange for other such Additional Bonds or in replacement for mutilated, destroyed, stolen or lost Additional Bonds.

“Audited Financial Statements” means the annual financial statements of the District as audited and reported on by a firm of independent public accountants, for a twelve-month period constituting a Fiscal Year or other period indicated, prepared in accordance with generally accepted accounting principles.

“Balloon Long-Term Indebtedness” means Long-Term Indebtedness 25% or more of the principal payments of which is due in a single year, which portion of the principal is not required by the documents pursuant to which such Indebtedness is issued to be amortized by redemption prior to such date.

“Bond Registrar” means the Bond Registrar at the time serving as such under the Trust Agreement whether the original or a successor bond registrar.

“Bonds” means, the Subordinate 2012 Bonds, the Subordinate 2016 Bonds, the Subordinate 2017 Bonds, the Subordinate 2018 Bonds, the Series 2019A Bonds, and any Additional Bonds under the Trust Agreement, including such Bonds issued in exchange for other such Bonds and Bonds issued in replacement for and upon the cancellation of mutilated Bonds or in lieu of and in substitution for destroyed, stolen or lost Bonds.

“Capital Appreciation Bonds” means Bonds the interest on which is compounded at the rates and on the dates set forth in the Series Agreement authorizing the issuance of such Bonds and is payable upon redemption or on the maturity date of such Bonds. Nothing in the Trust Agreement prohibits the District from designating in such Series Agreement any such Bonds by a name other than Capital Appreciation Bonds.

“Coincidental Maximum Annual Debt Service” means the highest amount of debt service due and payable on the Senior Obligations and Parity Obligations in the then-current or any succeeding Fiscal Year. For purposes of this definition, debt service due and payable on the Senior Obligations for any Fiscal Year is to be determined by reference to the Principal and Interest Requirements (as defined in the Senior Trust Agreement) and debt service due and payable on Parity Obligations for any Fiscal Year is to be determined by reference to the Principal and Interest Requirements (as defined in the Trust Agreement).

“Commission” means the Hampton Roads Sanitation District Commission, which is the governing body of the District.

“Contracted Services” means services rendered or facilities provided to the District for the performance for or on behalf of the District of functions similar to those performed by the District from a specific project, projects or systems, pursuant to a contract, whether a financing lease, a service agreement or another arrangement.

“Credit Facility” means a line of credit, letter of credit, standby bond purchase agreement or similar credit enhancement or liquidity facility, including self-liquidity provided by the District, established to provide credit or liquidity support for Indebtedness.

“Cross-over Date” means, with respect to Cross-over Refunding Indebtedness, the date on which the principal portion of the related Cross-over Refunded Indebtedness is to be paid or redeemed from the proceeds of such Cross-over Refunding Indebtedness.

“Cross-over Refunded Indebtedness” means Indebtedness refunded by Cross-over Refunding Indebtedness.

“Cross-over Refunding Indebtedness” means Indebtedness issued for the purpose of refunding other Indebtedness if the proceeds of such refunding Indebtedness are irrevocably deposited in escrow to secure the payment on the applicable redemption date or maturity date of the refunded Indebtedness, and the earnings on such escrow deposit (i) are required to be applied to pay interest on such Refunding Indebtedness until the Cross-over Date and (ii) are not to be used directly or indirectly to pay interest on the Refunded Indebtedness.

“Current Interest Bonds” means Bonds the interest on which is payable on the Interest Payment Dates provided therefor in the Series Agreement authorizing the issuance of such Bonds.

“Debt Service Component of Contracted Services” means that part of the payment for Contracted Services for which the District is obligated to pay that the chief financial officer of the District shall have determined in writing in an Officer’s Certificate at the time the District commits to receive such Contracted Services to be for the purpose of paying a fixed charge or the principal of and interest on obligations, directly or indirectly associated with rendering the Contracted Services, of the person providing the Contracted Services.

“Debt Service Reserve Fund” means the Hampton Roads Sanitation District (Virginia) Subordinate Wastewater Revenue Bonds 2011 Trust Agreement Debt Service Reserve Fund created and so designated by the Trust Agreement.

“Debt Service Reserve Fund Requirement” means (i) on the date of issuance of the Series 2019A Bonds, zero (0) and (ii) if, and to the extent, the District in its sole discretion determines to fund the Debt Service Reserve Fund, the Debt Service Reserve Fund Requirement specified in a Series Agreement.

“Defaulted Interest” means any interest on any Bond which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date.

“Defeasance Obligations” means, except as otherwise provided in a Series Agreement, noncallable (i) Government Obligations, (ii) Obligations issued or guaranteed by any of the following: (1) Federal Home Loan Bank System, (2) Export-Import Bank of the United States, (3) Federal Financing Bank, (4) Government National Mortgage Association, (5) Federal Home Loan Mortgage Company, (6) Federal Housing Administration, (7) Private Export Funding Corp., (8) Federal National Mortgage Association, (9) Federal Farm Credit Bank, (10) Resolution Funding Corporation, and (11) Rural

Economic Community Development Administration (formerly, Farmers Home Administration), (iii) evidences of ownership of a proportionate interest in specified Government Obligations, which Government Obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity of custodian, (iv) obligations issued pursuant to Section 21B(d)(3) of the Federal Home Loan Bank Act, as amended by Section 511(a) of the Financial Institutions Reform, Recovery and Enforcement Act of 1989, and commonly known as “interest strips” of the Resolution Funding Corporation, (v) Defeased Municipal Obligations, and (vi) evidences of ownership of a proportionate interest in specified Defeased Municipal Obligations, which Defeased Municipal Obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity as custodian.

“Defeased Municipal Obligations” means, except as otherwise provided in a Series Agreement, obligations of state or local government municipal bond issuers which are rated at the time of acquisition the highest rating by at least two of the three Rating Agencies, meeting the following conditions:

- (i) (A) such obligations are not to be redeemed prior to maturity or the Trustee has been given irrevocable instructions concerning their call for redemption, and (B) the issuer of such obligations has covenanted not to redeem such obligations other than as set forth in such instructions;
- (ii) such obligations are secured by Government Obligations that may be applied only to interest, principal, and premium payments on such obligations;
- (iii) the principal of and interest on such Government Obligations (plus any cash in the escrow fund with respect to such pre-refunded obligations) are sufficient to meet the liabilities of the obligations;
- (iv) the Government Obligations serving as security for the obligations are held by an escrow agent or trustee; and
- (v) such Government Obligations are not available to satisfy any other claims, including those against the trustee or escrow agent.

“Derivative Agreement” means, without limitation, (i) any contract known as or referred to or which performs the function of an interest rate swap agreement, forward payment conversion agreement or futures contract; (ii) any contract providing for payments based on levels of, or changes or differences in, interest rates or other indices; (iii) any contract to exchange cash flows or payments or series of payments; (iv) any type of contract called, or designed to perform the function of, interest rate floors or caps, options, puts or calls, to hedge or minimize any type of financial risk, including, without limitation, payment, rate or other financial risk; and (v) any other type of contract or arrangement that the District determines is to be used, or is intended to be used, to manage or reduce the cost of Indebtedness, to convert any element of Indebtedness from one form to another or to protect against any type of financial risk or uncertainty.

“Derivative Agreement Counterparty” means, with respect to a Derivative Agreement, the person that is identified in such agreement as the counterparty to, or contracting party with, the District.

“Derivative Indebtedness” means all or any portion of Indebtedness of the District, which bears interest at

(a) a variable rate for any period of time meeting the following requirements: (i) the District has issued or entered into a Derivative Agreement in respect of all or such portion of such Indebtedness, and (ii) such Derivative Agreement provides that, during the period that such Indebtedness bears interest at a variable rate, the District will pay a fixed rate and the provider of the Derivative Agreement will pay a variable rate, then in such case such Indebtedness, taken together with the Derivative Agreement, is to be deemed to result in a net fixed rate payable by the District for such period of time (the “Hedged Fixed Rate”), for so long as the District and the party with whom the District has entered into the Derivative Agreement makes all payments required to be made by the terms of the Derivative Agreement, or

(b) a fixed rate for any period of time meeting the following requirements: (i) the District has issued or entered into a Derivative Agreement in respect of all or such portion of such Indebtedness, and (ii) such Derivative Agreement provides that during the period that such Indebtedness bears interest at a fixed rate the District will pay a variable rate and the provider of the Derivative Agreement will pay a fixed rate, then such Indebtedness, taken together with the Derivative Agreement, is to be deemed to result in a net variable rate payable by the District for such period of time (the “Hedged Variable Rate”), assuming the District and the party with whom the District has entered into the Derivative Agreement make all payments required to be made by the terms of the Derivative Agreement.

“**Designated Office**” of the Trustee means the designated office of the Trustee, which office at the date of acceptance by the Trustee of the duties and obligations imposed on the Trustee by the Seventh Supplemental Trust Agreement is located at 500 Ross Street, 12th Floor, Pittsburgh, Pennsylvania 15262.

“**District**” means the Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia.

“**District Representative**” means each of the persons at the time designated to act on behalf of the District in a written certificate furnished to the Trustee, which certificate is to contain the specimen signature(s) of such person(s) and is to signed on behalf of the Commission by its Chairman or Vice Chairman or the General Manager of the District.

“**Financial Statements**” means the unaudited financial statements of the District for the Fiscal Year or other period indicated, pro forma or otherwise, and containing the same financial information as the Audited Financial Statements.

“**Fiscal Year**” means the twelve-month period beginning on July 1 of one calendar year and ending on June 30 of the following calendar year or such other twelve-month period designated by the Commission.

“**Government Obligations**” means direct obligations of, or obligations the payment of principal of and interest on which are fully and unconditionally guaranteed by, the United States of America.

“**Hedged Fixed Rate**” means Hedged Fixed Rate as defined in the definition of Derivative Indebtedness.

“**Hedged Variable Rate**” means Hedged Variable Rate as defined in the definition of Derivative Indebtedness.

“**Holder**” means an owner of any Obligation issued in other than bearer form.

“Indebtedness” means (i) all indebtedness of the District for borrowed money, (ii) all installment sales, conditional sales and capital lease obligations incurred or assumed by the District, and (iii) the Debt Service Component of Contracted Services.

“Independent Consultant” means a firm or firms which are not, and no member, stockholder, director, officer, trustee or employee of which is, an officer, director, trustee or employee of the District, and which is a professional management or engineering consultant of national repute for having the skill and experience necessary to render the particular report required by the provision of the Trust Agreement in which such requirement appears.

“Independent Insurance Consultant” means a firm or person selected by the District, who is not an officer, director, trustee or employee of the District, and which or who is qualified to survey risks and to recommend insurance coverage for wastewater treatment systems and organizations engaged in such operations and is selected by the District.

“Interest Payment Date” means each date described as such in a Series Agreement, and, for the Series 2019A Bonds, means each February 1 or August 1, as the case may be, beginning February 1, 2020.

“Interest Requirements” for any Fiscal Year means the amount that is required to pay interest on all Outstanding Parity Obligations.

“Investment Obligations” means any and all investment obligations authorized by (A) the Investment of Public Funds Act, being Section 2.2-4500 *et seq.*, Code of Virginia, 1950, as amended, (B) the Government Non-Arbitrage Investment Act, being Section 2.2-4700 *et seq.*, Code of Virginia, 1950, as amended, and (C) successor statutes to those described in (A) and (B) above, as the same may be from time to time amended.

“Issuance Costs” means all issuance costs incurred in connection with the Bonds. Examples of such issuance costs include, but are not limited to, the following, if any: (a) counsel fees; (b) financial advisor fees incurred in connection with the issuance of the Bonds; (c) Rating Agency fees; (d) depository fees incurred in connection with the issuance of the Bonds; (e) trustee, paying agent and certifying and authenticating agent fees related to the issuance of the Bonds; (f) accountant fees related to the issuance of the Bonds; (g) printing costs; (h) costs incurred in connection with the required public approval process; and (i) costs of engineering and feasibility studies necessary to the issuance of the Bonds.

“Junior Obligations” means Indebtedness of the District the terms of which shall provide that it will be subordinate and junior in right of payment to the prior payment in full of the Senior Obligations and the Parity Obligations to the extent and in the manner set forth below:

In the event (a) of any insolvency or bankruptcy proceedings, and any receivership, liquidation, reorganization, arrangement or other similar proceedings in connection therewith, relative to the District or to its Property, or in the event of any proceedings for voluntary liquidation, dissolution or other winding-up of the District whether or not involving insolvency or bankruptcy, (b) any Junior Obligation is declared or otherwise becomes due and payable before its expressed maturity because of the occurrence of an event of default occurring under the documents pursuant to which such Junior Obligation is issued; and such declaration has not been rescinded and annulled, or (c) any “Event of Default” (as defined in the Senior Trust Agreement) under the Senior Trust Agreement shall occur and be continuing with respect to any Senior Obligation or any Event of Default under the Trust Agreement shall occur and be continuing with respect to any Parity Obligation and (1) written notice of such default shall have been given to the District and (2) judicial proceedings shall be commenced in respect of such Event of Default within 180

days in the case of a default in payment of principal or interest on Senior Obligations or Parity Obligations and within 90 days in the case of any other default after the giving of such notice, then, first, the Holders of Senior Obligations shall be entitled to receive payment in full of all principal, premium and interest on all Senior Obligations before the Holders of the Parity Obligation are entitled to receive any payment on account of principal or interest upon the Parity Obligations and, second, the Holders of Parity Obligations shall be entitled to receive payment in full of all principal, premium and interest on all Parity Obligations before the Holders of the Junior Obligations are entitled to receive any payment on account of principal, premium or interest upon the Junior Obligations.

“Lien” means any mortgage, deed of trust or pledge of, security interest in or encumbrance on any Property of the District which secures any Indebtedness or any other obligation of the District.

“Long-Term Debt Service Coverage Ratio” means, for any period of time, the ratio determined by dividing the Net Revenues by Coincidental Maximum Annual Debt Service.

“Long-Term Debt Service Requirement” means, for any period of 12 consecutive calendar months for which such determination is made, the aggregate of the payments to be made in respect of principal and interest (whether or not separately stated) on Outstanding Long-Term Indebtedness during such period, also taking into account:

(i) with respect to Balloon Long-Term Indebtedness that is not amortized by the terms thereof (a) the amount of principal that would be payable in such period if such principal were amortized from the date of incurrence thereof over a period of the lesser of 30 years and the number of years until the final maturity of such Indebtedness on a level debt service basis, at an interest rate equal to the market rate for a fixed rate obligation set forth in an opinion, delivered to the District and the Trustee, of a banking institution, an investment banking institution or an independent registered municipal advisor, selected by the District and knowledgeable in municipal finance, as the interest rate at which the District could reasonably expect to borrow the same by incurring Indebtedness with the same term as the period assumed above; provided, however, that if the date of calculation is within 12 calendar months of the actual final maturity of such Indebtedness, the full amount of principal payable at maturity is to be included in such calculation or (b) principal payments or deposits with respect to Indebtedness secured by an irrevocable letter of credit issued by, or an irrevocable line of credit with, a bank or other financial institution, provided such credit arrangement is rated in one of the three highest rating categories by at least two of the Rating Agencies or rated in the highest short-term rating category by at least two of the Rating Agencies, nominally due in the last Fiscal Year in which such Indebtedness matures may, at the option of the District, be treated as if such principal payments or deposits were due as specified in any credit agreement issued in connection with such letter of credit, line of credit or insurance policy or pursuant to the repayment provisions of such letter of credit, line of credit or insurance policy, and interest on such Indebtedness after such Fiscal Year is to be assumed to be payable pursuant to the terms of such credit agreement or repayment provisions;

(ii) with respect to Long-Term Indebtedness which is Variable Rate (but not Hedged Fixed Rate) Indebtedness, the interest on such Indebtedness is to be calculated at 120% of the rate which is equal to the average of the actual interest rates which were in effect (weighted according to the length of the period during which each such interest rate was in effect) for the most recent twelve-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a twelve-month period), except that with respect to new Variable Rate Indebtedness the interest rate for such Indebtedness for the

initial interest rate period is 120% of the average of the SIFMA Swap Index for last 12 whole months for which such Index is available and thereafter will be calculated as set forth above;

(iii) with respect to any Credit Facility, (a) to the extent that such Credit Facility has not been used or drawn upon, the principal and interest relating to such Credit Facility will not be included in the Long-Term Debt Service Requirement and (b) to the extent such Credit Facility has been drawn upon, the payment provisions of such Credit Facility with respect to repayment of principal and interest thereon will be included in the Long-Term Debt Service Requirement;

(iv) with respect to Derivative Indebtedness, (i) for any historical computation, the interest on such Indebtedness is to be calculated by adding (A) the amount of interest payable by the District on such Derivative Indebtedness pursuant to its terms and (B) the amount of regularly scheduled payments made by the District pursuant to the Derivative Agreement and subtracting (C) the amount of regularly scheduled payments made by the Derivative Agreement Counterparty pursuant to the Derivative Agreement; (ii) for any historical pro forma or forecasted computation, if the Derivative Agreement Counterparty has a long-term credit rating of at least “A” (without regard to any rating refinement or gradation by numerical modifier or otherwise) assigned to it by at least one Rating Agency then rating the Indebtedness and does not have a long-term rating of less than “A” (without regard to any rating refinement or gradation by numerical modifier or otherwise) from any Rating Agency then rating the Indebtedness and has not defaulted on its payment obligations thereunder as of the date of computation, the interest on such Derivative Indebtedness is to be calculated at the Hedged Fixed Rate or the Hedged Variable Rate, as the case may be; and (iii) in all other instances, the amount of interest payable by the District on such Derivative Indebtedness is to be calculated as if such Derivative Agreement had not been executed; and

(v) in the case of Indebtedness having the benefit of a Credit Facility that provides for a term loan facility that requires the payment of the principal in one year or more, the Indebtedness is to be considered Balloon Long-Term Indebtedness and is to be assumed to have the maturity schedule described in paragraph (i)(a) of this definition;

provided, however, that (i) interest is to be excluded from the determination of Long-Term Debt Service Requirement to the extent the same is provided from the proceeds of the Long-Term Indebtedness, (ii) the aggregate of the payments to be made with respect to principal and interest on Outstanding Long-Term Indebtedness will not include principal and interest payable from Qualified Escrow Funds, and (iii) principal is to be excluded from the determination of Long-Term Debt Service Requirement on Short-Term Indebtedness described in paragraph (c) under the caption “—Limitations on Indebtedness in Appendix C.

“Long-Term Indebtedness” means all obligations having a maturity of a term longer than one year for borrowed money incurred or assumed by the District, including (a) Short-Term Indebtedness if secured by a Credit Facility containing a commitment to provide financing to retire such Short-Term Indebtedness and such commitment provides for the repayment of principal on terms which would, if such commitment were implemented, constitute Long-Term Indebtedness, and (b) the current portion of Long-Term Indebtedness, for any of the following:

(1) money borrowed for an original term, or renewable at the option of the borrower for a period from the date originally incurred, longer than one year;

(2) leases which are required to be capitalized in accordance with generally accepted accounting principles having an original term, or renewable at the option of the lessee for a period from the date originally incurred, longer than one year;

(3) installment sale or conditional sale contracts having an original term in excess of one year; and

(4) the Debt Service Component of Contracted Services in connection with Contracted Services rendered or provided pursuant to a contract having an original term of more than one year.

“Maximum Annual Debt Service” means, at any given time of determination, the greatest Long-Term Debt Service Requirement for the then current or any succeeding Fiscal Year.

“Maximum Annual Debt Service on the Parity Obligations” means, at any given time of determination, the maximum coincidental Principal and Interest Requirements for the Parity Obligations for the then-current or any succeeding Fiscal Year.

“Net Book Value” when used in connection with Property, Plant and Equipment or other Property, means the value of such property, net of accumulated depreciation, as recognized by the District in conformity with generally accepted accounting principles.

“Net Revenues” means all revenues received by the District from its Wastewater System less Operating Expenses, provided that Net Revenues will not include any Transition Charge.

“Net Revenues Available for Debt Service” means all Net Revenues less debt service on Senior Obligations.

“Officer’s Certificate” means a certificate signed by a District Representative. Each Officer’s Certificate presented pursuant to the Trust Agreement is to state that it is being delivered pursuant to (and is to identify the section or subsection of), and incorporate by reference and use in all appropriate instances all terms defined in, the Trust Agreement. Each Officer’s Certificate is to state (i) that the terms thereof are in compliance with the requirements of the section or subsection pursuant to which such Officer’s Certificate is delivered or to state in reasonable detail the nature of any non-compliance and the steps being taken to remedy such non-compliance and (ii) that it is being delivered together with any opinions, schedules, statements or other documents required in connection therewith.

“Operating Expenses” means those current expenses paid by the District that may be 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 excludes allowance for depreciation and amortization and expenditures for extraordinary maintenance or repair or improvements. Operating Expenses also excludes expenses for improvements that will not be owned by the District but that will, in the reasonable determination of the Commission, as evidenced by a resolution thereof, maintain or improve the integrity of the Wastewater System.

“Opinion of Bond Counsel” means an opinion in writing signed by an attorney or firm of attorneys acceptable to the Trustee and experienced in the field of municipal bonds whose opinions are generally accepted by purchasers of municipal bonds.

“Opinion of Counsel” means an opinion in writing signed by an attorney or firm of attorneys who may be counsel for the District or other counsel selected by the District.

“Outstanding,” when used with reference to Bonds or other Parity Obligations, means, as of a particular date, all Bonds and Parity Obligations theretofore issued under the Trust Agreement, except:

(1) Bonds and Parity Obligations theretofore cancelled by the Bond Registrar or delivered to the Bond Registrar for cancellation;

(2) Bonds and Parity Obligations for the payment of which money, Defeasance Obligations, or a combination of both, sufficient to pay, on the date when such Bonds are to be paid, the principal amount of, and the interest accruing to such date on, the Bonds to be paid, has been deposited with the Trustee or the Bond Registrar in trust for the Holders of such Bonds; Defeasance Obligations shall be deemed to be sufficient to pay Bonds on a specified date if the principal of and the interest on such Defeasance Obligations, when due, will be sufficient to pay on such date the principal of, and the interest accruing on, such Bonds to such date;

(3) Bonds and Parity Obligations in exchange for or in lieu of which other Bonds or Parity Obligations have been issued; and

(4) Bonds and Parity Obligations deemed to have been paid in accordance with the provisions for defeasance contained in such Bonds or Parity Obligations (See “—Defeasance” in Appendix C);

provided, however, that Bonds and Parity Obligations owned or held by or for the account of the District or any affiliate or any subsidiary or controlled affiliate of the District shall not be deemed Outstanding Bonds or Outstanding Parity Obligations for the purpose of any consent or other action or any calculation of Outstanding Bonds or Outstanding Parity Obligations provided for in the articles of the Trust Agreement relating to default and remedies, Supplemental Agreements and release of the Trust Agreement, and neither the District nor any affiliate, subsidiary or controlled affiliate of the District as registered owners of such Bonds or Parity Obligations shall be entitled to consent or take any other action provided for in default and remedies, Supplemental Agreements and release of the Trust Agreement. Notwithstanding the foregoing, Bonds or Parity Obligations owned or held for the account of the District or an or any affiliate or any subsidiary or controlled affiliate of the District shall not be deemed to be paid unless the District delivers, or causes such Bonds or Parity Obligations to be delivered, to the Trustee with the express written instructions of a District Representative directing the Trustee to cancel such Bonds in accordance with the procedures set forth in the Trust Agreement.

“Parity Obligations” means Bonds and VRA Subordinate Obligations.

“Principal and Interest Requirements” for any Fiscal Year means the sum of the Principal Requirements and Interest Requirements for such Fiscal Year.

“Principal Payment Date” means each date described as such in a Series Agreement.

“Principal Requirements” for any Fiscal Year means the amount required to pay the principal of all Parity Obligations coming due in such Fiscal Year.

“Property” means any and all rights, titles and interests in and to any and all property whether real or personal, tangible or intangible and wherever situated.

“Property, Plant and Equipment” means all Property of the District which is property, plant and equipment under generally accepted accounting principles.

“Qualified Escrow Funds” means amounts deposited in a segregated escrow fund, or other similar fund or account, in connection with the issuance of Indebtedness which fund is required by the documents establishing such fund to be applied toward the District’s payment obligations with respect to principal or interest on (a) the Indebtedness secured thereby which is issued under the documents establishing such fund or (b) Indebtedness secured thereby which was issued prior to the establishment of such fund.

“Qualified Reserve Fund Substitute” means (i) an irrevocable letter of credit, naming the Trustee as beneficiary, issued by any domestic or foreign bank, or any branch or agency thereof, whose long-term debt obligations are rated in one of the two highest rating categories by at least two of the Rating Agencies that will rate such obligations, or (ii) a policy of reserve fund insurance naming the Trustee as beneficiary, issued by an insurance company or financial institution whose claims paying ability is rated in one of the two highest rating categories by at least two of the Rating Agencies that rate such obligations, in either case (A) in an amount not less than the Debt Service Reserve Fund Requirement, (B) the terms of which allow the Trustee to make the draws required to fund the Debt Service Reserve Fund if and as required (See “—Debt Service Reserve Fund; Qualified Reserve Fund Substitute” in Appendix C) and (C) that provides that the issuer of which has not been given a lien on any portion of the property of the District unless such lien also secures the Bonds on a parity basis.

“Rate Covenant” means the rate covenant of the District set out in the Trust Agreement and described under the caption “—Rate Covenant” in Appendix C hereto.

“Rating Agency” or **“Rating Agencies”** means one or more of Fitch, Moody’s or Standard & Poor’s for so long as it is a nationally recognized statistical rating organization and any new nationally recognized statistical rating organization.

“Senior Bonds” has the meaning given the term “Bonds” by the Senior Trust Agreement.

“Senior Debt Service Reserve Fund” means the Hampton Roads Sanitation District (Virginia) Wastewater Revenue Bonds Debt Service Reserve Fund created and so designated by the Senior Trust Agreement.

“Senior Indebtedness” means Indebtedness secured on a parity with the Senior Bonds under the terms of the Senior Trust Agreement.

“Senior Obligations” means, collectively, Senior Bonds and Senior Indebtedness, and, if the District is required to fund the Senior Debt Service Reserve Fund pursuant to the terms of the Senior Trust Agreement, the District’s funding obligations thereunder.

“Senior Trust Agreement” means that certain trust agreement, dated as of March 1, 2008, as the same may be supplemented and amended from time to time, between the District and The Bank of New York Mellon Trust Company, N.A., as successor Trustee (in such capacity, the **“Senior Trustee”**).

“Series Agreement” means a supplemental trust agreement entered into or the resolution adopted by the Commission providing for the issuance of Bonds or Parity Obligations pursuant to the Trust

Agreement. A Series Agreement will include any Officer's Certificate delivered by a District Representative or Representatives to whom authority has been delegated by the terms of the Series Agreement to provide the details of such Bonds and, for purposes of additional VRA Subordinate Obligations, a Series Agreement will include such resolutions adopted by the Commission or financing agreements authorized thereby specifying the details of such additional VRA Subordinate Obligations.

"Short-Term Indebtedness" means all obligations for borrowed money, other than the current portion of Long-Term Indebtedness, incurred or assumed by the District for any of the following:

- (1) money borrowed for an original term, or renewable at the option of the borrower for a period from the date originally incurred, of one year or less;
- (2) leases which are capitalized in accordance with generally accepted accounting principles having an original term, or renewable at the option of the lessee for a period from the date originally incurred, of one year or less; and
- (3) installment purchase or conditional sale contracts having an original term of one year or less.

"SIFMA Swap Index" means The Securities Industry and Financial Market Association Municipal Swap Index as of the most recent date for which such index was published or such other weekly, high-grade index comprised of seven-day, Tax-Exempt variable rate demand notes published by Bloomberg, or its successor, or otherwise designated by The Securities Industry and Financial Market Association; provided, however, that, if such index is no longer available or its successor, the "SIFMA Swap Index" will mean such other reasonably comparable index selected by the remarketing agent appointed by the District in connection with Variable Rate Indebtedness.

"Supplement" means an agreement, including a Series Agreement, supplemental to, and authorized and executed pursuant to the terms of, the Trust Agreement.

"Tax-Exempt" with reference to Bonds or other Parity Obligations means any Bonds or Parity Obligations so designated in the related Series Agreement.

"Tax Certificate" means a certificate or comparable instrument of the District that contains undertakings of the District with reference to Tax-Exempt Parity Obligations.

"Total Operating Revenues" means, with respect to the District, as to any period of time, as total operating revenues as determined in accordance with generally accepted accounting principles.

"Transition Charge" means any rates, fees, charges or surcharges relating to the Wastewater System or the customers thereof established by irrevocable rate order or other action or instrument, and applicable to or by the District, in conjunction with the issuance of debt or other securities under a separate resolution, indenture or similar instrument (other than the Senior Trust Agreement, the Trust Agreement or other instrument securing Indebtedness secured by revenues of the Wastewater System) to the extent such rates, fees, charges or surcharges are pledged or otherwise encumbered or conveyed as security for such debt or other securities.

"Trust Agreement" means the trust agreement entered into by and between Hampton Roads Sanitation District and The Bank of New York Mellon Trust Company, N.A., as Trustee, dated as of October 1, 2011, as amended and restated as of March 1, 2016, including any Series Agreement and any other trust agreement amendatory thereto or supplemental thereto.

“Variable Rate Indebtedness” means any portion of Indebtedness the interest rate on which is not established at the time of incurrence at a fixed or constant rate until maturity.

“VRA Subordinate Obligations” means the District’s VRA Subordinate Obligations or other evidences of indebtedness heretofore issued, and such additional Parity Obligations issued to VRA payable on a parity with Parity Obligations issued pursuant to the Trust Agreement.

“Wastewater System” means the wastewater treatment system of the District as it may exist at any time and includes all improvements and expansions thereof and additions thereto except as may otherwise be provided by resolution of the Commission.

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT

The following is a brief summary of certain provisions of the Trust Agreement. This summary does not purport to be complete or definitive and qualified in its entirety by reference to the Trust Agreement, a copy of which is available for examination at the offices of the Trustee.

Establishment of Funds

The Trust Agreement provides for an Issuance Fund, a Construction Fund, a Bond Fund, and a Debt Service Reserve Fund. It requires that the money and securities in each Fund be held in trust by the Trustee and applied as provided in the Trust Agreement, and pending such application be subject to a lien and charge in favor of the Holders and for the further security of the Holders until paid or transferred pursuant to the Trust Agreement.

Issuance Fund and Construction Fund

The Trust Agreement also requires that money in the Issuance Fund be applied to the payment of Issuance Costs incurred in connection with the issuance of the Bonds, to be financed from Bonds proceeds. Money in the Construction Fund will be applied to Capital Improvement Program Costs. Unexpended fund balances in the Issuance Fund and the Construction Fund will be applied as provided in the applicable Series Agreement. The Series Agreement for the Series 2019A Bonds provides any such unexpended fund balances are to be applied as directed by the District.

The District may, in any Series Agreement, create Subfunds within the Issuance Fund and the Construction Fund.

Bond Fund

The District will make payments directly to the Trustee for deposit in the Bond Fund in amounts sufficient to pay in full, when due, all Bonds issued under the Trust Agreement, together with the interest thereon. In the event the balance in the Bond Fund is insufficient for such purposes, upon notification by the Trustee, the District is to deliver to the Trustee an amount sufficient to cure the same. If such amount is insufficient, the Trustee is required to transfer to the Bond Fund the amount necessary to remedy the deficiency from the Debt Service Reserve Fund. Each such payment shall be made only in the event and to the extent that, as of the date of such payment, the District shall have paid to the Senior Trustee for the account of the Senior Bond Fund all amounts attributable to the principal of and interest on any outstanding Senior Obligations due and owing thereon, plus any amounts required to be deposited to the credit of the Senior Debt Service Reserve Fund in accordance with the terms of the Senior Trust Agreement, as of such date.

Debt Service Reserve Fund; Qualified Reserve Fund Substitute

No funds will be deposited to the credit of the Debt Service Reserve Fund upon the delivery of the Series 2019A Bonds. If the District elects to fund the Debt Service Reserve Fund, then an amount equal to the Debt Service Reserve Fund Requirement, as the same shall be specified in a Supplemental Agreement, shall be deposited to the Debt Service Reserve Fund Requirement.

The Trustee will use amounts in the Debt Service Reserve Fund to make transfers to the Bond Fund to the extent necessary to pay interest on and principal of the Bonds, whenever and to the extent that

the money on deposit in the Bond Fund is insufficient for such purposes and the District has failed to cure such deficiency.

The District may, at any time, deliver to the Trustee a Qualified Reserve Fund Substitute. In such event, if the District also delivers to the Trustee a written statement setting forth the use of the cash and Investment Obligations then on deposit to the credit of the Debt Service Reserve Fund, accompanied by an Opinion of Bond Counsel to the District, addressed to the Trustee, to the effect that such proposed use will not cause the interest on the Tax-Exempt Bonds to be includable in the gross income of the owners thereof for purposes of federal income taxation, the Trustee is to transfer to the District all amounts on deposit to the credit of the Debt Service Reserve Fund. If any Qualified Reserve Fund Substitute is in effect, the Trustee is to give such notices and execute such documents as required to assure that funds (i) are available in such amounts and at such times to assure timely payment of principal of and interest on the Bonds and (ii) are drawn to fund the Debt Service Reserve Fund in an amount equal to the Debt Service Reserve Fund Requirement at least six months prior to the expiration date of the Qualified Reserve Fund Substitute unless (a) the Trustee has received a substitute Qualified Reserve Fund Substitute to replace such expiring Qualified Reserve Fund Substitute or (b) the expiration date of the expiring Qualified Reserve Fund Substitute is no earlier than the final stated maturity date of the Bonds.

Payment of Principal and Interest

The District will cause to be paid, when due, the principal of (whether at maturity, by acceleration or otherwise) and interest on the Bonds at the places, on the dates and in the manner provided in the Trust Agreement and in said Bonds; provided that it is understood that the Bonds are not general obligations of the District but are special obligations and are payable solely from Net Revenues Available for Debt Service derived by the District from its Wastewater System and the money attributable to proceeds of Bonds and the income from the investment thereof and not from any other fund or source. To secure the prompt payment of the principal of, redemption premium, if any, and the interest on the Senior Obligations and the performance by the District of its other obligations under the Trust Agreement, the District grants to the Trustee a security interest in its Net Revenues Available for Debt Service.

Investment of Money

Money held for the credit of all funds and accounts created under the Trust Agreement is to be continuously invested and reinvested by the Trustee in Investment Obligations, to the extent practicable in accordance with the instructions of a District Representative, subject to the yield restrictions set forth in the Tax Certificate. The Trust Agreement requires that any Investment Obligations mature not later than the respective dates when the money held for the credit of such funds or accounts will be required for the purposes intended; provided, however, that Investment Obligations deposited in the Debt Service Reserve Fund mature no later than the final maturity date of the Bonds secured by the Debt Service Reserve Fund.

Unless a Qualified Reserve Fund Substitute is in effect, the District is to reimburse the Debt Service Reserve Fund for any loss resulting from a decline in the value of Investment Obligations in which money held for the credit of the Debt Service Reserve Fund is invested if on any date of valuation the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve Fund Requirement.

Investment Obligations acquired with money and credited to any fund or account established under the Trust Agreement are required to be held by or under the control of the Trustee and will be deemed at all times to be part of such fund or account in which such money was originally held. Interest accruing on such Investment Obligation and any profit or loss realized upon the disposition or maturity of such investment will be credited to or charged against such fund or account. The Trustee is required to

sell at the best price attainable or reduce to cash a sufficient amount of such Investment Obligations whenever it is necessary to provide money to make any payment or transfer of money from any such fund or account. The Trustee will not be liable or responsible for any loss resulting from any such investment.

Valuation

For the purpose of determining the amount on deposit in any fund or account, Investment Obligations in which money in such fund or account is invested are to be valued (a) if such Investment Obligations mature, or are subject to redemption at the option of the holder thereof, within five years or less from the date of valuation thereof, such Investment Obligations are to be valued at amortized cost, and (b) if such Investment Obligations mature, or are subject to redemption at the option of the holder thereof, more than five years from the date of valuation thereof, such Investment Obligations are to be valued at the market value or the amortized cost thereof, whichever is lower.

The Trustee will value the Investment Obligations in the funds and accounts five Business Days prior to each Interest Payment Date. In addition, subject to prior notice, the Investment Obligations will be valued by the Trustee at any time requested by the District Representative, but not more than once in any calendar month other than as provided in the Trust Agreement.

Limitations on Indebtedness

The District may issue Additional Bonds or incur other Parity Obligations, provided that, after giving effect to all other Indebtedness incurred by the District, such Additional Bonds or other Parity Obligations are incurred only in the manner and pursuant to the terms set forth below provided, however, that VRA Senior Obligations may become VRA Subordinate Obligations without limitation:

(a) Long-Term Indebtedness may be incurred if, prior to incurrence of the Long-Term Indebtedness, there is delivered to the Trustee:

(i) an Officer's Certificate of a District Representative certifying that the Long-Term Debt Service Coverage Ratio for the most recent period of twelve (12) full consecutive calendar months preceding the date of delivery of the certificate of the District Representative for which there are Financial Statements available, adjusted for revenues and expenses resulting from anticipated new customers and any planned program of rate increases that has been approved by the Commission, taking all Long-Term Indebtedness incurred after such period and the proposed Long-Term Indebtedness into account as if such Long-Term Indebtedness had been incurred at the beginning of such period, is not less than 120%;

(ii) an Officer's Certificate of a District Representative certifying that the District is expected to comply with the Rate Covenant set forth in the Trust Agreement for the five Fiscal Years following the date of issuance of the proposed Long-Term Indebtedness. Such certificate is to be accompanied by a statement of the relevant assumptions upon which such pro forma Financial Statements for the District are based, including but not limited to, adjustments to revenues and expenses resulting from anticipated new customers and any planned program of rate increases that has been approved by the Commission;

(iii) if the Long-Term Indebtedness is authorized for any purpose other than the refunding of the outstanding Senior Obligations or Outstanding Parity Obligations, an Officer's Certificate of a District Representative to the effect, and to the extent applicable, that in his or her opinion (a) the improvements or property to which the proceeds from the issuance of the Long-Term Indebtedness are to be applied will be a part of the Wastewater System, (b) the proceeds of

the Long-Term Indebtedness and other specified sources will be sufficient to pay the estimated cost of such improvements or property, (c) the period of time that will be required to complete such improvements or acquire such property, and (d)(1) the proceeds of the Long-Term Indebtedness are necessary to complete the project to be financed thereby, (2) the failure to make such improvements or acquire or construct such property will result in an interruption or reduction of Net Revenues, or (3) during the first two Fiscal Years following the completion of the improvements or the acquisition of the property, the projected Net Revenues will satisfy the Rate Covenant described below. In providing this certificate, the District Representative may take into consideration future Wastewater System rate increases, provided that such rate increases have been duly approved by the Commission and any other person and entity required to give approval for the rate increase to become effective. In addition, he or she may take into consideration additional future revenues of the Wastewater System to be derived under then existing contractual agreements entered into by the District and from reasonable estimates of growth in the customer base of the District; or

(iv) an Officer's Certificate of a District Representative certifying compliance with the Rate Covenant set forth in the Trust Agreement for the most recent period of 12 full consecutive calendar months for which there are Financial Statements available preceding the date of delivery of the certificate.

(b) Long-Term Indebtedness may be incurred for the purpose of refunding Outstanding Long-Term Indebtedness if, either (i) a certificate of an independent financial advisor to the effect that, the Long-Term Indebtedness issued to refund outstanding Senior Obligations or Outstanding Parity Obligations will have, in the aggregate, a lower Long-Term Debt Service Requirement than the Long-Term Debt Service Requirement on the Senior Obligations or Outstanding Parity Obligations to be refunded with the proceeds thereof, or (ii) an Officer's Certificate of a District Representative to the effect that during the first two complete Fiscal Years following the issuance of the refunding Long-Term Indebtedness, the projected Net Revenues will satisfy the Rate Covenant described under the heading "—Rate Covenant" below. In providing the certificate described in clause (b), the Officer's Certificate may take into account the factors described in the last two sentences of subsection (a)(iii) of this Section. In addition, the Trustee shall receive an Opinion of Counsel stating that upon the incurrence of such proposed Long-Term Indebtedness and application of the proceeds thereof (on the Cross-over Date, in the case of Cross-over Refunding Indebtedness), the Outstanding Long-Term Indebtedness to be refunded thereby will no longer be Outstanding.

(c) Short-Term Indebtedness may be incurred as a Parity Obligation subject to the same tests that apply to the incurrence of Parity Obligations generally; provided, however, that notwithstanding such limitation, the District may incur as a Parity Obligation from time to time and have outstanding at any one time Short-Term Indebtedness in an amount up to 10% of its Total Operating Revenues as reflected in the Financial Statements of the District for the most recent period of twelve consecutive months for which Financial Statements are available, and provided, further, that the District may incur Short-Term Indebtedness secured by a Credit Facility without limitation. Short-Term Indebtedness may be incurred as Junior Obligations without compliance with the tests that apply to the incurrence of Parity Obligations.

(d) Additional VRA Subordinate Obligations may be incurred by the District subject to the delivery of an Officer's Certificate of a District Representative demonstrating compliance with the incurrence test for the issuance of Long-Term Indebtedness described above in paragraphs (a) or (b) above and the Rate Covenant described below, *provided, however*, anything in the Trust Agreement notwithstanding, the District may make such additional covenants in a supplemental resolution, financing agreement or other agreement authorizing and securing a VRA Subordinate Obligations as may be required by VRA as a condition of selling such VRA Subordinate Obligations.

(e) Junior Obligations may be incurred without limitation.

(f) For purposes of demonstrating compliance with the incurrence test for the issuance of Long-Term Indebtedness described above in paragraph (a), the District may (but is not required to) elect in the applicable Series Agreement to treat all or any Parity Obligations authorized in a Credit Facility (including, for example and without limitation, a self-liquidity arrangement provided by the District, a line of credit or a liquidity facility supporting a commercial paper program), but not immediately issued or incurred under such Credit Facility, as subject to such incurrence test as of a single date, notwithstanding that none, or less than all, of the authorized principal amount of such Parity Obligations have been issued or incurred as of such date.

(g) Notwithstanding the foregoing provisions regarding limitations on Indebtedness described above, nothing contained in the Trust Agreement will preclude the District from incurring any obligation under a Credit Facility.

Rate Covenant

(a) The District has covenanted and agreed in the Trust Agreement that it will fix and collect rates, fees and other charges for the use of and for services furnished or to be furnished by the Wastewater System, and will from time to time revise such rates, fees and other charges so that in each Fiscal Year the Net Revenues will equal at least 120% of the sum of (a) the Principal and Interest Requirements (as defined in the Senior Trust Agreement on Senior Obligations and (b) the Principal and Interest Requirements. If, for any reason, the Net Revenues are insufficient to satisfy the foregoing covenant, the District shall within one hundred twenty (120) days adjust and increase its rates, fees and other charges (to the extent permitted by the Enabling Act), or reduce its operating and maintenance expenses so as to provide sufficient Net Revenues to satisfy such requirement.

(b) If at any time the District fails to comply with its Rate Covenant described in paragraph (a) above, the District is to immediately notify the Trustee, such notice also containing an Officer's Certificate of a District Representative as to (i) the amount of the deficiency in Net Revenues which existed for the applicable period and the rates, fees and other charges which must be established by the District to cure such deficiency, and (ii) during the Fiscal Year in which the certificate is delivered, the projected Net Revenues will satisfy the Rate Covenant made by the District and described in paragraph (a) above, or, if not, the rates, fees and other charges the District must establish to satisfy such rate covenant. In addition, the District agrees, to the extent permitted by law, to take appropriate action to increase its rates, fees and other charges or reduce its operating and maintenance expenses to cure any deficiency.

(c) On or before the last day of each Fiscal Year, the District will review the adequacy of its rates, fees and other charges for the next Fiscal Year, and, if such review indicates the District's rates, fees and other charges are insufficient to satisfy the Rate Covenant described in paragraph (a) above, the District is to promptly take appropriate action to increase its rates, fees and other charges or reduce its operating and maintenance expenses to cure any deficiency.

Limitation on Creation of Liens

The District agrees that it will not create or permit the existence of any Lien on its Property or upon its Net Revenues other than Permitted Liens.

"Permitted Liens" consist of the following:

(a) Liens arising by reason of good faith deposits with the District in connection with leases of real estate, bids or contracts (other than contracts for the payment of money), deposits by the District to secure public or statutory obligations, or to secure, or in lieu of, surety, stay or appeal bonds, and deposits as security for the payment of taxes or assessments or other similar charges;

(b) Any Lien arising by reason of deposits with, or the giving of any form of security to, any governmental agency or any body created or approved by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license, or to enable the District to maintain self-insurance or to participate in any funds established to cover any insurance risks or in connection with any workers' compensation, unemployment insurance, pension or profit sharing plans or other social security, or to share in the privileges or benefits required for companies participating in such arrangements;

(c) Any judgment lien against the District so long as such judgment is being contested in good faith and execution thereon is stayed;

(d) (i) Rights reserved to or vested in any municipality or public authority by the terms of any right, power, franchise, grant, license, permit or provision of law, affecting any Property; (ii) any liens on any Property for taxes, assessments, levies, fees, water and sewer rents, and other governmental and similar charges and any liens of mechanics, materialmen, laborers, suppliers or vendors for work or services performed or materials furnished in connection with such Property, which are not due and payable or which are not delinquent or which, or the amount or validity of which, are being contested and execution thereon is stayed or, with respect to liens of mechanics, materialmen, laborers, suppliers or vendors, have been due for less than 90 days; (iii) easements, rights-of-way, servitudes, restrictions, oil, gas or other mineral reservations and other minor defects, encumbrances, and irregularities in the title to any Property which do not materially impair the use of such Property or materially and adversely affect the value thereof; (iv) to the extent that it affects title to any Property, the Trust Agreement; and (v) landlord's liens;

(e) Any Lien that was existing on the date of authentication and delivery of the Series 2011 Bonds issued under the Trust Agreement; provided that no such Lien may be increased, extended, renewed or modified to apply to any Property of the District not subject to such Lien on such date or to secure Indebtedness not Outstanding on the date of issuance of the Series 2011 Bonds, unless such Lien as so extended, renewed or modified otherwise qualifies as a Permitted Lien under the Trust Agreement;

(f) Any lien on pledges, gifts or grants to be received in the future, including any income derived from the investment thereof;

(g) The Lien of the Senior Trust Agreement;

(h) Any Lien securing Parity Obligations on a parity basis;

(i) Any Liens on Property received by the District through gifts, grants or bequests, such liens being due to restrictions on such gifts, grants or bequests of Property or the income thereon;

(j) Any Lien on moveable equipment securing Indebtedness incurred to purchase such moveable equipment, provided that the total of such Indebtedness does not exceed 15% of

the Net Book Value of the Property, Plant and Equipment of the District as shown on the Financial Statements for the prior Fiscal Year; and

(k) Any Lien on Net Revenues securing Junior Indebtedness; provided that such lien is expressly subordinate and junior to the Lien on Net Revenues Available for Debt Service granted to the Trustee for the payment of principal of, redemption premium, if any, and the interest on the Parity Obligations and to secure the prompt payment of the and the performance by the District of its other obligations under the Trust Agreement.

Designation of Funds

No later than the last Business Day of each month, the District will specifically earmark cash, cash equivalents or marketable securities or any combination thereof in an amount equal to the interest on and the principal of Bonds that will accrue in the next month, taking into account any scheduled maturities of interest or principal scheduled to become due and payable in such month and the funds theretofore earmarked for such purpose. The District may assume that both interest and principal accrue daily from the prior payment date or date of issuance but not more than 12 months prior to a payment date.

Maintenance of Properties

The District covenants in the Trust Agreement:

(a) to cause its Property to be maintained, preserved and kept in good repair, working order and condition and all needed and proper repairs, renewals and replacements thereof to be made; provided, however, that nothing described in this paragraph (a) will be construed to (i) prevent it from ceasing to operate any portion of its Property, if in its judgment (supported, in the case of such a cessation other than in the ordinary course of business by an opinion or certificate of an Independent Consultant) it is advisable not to operate the same, or if it intends to sell or otherwise dispose of the same and within a reasonable time endeavors to effect such sale or other disposition, or (ii) obligate it to retain, preserve, repair, renew or replace any Property, leases, rights, privileges or licenses no longer used or, in the judgment of the Commission, useful in the conduct of its business;

(b) To do all things reasonably necessary to conduct its affairs and carry on its business and operations in such manner as to comply with any and all applicable laws of the United States and the Commonwealth of Virginia and duly observe and conform to all valid orders, regulations or requirements of any governmental authority relative to the conduct of its business and the ownership of its Properties; provided, nevertheless, that nothing contained in the Trust Agreement requires it to comply with, observe and conform to any such law, order, regulation or requirement of any governmental authority so long as the validity thereof or the applicability thereof to it is contested in good faith;

(c) To pay promptly all lawful taxes, governmental charges and assessments at any time levied or assessed upon or against it or its Property; provided, however, that it will have the right to contest in good faith any such taxes, charges or assessments or the collection of any such sums and pending such contest may delay or defer payment thereof;

(d) To pay promptly or otherwise satisfy and discharge all of its Indebtedness and all demands and claims against it as and when the same become due and payable, other than any

thereof (exclusive of the Indebtedness created and Outstanding under the Trust Agreement) whose validity, amount or collectability is being contested in good faith;

(e) At all times to comply with all terms, covenants and provisions of any Liens at such time existing upon its Property or any part thereof or securing any of its Indebtedness; and

(f) To procure and maintain all necessary licenses and permits for the operation of its Wastewater System;

provided, however, that it need not comply with the covenants described in this section if and to the extent that the Commission determines in good faith, evidenced by a resolution of the Commission, that such compliance is not in its best interests and that lack of such compliance would not materially impair its ability to pay its Indebtedness when due.

Insurance

(a) The District agrees that it will maintain, or cause to be maintained, the following types of insurance, subject to the provisions described in subsection (b) below, in such amounts as, in its judgment, are adequate to protect it and its Property and operations from material financial loss: (i) comprehensive general liability insurance, and (ii) property coverage on an “all risk” basis.

(b) If the District is self-insured (excluding deductibles) for any coverage described in (a) above, the District is to provide the Trustee a report of an Independent Insurance Consultant selected by the District not less than every three years, which report is to state whether the anticipated funding of any self-insurance fund is sufficient, and if not, the required funding to obtain such result, and any such self-insurance coverage will be reviewed by the Independent Insurance Consultant not less frequently than annually. If the Independent Insurance Consultant determines in any such report that the anticipated funding of any self-insurance fund is not sufficient, the District covenants that it will undertake to fund such self-insurance fund in the manner recommended by the Independent Insurance Consultant.

Insurance and Condemnation Proceeds

(a) Amounts that do not exceed 20% of the Net Book Value of the Property, Plant and Equipment of the District received by the District as insurance proceeds with respect to any casualty loss or as condemnation awards may be used in such manner as the District may determine, including, without limitation, applying such money to the partial payment or prepayment of any Indebtedness in accordance with the terms thereof and of any pertinent Supplement.

(b) Amounts that exceed 20% of the Net Book Value of the Property, Plant and Equipment received by the District as insurance proceeds with respect to any casualty loss or as condemnation awards will be applied in such manner as the District may determine; provided, however, that the District is to notify the Trustee and within 12 months after the casualty loss or taking, deliver to the Trustee a report of an Independent Consultant stating the Independent Consultant’s recommendations, including recommendations as to the use of such proceeds or awards, to cause the Long-Term Debt Service Coverage Ratio for each of the two periods of 12 full consecutive calendar months following the date on which such proceeds or awards are expected to have been fully applied to be not less than 120%, or, if in the opinion of the Independent Consultant the attainment of such level is impracticable, at the highest practicable level.

Annual Budget

The District covenants that on or before the first day of the last month preceding the beginning of each Fiscal Year the Commission will adopt a budget of operating and non-operating revenues and expenses for the ensuing Fiscal Year.

Senior Trust Agreement

The District covenants to observe the covenants of the Commission contained in the Senior Trust Agreement, which are expressly incorporated by reference by the Trust Agreement until there shall be no outstanding Senior Obligations. To the extent the covenants in the Trust Agreement and the covenants contained in the Senior Trust Agreement conflict, for so long as there shall be any outstanding Senior Obligations, the provisions of the covenants contained in the Senior Trust Agreement shall control.

Events of Default

Events of Default under the Trust Agreement are as follows: (a) payment of the purchase price of any Bond shall not be made by the District when the same shall become due and payable; or (b) payment of any installment of interest on any Bond is not made by the District when the same becomes due and payable; or (c) payment of the principal of any Bond is not made by the District when the same becomes due and payable, whether at maturity or by acceleration or otherwise; or (d) default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Trust Agreement or any Supplement to the Trust Agreement, including any covenant, condition, agreement or provision in the Trust Agreement applicable to the District and incorporated by reference in the Trust Agreement, and such default continues for 30 days after receipt by the District of a written notice from the Trustee specifying such default and requiring the same to be remedied; provided, however, if prior to the expiration of such 30 day period the District institutes action reasonably designed to cure such default, no Event of Default is to be deemed to have occurred upon the expiration of such 30-day period for so long as the District pursues such curative action with reasonable diligence and provided that such curative action can be completed within a reasonable time.

Remedies for Default

Upon the happening and continuance of an Event of Default, the Trustee may take whatever action at law or in equity is necessary or desirable (i) in the case of an Event of Default specified in (a), (b) or (c) in the immediately preceding paragraph, to collect the payments of interest installments or principal then due under the Trust Agreement or the Bonds, or (ii) in the case of an Event of Default specified in (d) in the immediately preceding paragraph, to enforce performance, observance or compliance by the District with any covenant, condition, agreement or provision under the Trust Agreement.

Upon the happening and continuance of an Event of Default, the Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding is required to, by notice in writing to the District, declare the principal of all Bonds then Outstanding (if not then due and payable) to be due and payable immediately.

However, if at any time after the principal of Bonds has been declared to be due and payable, and before the entry of final judgment or decree in any suit, action or proceeding instituted on account of such default, or before the completion of the enforcement of any other remedy under the Trust Agreement, (i) money has accumulated in or has been paid into the Bond Fund sufficient to pay the principal of all matured Bonds and all arrears of interest, if any, upon all Bonds then Outstanding (except the principal of

any Bond not then due and payable by its terms and the interest accrued on such Bond since the last Interest Payment Date), and the charges, compensations, expenses, disbursements, advances and liabilities of the Trustee and (ii) all amounts then payable by the District under the Trust Agreement have been paid or a sum sufficient to pay the same has been deposited with the Trustee, and (iii) every other default known to the Trustee in the observance or performance of any covenant, condition or agreement contained in the Bonds or in the Trust Agreement (other than a default in the payment of the principal of such Bonds then due only because of a declaration of acceleration of maturities) has been remedied to the satisfaction of the Trustee, then the Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of Bonds not then due and payable by their terms (Bonds then due and payable only because of a declaration of acceleration will not be deemed to be due and payable by their terms) and then Outstanding is required to, by written notice to the District, rescind and annul such declaration and its consequences, but no such rescission or annulment will extend to or affect any subsequent Event of Default or impair any right consequent thereon.

Upon the happening and continuance of an Event of Default, the Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding, and upon satisfactory indemnification, is required to, proceed either at equity or at law, or by proceedings in the office of any board or officer having jurisdiction to protect and enforce its rights and the rights of the Holders under the laws of the Commonwealth of Virginia or under the Trust Agreement as the Trustee, being advised by counsel chosen by the Trustee, deems most effectual to protect and enforce such rights. The Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding, upon indemnification satisfactory to the Trustee, have the right to direct the method and place of all remedial proceedings to be taken by the Trustee, provided that such direction is in accordance with law and the provisions of the Trust Agreement.

Restrictions upon Actions by Individual Holders

Except for the right of any Holder to enforce the payment of the principal of and interest on such Holder's Bond, no Holder will have any right to institute any suit, action or proceeding in equity or at law on any Bond or for the execution of any trust under the Trust Agreement or for any other remedy under the Trust Agreement unless (a) such Holder previously has given to the Trustee written notice of the particular Event of Default, (b) also the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding have made a request of the Trustee after the right to exercise such powers or right of action has accrued, and such Holder has afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted in the Trust Agreement or to institute such action, suit or proceedings in its or their name, and (c) there has been offered to the Trustee reasonable security and indemnity against the costs, expenses and liabilities (including attorney's fees, costs and expenses to be incurred therein or thereby, and the Trustee has refused or neglected to comply with such request within a reasonable time. Notwithstanding the foregoing provisions and without complying therewith, the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding may institute any such suit, action or proceeding in their own names for the benefits of all Holders of the Bonds.

Notice of Default to Holders

The Trustee is required to give written notice to all Holders of the occurrence of any Event of Default within 30 days after the Trustee has actual notice thereof, provided, however, except upon the occurrence of an Event of Default due to failure by the District to make payments of any installment of interest on or principal or purchase price of any Bond when the same become due and payable within 30 days after the Trustee received notice of the same, the Trustee may withhold such notice to the Holders if in its opinion such withholding is in the interest of the Holders.

Pro-Rata Application of Funds

Notwithstanding anything in the Trust Agreement to the contrary, if at any time the money in the Bond Fund is not sufficient to pay the interest on or the principal of Bonds as the same become due and payable (either by their terms or by acceleration of maturities under the provisions of the Trust Agreement), such money, together with any money then available or thereafter becoming available for such purpose, is to be applied, subject to the compensation and indemnification to the Trustee and Bond Registrar, as follows:

(a) if the principal of all Bonds has not become or has not been declared due and payable, all such money in the Bond Fund is to be applied:

first: to the payment to the persons entitled thereto of all installments of interest on Bonds then due and payable in the order in which such installments became due and payable and, if the amount available is not sufficient to pay in full any particular installment, then to the payment, ratably according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in such Bonds;

second: to the payment to the persons entitled thereto of the unpaid principal of any Bonds that have become due and payable (other than Bonds called for redemption for the payment of which money is held pursuant to the provisions of the Trust Agreement), in the order of their due dates, and, if the amount available is not sufficient to pay in full the principal of Bonds due and payable on any particular date, then to the payment ratably according to the amount of such principal due on such date, to the persons entitled thereto without any discrimination or preference; and

third: to the payment of the interest on and the principal of Bonds, to the purchase and retirement of Bonds due to the redemption of Bonds in accordance with the Trust Agreement and the applicable Series Agreement.

(b) If the principal of all Bonds has become or has been declared due and payable, all such money is to be applied to the payment of principal and interest then due upon the Bonds without preference to the persons entitled thereto, without preference or priority of principal over interest or interest over principal, or of any installment of interest over any other installment of interest or any Bond over any other Bond ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto, without any discrimination or preference.

(c) If the principal of all Bonds has been declared due and payable and if such declaration is thereafter rescinded and annulled due to the remediation of an Event of Default, then, subject to the provisions described in paragraph (b) of this section, in the event that the principal of all Bonds later becomes due and payable or is declared due and payable, the money then remaining in and thereafter accruing to the Bond Fund is to be applied in accordance with the provisions described in paragraph (a) above.

Subordination

Notwithstanding any other provision of the Trust Agreement to the contrary:

(a) In the event of any insolvency or bankruptcy proceedings, and any receivership, liquidation, reorganization or other similar proceedings in connection therewith, relative to the

District, as such, or to its property, and in the event of any proceedings for voluntary liquidation, dissolution or other winding up of the District, whether or not involving insolvency or bankruptcy, the holders of all Senior Obligations then outstanding shall be entitled to receive payment in full of all principal and interest due on all such Senior Obligations in accordance with the provisions of Senior Trust Agreement and the resolutions or other instruments authorizing their issuance before the Trustee and the Holders of the Parity Obligations are entitled to receive any payment from the Net Revenues Available for Debt Service or other money pledged to the Parity Obligations on account of principal (and premium, if any) or interest upon the Parity Obligations.

(b) In the event that the Parity Obligations are declared due and payable before their stated maturity because of the occurrence of an Event of Default (under circumstances when the provisions described in paragraph (a) above are not applicable), the holders of all Senior Obligations outstanding at the time the Parity Obligations become due and payable because of such occurrence of such an Event of Default shall be entitled to receive payment in full of all principal and interest on all such Senior Obligations before the Holders of the Parity Obligations are entitled to receive any accelerated payment from the Net Revenues Available for Debt Service and other money pledged to the Parity Obligations of principal (and premium, if any) or interest upon the Parity Obligations.

(c) If any event of default with respect to the Senior Obligations shall have occurred and be continuing (under circumstances when the provisions described in paragraph (a) above are not applicable), the holders of all such Senior Obligations then outstanding shall be entitled to receive payment in full of all principal and interest on all such Senior Obligations as the same become due and payable before the Holders of the Parity Obligations are entitled to receive, subject to the provisions of paragraph (e) below, any payment from the Net Revenues Available for Debt Service and other money pledged to the Parity Obligations under the Trust Agreement of principal (and premium, if any) or interest upon the Parity Obligations.

(d) No holder of Senior Obligations shall be prejudiced in his right to enforce subordination of the Parity Obligations by any act or failure to act on the part of the District.

(e) The provisions described in paragraphs (a), (b), (c) and (d) above are solely for the purpose of defining the relative rights of the holders of the Senior Obligations on the one hand, and the Holders of Parity Obligations on the other hand, and nothing in the Trust Agreement is to impair, as between the District and the Holders of the Parity Obligations, the obligation of the District, which shall be unconditional and absolute, to pay to the Holders of the Parity Obligations the principal thereof and premium, if any, and interest on the Parity Obligations, respectively, in accordance with their terms, nor shall anything in the Trust Agreement prevent the Holders of the Parity Obligations from exercising all remedies otherwise permitted by applicable law or thereunder upon default thereunder, subject to the rights described in paragraphs (a), (b), (c) and (d) above of the holders of the Senior Obligations to receive cash, property or securities from the Net Revenues and other money pledged to such Senior Obligations otherwise payable or deliverable to the Holders of the Parity Obligations; and insofar as the Bond Registrar, Depository or Trustee is concerned, the foregoing provisions shall not prevent the application of any money deposited with the Bond Registrar, Depository or Trustee for the purpose of the payment of or on account of the principal (and premium, if any) and interest on the Parity Obligations if it did not have written notice or actual knowledge at the time of such application that such payment was prohibited by the foregoing provisions.

Supplemental Trust Agreements without Consent of Holders

The District and the Trustee may without the consent of or notice to any of the Holders, enter into agreements supplemental to the Trust Agreement as are substantially consistent with the terms and provisions of the Trust Agreement:

- (a) to cure any ambiguity or formal defect or omission, to correct or supplement any provision of the Trust Agreement that may be inconsistent with any other provision of the Trust Agreement, to make any other provisions with respect to matters or questions arising under the Trust Agreement, or to modify, alter, amend, add to or rescind, in any particular, any of the terms or provisions contained in the Trust Agreement, or
- (b) to grant to or confer upon the Trustee for the benefit of the Holders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Holders or the Trustee, or
- (c) to add to the provisions of the Trust Agreement other conditions, limitations and restrictions thereafter to be observed, or
- (d) to add to the covenants and agreements of the District in the Trust Agreement other covenants and agreements thereafter to be observed by the District or to surrender any right or power reserved in the Trust Agreement to or conferred upon the District, or
- (e) to permit the qualification of the Trust Agreement under any federal statute now or hereafter in effect or under any state Blue Sky law, and, in connection therewith, if the District so determines, to add to the Trust Agreement or any supplemental trust agreement such other terms, conditions and provisions as may be permitted or required by such federal statute or Blue Sky law, or
- (f) to provide for the issuance of Bonds under a book-entry system, or
- (g) to make any other change in the Trust Agreement that, in the judgment of the District, expressed in a resolution of the Commission, and the Trustee, each of which may rely upon a written Opinion of Counsel, will not materially and adversely affect the Holders of the Bonds of each series that will be affected by such supplement.

Modification of Trust Agreement with Consent of Holders

The Holders of not less than a majority of the aggregate principal amount of Bonds then Outstanding will have the right to consent to and approve the execution and delivery by the District and the acceptance by the Trustee of such trust agreement or trust agreements supplemental to the Trust Agreement as deemed necessary or desirable by the District for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, the Trust Agreement; provided, however, that nothing contained in the Trust Agreement will permit, or be construed as permitting (a) an extension of the maturity of the principal of or the interest on any Bonds issued under the Trust Agreement without the consent of the Holders of such Bonds, or (b) a reduction in the principal amount of any Bonds or the rate of interest thereon without the consent of the Holders of such Bonds, or (c) the creation of a pledge of receipts and revenues superior to the pledge created by the Trust Agreement without the consent of the Holders of all Bonds Outstanding, or (d) a preference or priority of any Bond over any other Bond without the consent of the Holders of all Bonds Outstanding, or (e) a reduction in the aggregate principal

amount of Bonds required for consent to such supplemental trust agreement without the consent of the Holders of all Bonds Outstanding.

If the District requests the Trustee to enter into any supplemental trust agreement described in the immediately preceding paragraph, the Trustee will cause notice of the proposed supplemental trust agreement to be mailed to all Holders. If the Holders of not less than a majority in aggregate principal amount of Bonds Outstanding at the time of the execution of such supplemental trust agreement have consented to and approved the execution, no Holder will have any right to object to the adoption of such supplemental trust agreement.

Defeasance

(a) When the Bonds become due and payable and the whole amount of the principal and the interest so due and payable upon all Bonds is required to be paid, and (b) if the Bonds have not become due and payable, the Trustee or the Bond Registrar holds, sufficient money or Defeasance Obligations, or a combination of money and Defeasance Obligations, the principal of and the interest on which, when due and payable, will provide sufficient money to pay the principal of, and the interest on, all Bonds then Outstanding to the maturity date or dates of such Bonds and (c) sufficient funds also have been provided or provision has been made for paying all other obligations payable under the Trust Agreement by the District, then and in that case the right, title and interest of the Trustee in the funds and accounts mentioned in the Trust Agreement will thereupon cease, determine and become void and, on demand of the District and upon being furnished with an opinion, satisfactory to the Trustee, of counsel approved by the Trustee, to the effect that all conditions precedent to the release of the Trust Agreement have been satisfied, the Trustee will release the Trust Agreement and will execute such documents to evidence such release as may reasonably be required by the District and will turn over to the District any surplus in, and all balances remaining in, all funds and accounts.

Otherwise, the Trust Agreement will continue to be and remain in full force and effect; provided, that, in the event Defeasance Obligations are deposited with and held by the Trustee or the Bond Registrar as provided for above, (i) the Trustee will nevertheless retain such rights, powers and privileges under the Trust Agreement as may be necessary and convenient in respect of the Bonds for the payment of the principal and interest for which such Defeasance Obligations have been deposited, and (ii) the Bond Registrar will retain such rights, powers and privileges under the Trust Agreement as may be necessary and convenient for the registration, transfer and exchange of Bonds.

Release of Seventh Supplemental Trust Agreement

When (a) the Series 2019A Bonds have become due and payable in accordance with their terms or otherwise as provided in the Seventh Supplemental Trust Agreement, the whole amount of the principal and the interest so due and payable upon all Series 2019A Bonds is paid, (b) if the Series 2019A Bonds have not become due and payable in accordance with their terms, the Trustee or the Bond Registrar holds, sufficient money or Defeasance Obligations, or a combination of money and Defeasance Obligations, the principal of and the interest on which, when due and payable, will provide sufficient money to pay the principal of, and the interest on, all Series 2019A Bonds then Outstanding to the maturity date or dates of such Series 2019A Bonds and (c) sufficient funds also have been provided or provision made for paying all other obligations payable under the Seventh Supplemental Trust Agreement by the District, then and in that case the right, title and interest of the Trustee in the funds and accounts mentioned in the Seventh Supplemental Trust Agreement will thereupon cease, determine and become void and, on demand of the District and upon being furnished with an opinion, in form and substance satisfactory to the Trustee, of Bond Counsel, to the effect that all conditions precedent to the release of the Seventh Supplemental Trust Agreement and the defeasance of the Series 2019A Bonds have been

satisfied, the Trustee is to release the Seventh Supplemental Trust Agreement and is to execute such documents to evidence such release as may reasonably be required by the District and, subject to the provisions of the Trust Agreement, is to turn over to the District any surplus in, and all balances remaining in, all funds and accounts.

Removal of Trustee

The Trustee may be removed at any time by an instrument or concurrent instruments in writing, (i) executed by the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding and filed with the District, or (ii) so long as no Event of Default has occurred and is continuing, an instrument executed by the District, not less than 60 days before such removal is to take effect as stated in said instrument or instruments. The Trustee may also be removed at any time for acting or proceeding in violation of, or for failing to act or proceed in accordance with, any provisions of the Trust Agreement with respect to the duties and obligations of the Trustee by any court of competent jurisdiction upon the application of the District or the Holders of not less than a majority in aggregate principal amount of Bonds then Outstanding.

APPENDIX D

PROPOSED OPINION OF BOND COUNSEL

October __, 2019

Hampton Roads Sanitation District Commission
Virginia Beach, Virginia

We have examined Chapter 66 of the Acts of Assembly of Virginia of 1960, as amended (the “Act”), and certified copies of the proceedings of the Hampton Roads Sanitation District Commission (the “Commission”), the governing body of Hampton Roads Sanitation District (a political subdivision of the Commonwealth of Virginia and herein sometimes called the “District”), authorizing the execution and delivery of a Trust Agreement, dated as of October 1, 2011, as amended and restated as of March 1, 2016, and as supplemented (the “Trust Agreement”), including as supplemented by the Seventh Supplemental Trust Agreement, dated as of October 1, 2019, each by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), and the issuance of

\$205,675,000

HAMPTON ROADS SANITATION DISTRICT

Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable)

Dated, maturing, subject to redemption, and bearing interest,
all as provided in the Trust Agreement.

Pursuant to the Trust Agreement, as security for the payment of the amounts due on the above-captioned bonds (the “Bonds”), the District has pledged its Net Revenues Available for Debt Service to the Trustee. The District’s Net Revenues Available for Debt Service consist of all revenues derived by the District from the Wastewater System (as defined in the Trust Agreement) except such part of such revenues as may be required to pay (i) the cost of maintaining, repairing and operating such Wastewater System and (ii) Senior Obligations.

For purposes of the opinions in paragraphs 1, 2 and 3 below, we have relied upon the opinion of Kellam, Pickrell, Cox & Anderson, A Professional Corporation, to the effect that the resolutions of the Commission authorizing the Bonds and approving the Trust Agreement were duly adopted.

We have also examined one of the Bonds, as executed and authenticated.

Based upon such examination, we are of the opinion that:

1. The Bonds have been duly authorized, executed and issued for the purpose of providing funds, together with other available funds, to refund certain of the District’s outstanding bonds and to pay certain costs of issuing the Bonds.

2. The Trust Agreement has been duly authorized and executed by the District and, assuming due authorization and execution by the Trustee, is a valid, binding and enforceable obligation of the District in accordance with its terms.

3. The Bonds are valid and binding special obligations of the District payable solely from the Net Revenues Available for Debt Service and other funds pledged as security therefor under the Trust Agreement.

4. The Bonds do not constitute a debt of the Commonwealth of Virginia or of any county, city, town or political subdivision thereof, or a pledge of the faith and credit of the Commonwealth of Virginia or of any county, city, town or political subdivision thereof. The issuance of the Bonds does not directly or indirectly or contingently obligate the Commonwealth of Virginia or any county, city, town or political subdivision thereof to levy or to pledge any form of taxation whatever therefor.

5. As provided by the Act, the Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, shall be free and exempt from taxation by the Commonwealth of Virginia and any political subdivision thereof.

The enforceability of the Trust Agreement and the obligations of the District with respect to such documents described above are subject to bankruptcy, insolvency, fraudulent conveyance, reorganization and other laws affecting creditors' rights generally. To the extent that the remedies under the Trust Agreement require enforcement by a court of equity, the enforceability thereof may be limited by such principles of equity as the court having jurisdiction may impose.

Respectfully submitted,

APPENDIX E
FORM OF
CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (this “Disclosure Agreement”), dated as of October 2, 2019, is executed and delivered by Hampton Roads Sanitation District (the “District”) in connection with the issuance by the District of its Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable) (the “Bonds”), pursuant to the provisions of an Amended and Restated Trust Agreement, dated as of March 1, 2016, as supplemented (the “Trust Agreement”), by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee. The proceeds of the Bonds are being used by the District to provide funds to refund certain senior indebtedness of the District. The District hereby covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by the District for the benefit of the holders of the Bonds and in order to assist the Participating Underwriters (defined below) in complying with the Rule (defined below). The District acknowledges that it is undertaking primary responsibility for any reports, notices or disclosures that may be required under this Disclosure Agreement.

SECTION 2. Definitions. In addition to the definitions set forth in the Trust Agreement, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the District pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

“Dissemination Agent” shall mean the District, acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the District and which has filed with the District a written acceptance of such designation.

“Filing Date” shall have the meaning given to such term in Section 3(A) hereof.

“Financial Obligation” means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of a debt obligation or any such derivative instrument; provided that “financial obligation” shall not include municipal securities (as defined in the Securities Exchange Act of 1934, as amended) as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

“Fiscal Year” shall mean the twelve-month period at the end of which financial position and results of operations are determined. Currently, the District’s Fiscal Year begins July 1 and continues through June 30 of the next calendar year.

“Holder” or “holder” shall mean, for purposes of this Disclosure Agreement, any person who is a record owner or beneficial owner of a Bond.

“Listed Events” shall mean any of the events listed in subsection (b)(5)(i)(C) of the Rule, which are as follows:

- (i) principal and interest payment delinquencies;

- (ii) non-payment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;
- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
- (vii) modifications to rights of security holders, if material;
- (viii) bond calls, if material, and tender offers;
- (ix) defeasances;
- (x) release, substitution, or sale of property securing repayment of the Bonds, if material;
- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership or similar event of the District;
- (xiii) the consummation of a merger, consolidation, or acquisition involving the District or the sale of all or substantially all of the assets of the District, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and appointment of a successor or additional paying agent or the change of name of a paying agent, if material;
- (xiv) appointment of a successor or additional paying agent or the change of name of a paying agent, if material;
- (xv) incurrence of a Financial Obligation of the District, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the District, any of which affect security holders, if material; and
- (xvi) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the District, any of which reflect financial difficulties.

For these purposes, (a) any event described in the immediately preceding paragraph (xii) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the District in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the District or if such jurisdiction has been assumed by

leaving the existing governing body and officials or officers of the District in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the District, and (b) the District intends the words used in the immediately preceding paragraphs (xv) and (xvi) and the definition of Financial Obligation in this Section 2 to have the same meanings as when they are used in the Rule, as evidenced by SEC Release No. 34-83885, dated August 20, 2018.

“MSRB” means the Municipal Securities Rulemaking Board.

“Participating Underwriters” shall mean any of the original underwriters of the Bonds required to comply with the Rule in connection with the offering of such Bonds.

“Repository” shall mean The Electronic Municipal Market Access (“EMMA”) system administered by the Municipal Securities Rulemaking Board. EMMA is recognized as a National Repository for purposes of the Rule.

“Rule” shall mean Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

A. The District shall, or shall cause the Dissemination Agent to, provide to the Repository an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. Such Annual Report shall be filed on a date (the “Filing Date”) that is not later than December 31 after the end of any Fiscal Year (commencing with its Fiscal Year ending June 30, 2019). Not later than ten (10) days prior to the Filing Date, the District shall provide the Annual Report to the Dissemination Agent (if applicable). In such case, the Annual Report (i) may be submitted as a single document or as separate documents comprising a package, (ii) may cross-reference other information as provided in Section 4 of this Disclosure Agreement and (iii) shall include the District’s audited financial statements or, if audited financial statements are not available, such unaudited financial statements as may be required by the Rule. In any event, audited financial statements of the District must be submitted, if and when available, together with or separately from the Annual Report.

B. The annual financial statements of the District shall be prepared on the basis of generally accepted accounting principles and will be audited. Copies of the audited annual financial statements, which may be filed separately from the Annual Report, will be filed with the Repository when they become publicly available.

C. If the District fails to provide an Annual Report to the Repository by the date required in subsection A hereto or to file its audited annual financial statements with the Repository when they become publicly available, the District shall send a notice to the Repository in substantially the form attached hereto as Exhibit B.

SECTION 4. Content of Annual Reports. Except as otherwise agreed, any Annual Report required to be filed hereunder shall contain or incorporate by reference, at a minimum, annual financial information relating to the District, including operating data, updating such information relating to the District as described in Exhibit A, all with a view toward assisting the Participating Underwriters in complying with the Rule.

Any or all of such information may be incorporated by reference from other documents, including official statements of securities issues with respect to which the District is an “obligated person” (within the meaning of the Rule), which have been filed with the Repository or the Securities and Exchange Commission. If the document incorporated by reference is a final official statement, it must be available from the Repository. The District shall clearly identify each such other document so incorporated by reference.

SECTION 5. Reporting of Listed Events. The District will provide within ten business days to the Repository, notice of any of the Listed Events.

SECTION 6. Termination of Reporting Obligation. The District’s obligations under this Disclosure Agreement shall terminate upon the earlier to occur of the legal defeasance and final retirement of all the Bonds.

SECTION 7. Dissemination Agent. The District may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. If at any time there is not any other designated Dissemination Agent, the District shall be the Dissemination Agent.

SECTION 8. Amendment. Notwithstanding any other provision of this Disclosure Agreement, the District may amend this Disclosure Agreement, if such amendment is supported by an opinion of independent counsel with expertise in federal securities laws, to the effect that such amendment is permitted or required by the Rule.

SECTION 9. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the District from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the District chooses to include any information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is specifically required by this Disclosure Agreement, the District shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 10. Default. Any person referred to in Section 12 (other than the District) may take such action as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District to file its Annual Report or to give notice of a Listed Event. The holders of not less than a majority in aggregate principal amount of Bonds Outstanding may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to challenge the adequacy of any information provided pursuant to this Disclosure Agreement, or to enforce any other obligation of the District hereunder. A default under this Disclosure Agreement shall not be deemed an event of default under the Trust Agreement or the Bonds, and the sole remedy under this Disclosure Agreement in the event of any failure of the District to comply herewith shall be an action to compel performance. Nothing in this provision shall be deemed to restrict the rights or remedies of any holder pursuant to the Securities Exchange Act of 1934, the rules and regulations promulgated thereunder, or other applicable laws.

SECTION 11. Format of Filings. Unless otherwise required by the Repository, all notice, documents and information provided to the Repository pursuant to this Disclosure Agreement shall be provided to EMMA, the current Internet address of which is www.emma.msrb.org. All notices, documents and information provided to the EMMA shall be provided in an electronic format prescribed

by the Repository (currently, portable document format (pdf) which must be word-searchable except for non-textual elements) and shall be accompanied by identifying information as prescribed by the Repository.

SECTION 12. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the District, the Participating Underwriters and the holders from time to time of the Bonds, and shall create no rights in any other person or entity.

HAMPTON ROADS SANITATION DISTRICT

By: _____
Director of Finance

**CONTENT OF ANNUAL REPORT
HAMPTON ROADS SANITATION DISTRICT**

(a) **Financial Information.** Updated information including summary financial results, treatment charge collection rate, revenue collections from the District's largest customers, and a five-year comparison of revenues, expenses, debt service and debt service coverage ratios.

(b) **Debt Information.** Updated information including the debt service requirements of long-term indebtedness.

(c) **Operating Data.** Updated operating data including wastewater flows to the Wastewater System and its major treatment plants, the treatment capacities of its major treatment plants, total billed wastewater flows, and changes in rates and charges.

In general, the foregoing will include information as of the end of the most recent fiscal year or as of the most recent practicable date. Where information for the fiscal year just ended is provided, it may be preliminary and unaudited. Where information has historically been provided for more than a single period, comparable information will in general be provided for the same number of periods where valid and available. Where comparative demographic or economic information for the District and the United States as a whole is contemporaneously available and, in the judgment of the District, informative, such information may be included. Where, in the judgment of the District, an accompanying narrative is required to make data presented not misleading, such narrative will be provided.

**NOTICE OF FAILURE TO FILE ANNUAL REPORT
[AUDITED ANNUAL FINANCIAL STATEMENTS]**

**Re: HAMPTON ROADS SANITATION DISTRICT
SUBORDINATE WASTEWATER REVENUE BONDS,
REFUNDING SERIES 2019A (FEDERALLY TAXABLE)**

CUSIP NO.: 409327 _____

Dated: October 2, 2019

NOTICE IS HEREBY GIVEN that Hampton Roads Sanitation District has not provided an Annual Report [Audited Annual Financial Statements] as required by Section 3 of the Continuing Disclosure Agreement, which was entered into in connection with the above-named bonds, the proceeds of which were used to refund, in advance of their maturity, certain outstanding Senior Bonds and certain outstanding Bonds. [The District anticipates that the Annual Report [Audited Annual Financial Statements] will be filed by _____.]

Dated: _____

HAMPTON ROADS SANITATION DISTRICT

By _____

APPENDIX F

THE DEPOSITORY TRUST COMPANY

The Depository Trust Company (DTC), the world's largest depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provision of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 2.2 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC, in turn, is owned by a number of Direct Participants of DTC and Members of the National Securities Clearing Corporation, Fixed Income Clearing Corporation, and Emerging Markets Clearing Corporation, (NSCC, FICC, and EMCC, also subsidiaries of DTCC), as well as by the New York Stock Exchange, Inc., the American Stock Exchange LLC, and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 2019A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2019A Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2019A Bond (the "Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2019A Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2019A Bonds, except if use of the book-entry system for the Series 2019A Bonds is discontinued.

To facilitate subsequent transfers, all Series 2019A Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2019A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2019A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2019A Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial

Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the Series 2019A Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2019A Bonds unless authorized by a Direct Participant in accordance with DTC's procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the District as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2019A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal, premium, if any, and interest payments on the Series 2019A Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the District on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, or the District, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, premium, if any, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the District, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.