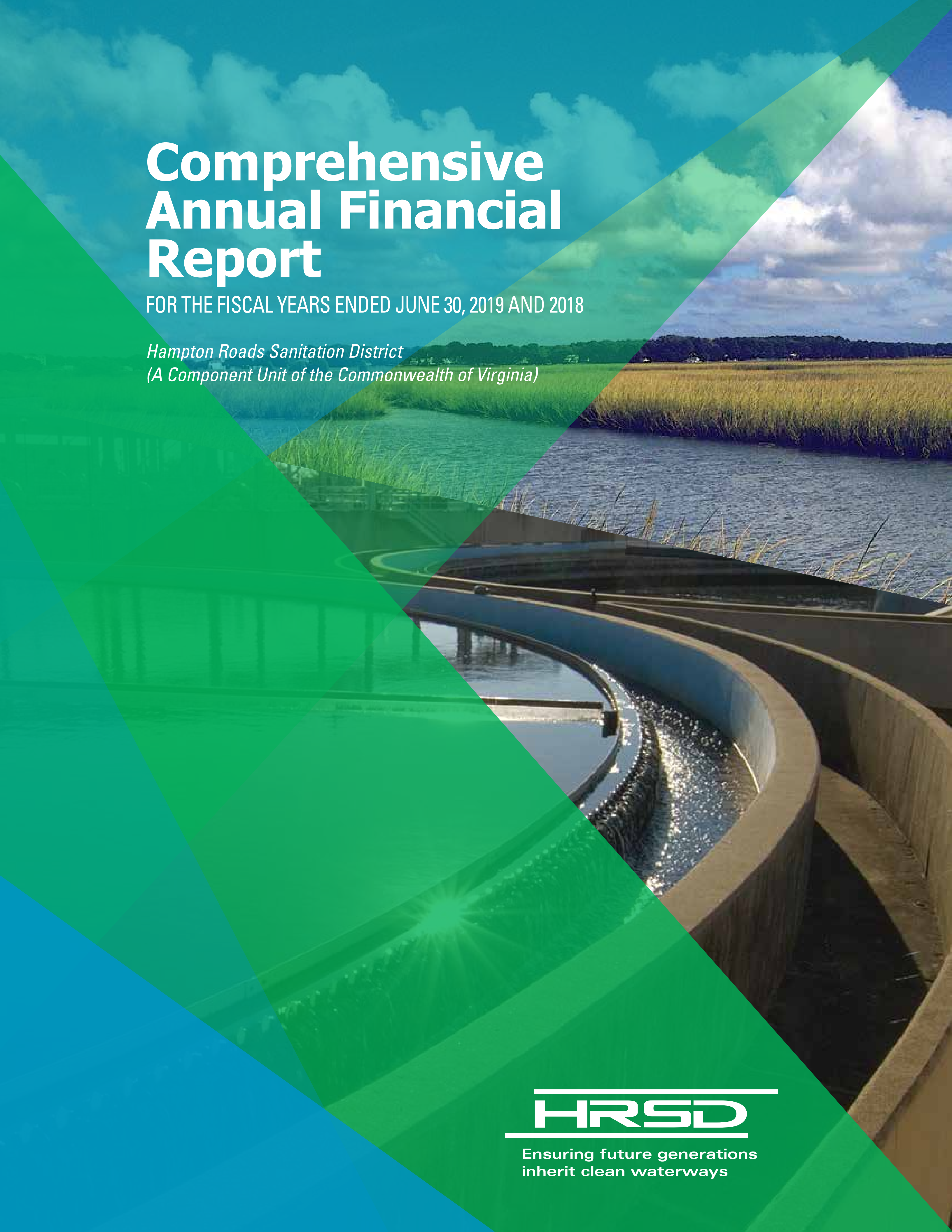

Comprehensive Annual Financial Report

FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018

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

HRSD

Ensuring future generations
inherit clean waterways

Cleaning wastewater every day for a better Bay.

HAMPTON ROADS SANITATION DISTRICT

(A Component Unit of the Commonwealth of Virginia)

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the fiscal years ended

June 30, 2019 and 2018

Prepared by:
Finance Department

HAMPTON ROADS SANITATION DISTRICT

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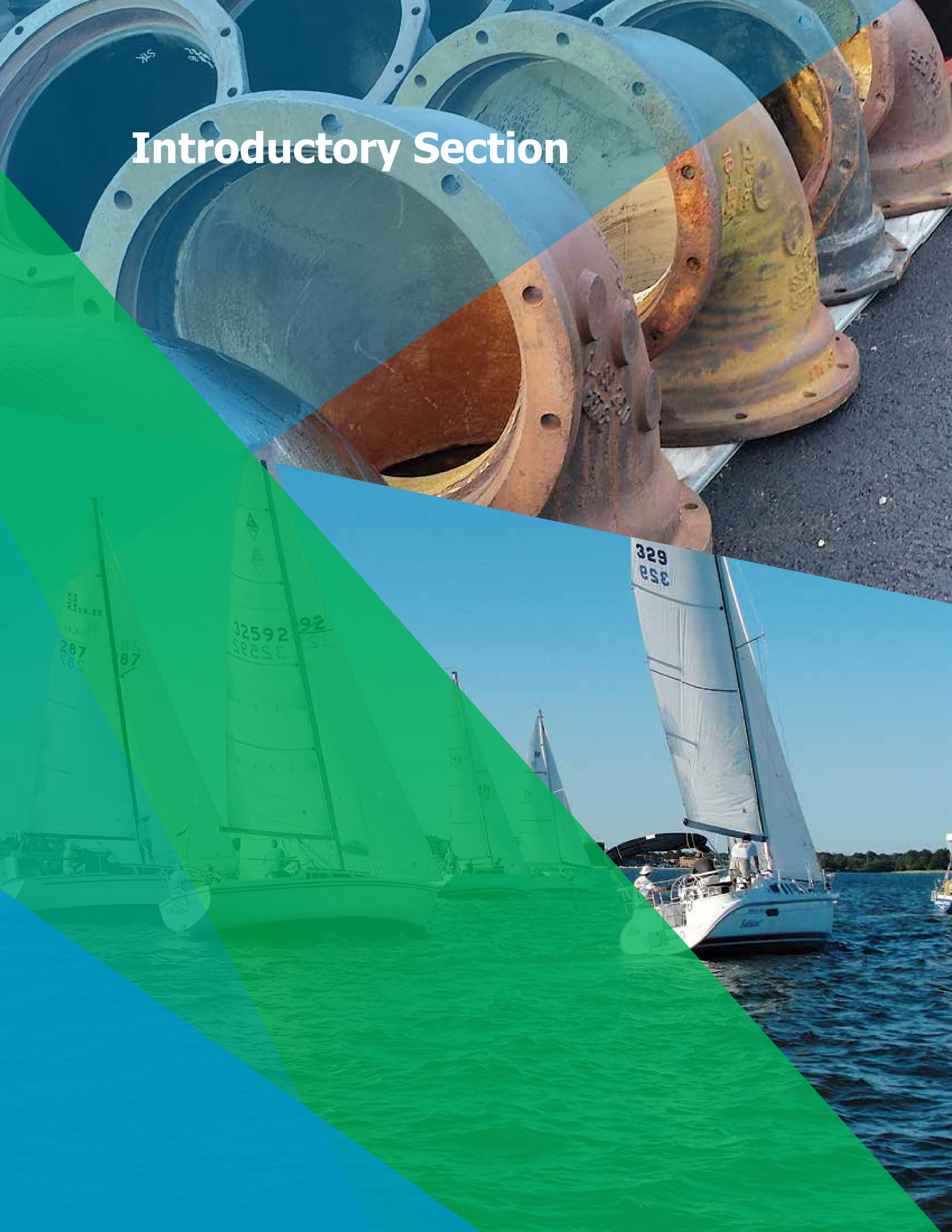
Introductory Section



HRSD

November 22, 2019

Hampton Roads Sanitation District Commission
Virginia Beach, Virginia

Dear Commissioners:

Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. This report fulfills that requirement for the fiscal year ended June 30, 2019.

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

Cherry Bekaert LLP, Certified Public Accountants, has issued an unmodified ("clean") opinion on HRSD's financial statements for the year ended June 30, 2019. The independent auditors' report is located at the front of the financial section of this report.

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

PROFILE OF HRSD

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

Approximately 1.7 million individuals, more than one-fifth of Virginia's population, reside in HRSD's service area, which is located in the southeastern corner of the Commonwealth. HRSD's territory of approximately 3,100 square miles encompasses nine cities, nine counties and several large military facilities. A brief history of HRSD is provided on page 8. HRSD is required by its enabling act to meet its obligations by charging user fees for its wastewater treatment services; no taxing authority is authorized by the enabling act. Currently, HRSD provides service and bills to approximately 476,000 service connections.

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

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

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

HRSD maintains 541 miles of pipelines ranging from six inches to 66 inches in diameter. Interceptor pipelines, along with 87 pump stations in Hampton Roads, interconnect into two independent systems, one south of the James River and one north of the James River. The system allows some flow diversions to provide for maintenance or emergency work. HRSD owns and maintains 41 pump stations in the Small Communities.

LOCAL ECONOMY

HRSD's service area includes nearly all of the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (MSA). It is the ninth largest MSA in the southeastern United States and the thirty-seventh largest in the nation. Unlike many metropolitan areas, Hampton Roads' population nucleus is not confined to one central city. Instead, the approximately 1.7 million residents are spread among several cities and counties. Virginia Beach is the most populous city in the Commonwealth, with Norfolk and Chesapeake second and third, respectively. Suffolk is the largest city by land area. Unemployment rates remain below national averages in the region, which has a civilian labor force of 859,200 as of June 2019.

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

A diverse customer base allows HRSD to maintain stable revenues. The ten largest customers account for only 10.2 percent of wastewater revenues for fiscal year 2019. In addition, HRSD's 2019 revenues contained only limited reliance (2.1 percent) on new customer connections.

LONG-TERM FINANCIAL PLANNING

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

MAJOR INITIATIVES

HRSD continues its ambitious $2.8 billion, ten-year Capital Improvement Program. Regulatory requirements to reduce nutrient discharges, initiatives to ensure appropriate wet weather capacity exists within the regional sanitary sewer system, major plant upgrades and replacements of interceptor pipelines drive the capital program. Major projects are currently under construction at the Army Base Treatment Plant and the Virginia Initiative Plant.

To minimize the impacts of its capital investments on ratepayers, HRSD continues to pursue grant opportunities when available. In 2019, HRSD received approximately $2.8 million in grant reimbursements and other capital contributions for improvements to several of its treatment plants.

AWARDS AND ACKNOWLEDGMENTS

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to HRSD for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2018. This was the 36th consecutive year that HRSD has received this prestigious award. In order to be awarded a Certificate of Achievement, HRSD must publish an easily readable and efficiently organized CAFR that satisfies both generally accepted accounting principles and applicable legal requirements.

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

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

Respectfully submitted,

Edward Henifin, P.E.	Jay A. Bernas, P.E.	Carroll L. Acors, CPA
General Manager	Director of Finance	Chief of Accounting

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Hampton Roads Sanitation District

Virginia

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO

Principal Officials

June 30, 2019

COMMISSIONERS

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Maurice P. Lynch, PhD, Vice-Chair

Michael E. Glenn

Vishnu K. Lakdawala, PhD

Willie Levenston, Jr.

Stephen C. Rodriguez

Elizabeth A. Taraski, PhD

Molly J. Ward

COMMISSION SECRETARY

Jennifer L. Cascio

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Edward G. Henifin, PE
General Manager

Jay A. Bernas, PE
Director of Finance
and Treasurer

Charles B. Bott, PhD, PE
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, PE
Director of Engineering

James J. Pletl, PhD
Director of Water Quality

Leila E. Rice, APR
Director of Communications

COUNSEL

Kellam, Pickrell, Cox & Anderson, PC
General Counsel

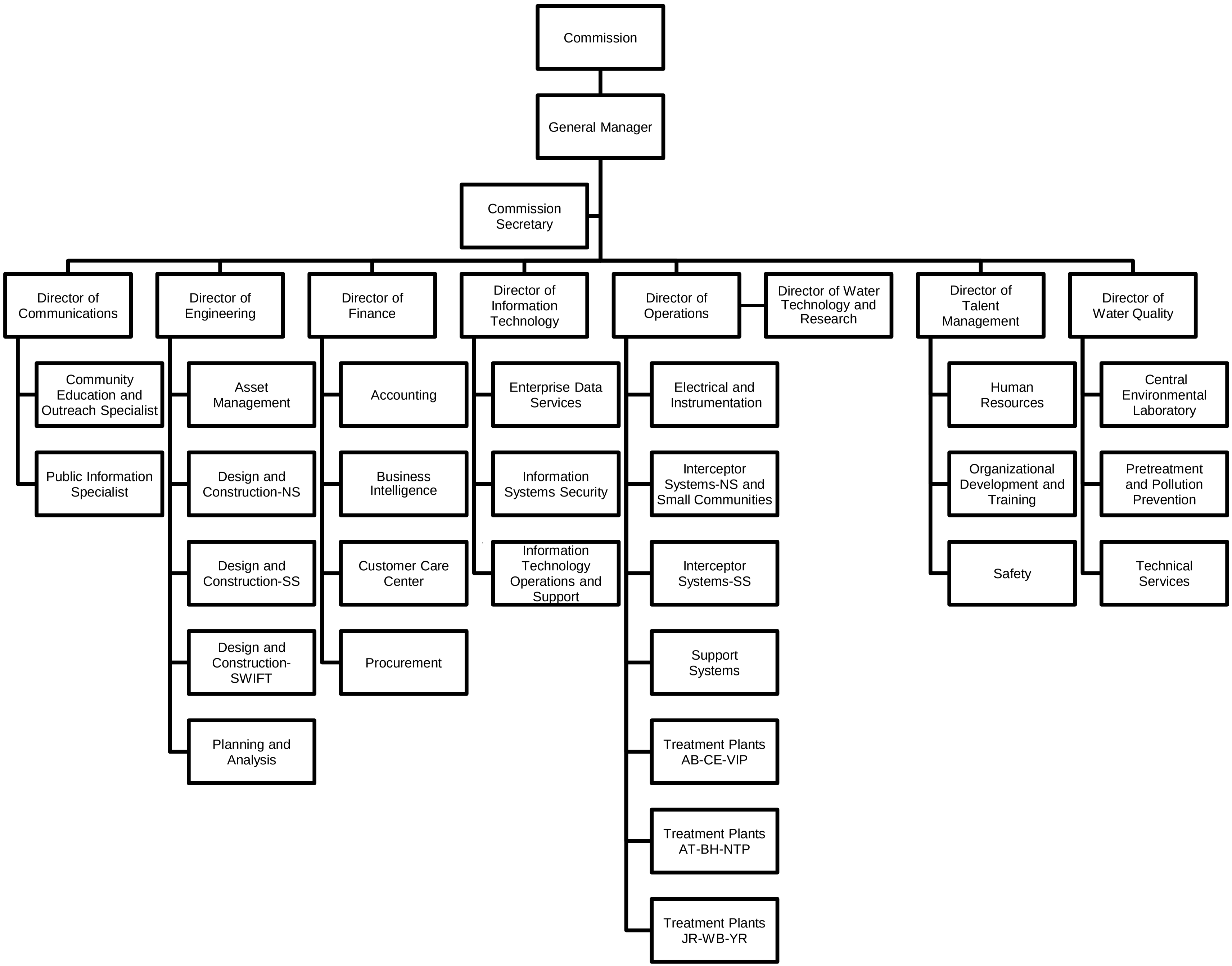
Jones, Blechman, Woltz & Kelly, PC
Associate Counsel

AquaLaw, PLC
Special Counsel

Norton Rose Fulbright US, LLP
Bond Counsel

HRSD Organization Chart

June 30, 2019



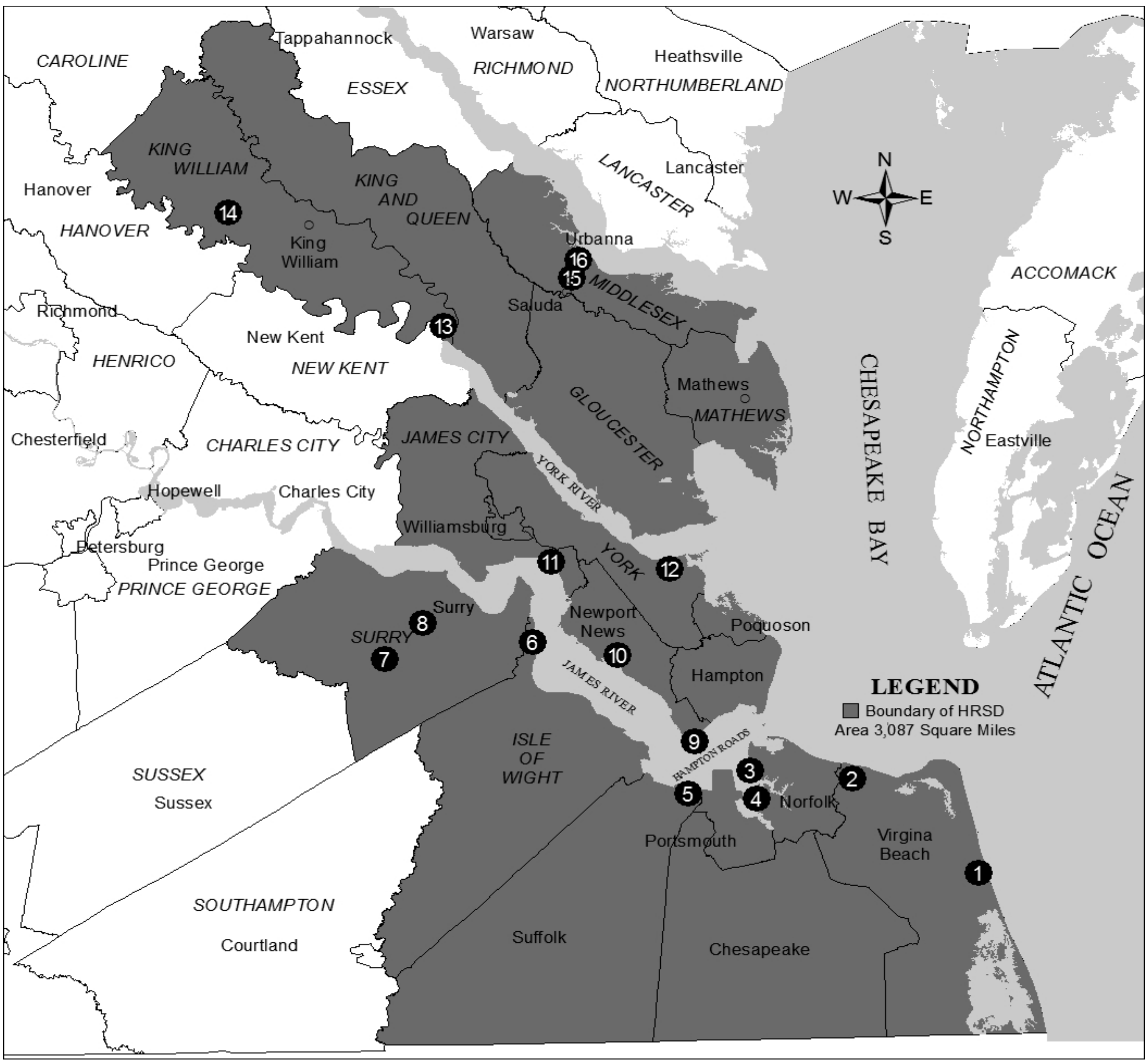
HRSD Service Area

A Political Subdivision of the Commonwealth of Virginia

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



05/2017

History of HRSD

June 30, 2019

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

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

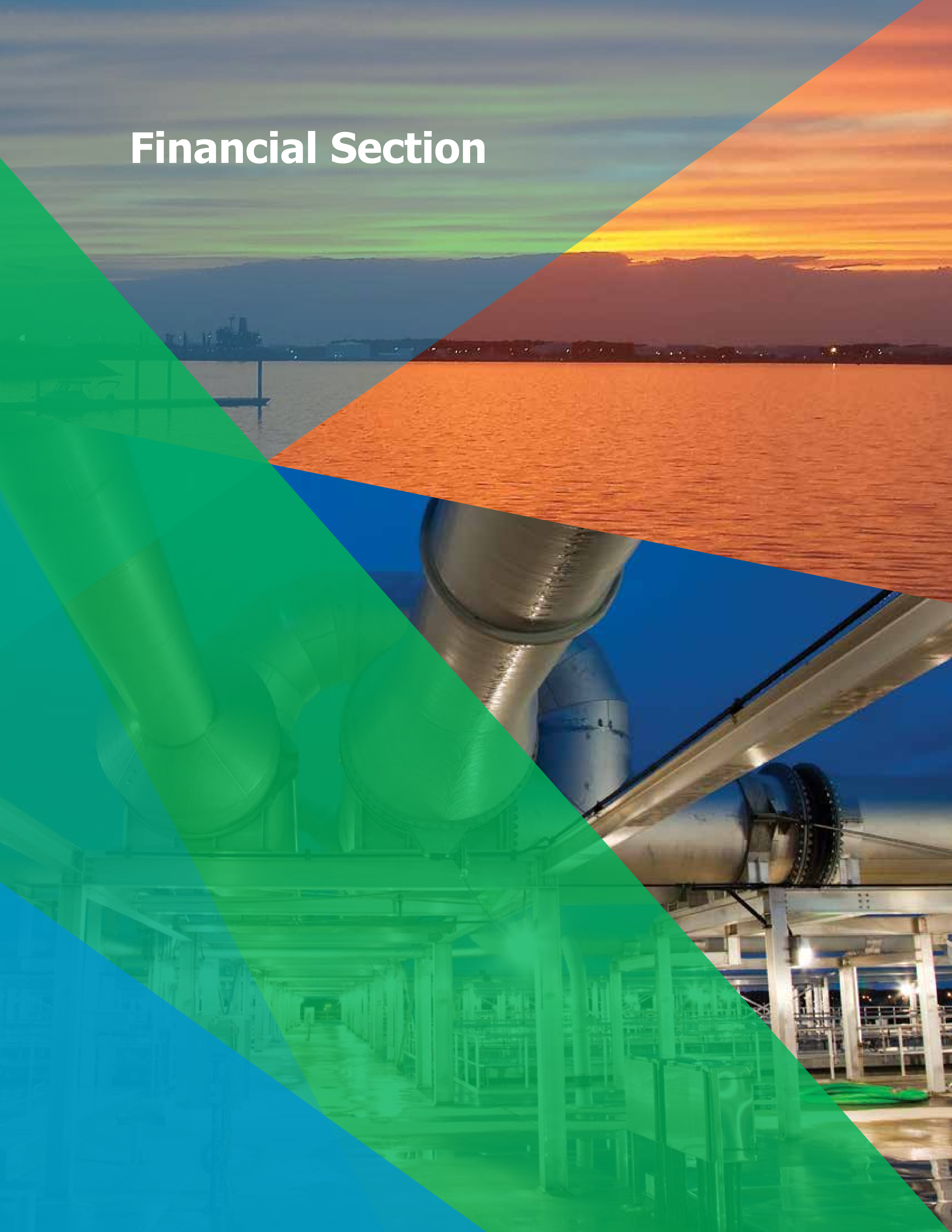
The Enabling Act provides for HRSD to operate as a political subdivision of the Commonwealth of Virginia for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants. Its affairs are controlled by a Commission of eight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

HRSD began operations on July 1, 1946, using facilities acquired from the United States Government. The Warwick County Trunk Sewer, HRSD's first construction project, began on June 26, 1946, and was funded by HRSD's $6.5 million Primary Pledge Sewer Revenue Bonds, dated March 1, 1946. The first treatment plant, the Army Base Plant, began operation on October 14, 1947. Since that time, the facilities of HRSD have grown to provide sanitary sewer service to all major population centers in southeastern Virginia. The population served has increased from nearly 288,000 in 1940 to about 1.7 million in 2019.

Throughout its rich history HRSD has earned many of its industry's most prestigious awards. This tradition continued as the National Association of Clean Water Agencies (NACWA) presented Peak Performance Awards for outstanding compliance with National Pollutant Discharge Elimination System (NPDES) permits to every HRSD treatment plant during the year ended June 30, 2019. The major treatment plants received the following awards in recognition of their outstanding permit compliance status: Atlantic—Gold, Boat Harbor—Platinum (17 consecutive years), Chesapeake-Elizabeth—Gold, James River—Platinum, Nansemond—Platinum (17 consecutive years), Virginia Initiative Plant—Platinum (23 consecutive years), Williamsburg—Platinum (24 consecutive years) and York River—Platinum (11 consecutive years). Four treatment plants in the Small Communities Division, Central Middlesex, King William Urbanna and West Point, earned Silver Awards while Lawnes Point and Surry received Gold Awards.

Additional awards and honors received during the year ended June 30, 2019 include NACWA National Achievement Awards in the categories of Workforce Development,and Operations and Environmental Performance. The SWIFT Research Center was named best project in the Water/Environment category from the Engineering News Record Mid-Atlantic Region. Honors and Awards received include NACWA National Achievement Awards in the following categories: Public Information and Education: E-Media; Operations and Environmental Performance; Workforce Development, and Research and Technology. The SWIFT Research Center also earned the 2019 Governor's Environmental Excellence Award, Gold Medal winner in the environmental project category.

Financial Section



Report of Independent Auditor

The Commissioners
Hampton Roads Sanitation District

Report on the Financial Statements

We have audited the accompanying financial statements of the Hampton Roads Sanitation District (hereafter referred to as "HRSD"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise HRSD's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of HRSD, as of June 30, 2019, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Prior Period Financial Statements
The financial statements of HRSD, as of and for the year ended June 30, 2018, were audited by other auditors whose report, dated November 27, 2018, expressed an unmodified opinion on those statements.

Change in Accounting Principle
As described in Note 14 to the financial statements, HRSD adopted new accounting guidance, Governmental Accounting Standards Board ("GASB") Statement No. 89, *Accounting for Interest Costs Incurred before the End of a Construction Period*, effective July 1, 2018. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the table contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information
Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the HRSD's basic financial statements. The Introductory, Other Supplemental, and Statistical Sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Other Supplemental Section is the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, Other Supplemental Section is fairly stated in all material respects in relation to the basic financial statements as a whole.

The Introductory and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Cherry Bekaert LLP

Virginia Beach, Virginia
November 22, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)

This narrative overview and analysis of the financial activities of the Hampton Roads Sanitation District (HRSD) for the fiscal years ended June 30, 2019 and 2018, is provided by HRSD's management. Readers of the accompanying financial statements are encouraged to consider this information in conjunction with that furnished in the letter of transmittal, which can be found on pages 1 through 3 of this report.

FINANCIAL HIGHLIGHTS

- Total net position increased $84.1 million, or 12.1 percent, in 2019 as a result of this year's operations.
- Total revenues increased $30.5 million, or 10.5 percent. This increase is primarily attributable to wastewater revenue rate increases and higher investment income.
- Operating expenses increased $1.7 million, or 0.8 percent, principally due to a $2.0 million increase in contractual services and a $1.3 million increase in major repairs. This was partially offset by $1.6 million decline in retirement expenses from the annual VRS reconciliation.
- Non-operating expenses increased $6.4 million, or 29.7 percent, primarily due to HRSD adopting GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period, effective July 1, 2018. This Statement establishes accounting requirements to expense interest cost incurred before the end of a construction period. Interest expense of $7.6 million was capitalized in 2018, but no interest was capitalized in 2019. The impact was partially offset by a $1.0 million reduction in bond issuance costs since no new revenue bonds were issued in 2019,
- HRSD received $2.8 million in capital grants and contributions in 2019, including $2.4 million from the Commonwealth of Virginia, to help finance its capital improvement program.
- Restricted cash and cash equivalents decreased $52.2 million, or 54.9 percent, primarily due to capital construction activity. Unrestricted cash and cash equivalents and investments increased $93.8 million, or 49.3 percent, primarily due to utilizing bond proceeds instead of cash to fund capital construction.
- Net Property, Plant and Equipment increased $36.7 million, or 2.8 percent, primarily due to expansion of treatment plants and interceptor systems.

OVERVIEW OF FINANCIAL STATEMENTS

HRSD's Basic Financial Statements are comprised of the financial statements and the notes to the financial statements. This report also contains required supplementary information and other supplementary information in addition to the Basic Financial Statements.

The Basic Financial Statements, found on pages 16 through 19 of this report, are designed to provide readers with a broad overview of HRSD's finances in a manner similar to a private sector business.

The Statements of Net Position, found on pages 16 and 17 of this report, present information on all of HRSD's assets, deferred outflows of resources, liabilities, and deferred inflows of resources; the difference between these components is reported as net position. Over time, changes in net position may serve as a useful indicator of whether the financial position of HRSD is improving or deteriorating.

The Statements of Revenues, Expenses and Changes in Net Position, found on page 18 of this report, present all of HRSD's revenues and expenses, showing how HRSD's net position changed during the year. All changes in net position are reported as soon as the underlying event takes place, thus giving rise to the changes, regardless of the timing of the cash flows. Thus, revenues and expenses are reported for some items that will only result in cash flows in future fiscal periods.

The Notes to Financial Statements, found on pages 20 through 52 of this report, provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the basic financial statements and the related notes, this report also presents certain required supplementary information concerning HRSD's progress in funding its obligations to provide pension and other postemployment benefits to its employees.

Required Supplementary Information can be found beginning on page 53 of this report.

FINANCIAL ANALYSIS

As noted earlier, net position may serve over time as a useful indicator of HRSD's financial position. Assets exceeded liabilities by $781.7 million at June 30, 2019 and by $697.6 million at June 30, 2018.

By far, the largest portion of HRSD's net position (62.7 percent and 73.4 percent at June 30, 2019 and 2018, respectively) reflects its net investment in capital assets (e.g. land, buildings, machinery and equipment) less any related debt used to acquire those assets still outstanding, net of unspent bond proceeds. HRSD uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although HRSD's net investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, because the capital assets themselves cannot be liquidated to reduce these liabilities.

HRSD's net position is summarized in the following condensed Statements of Net Position as of June 30:

HRSD's Condensed Statements of Net Position

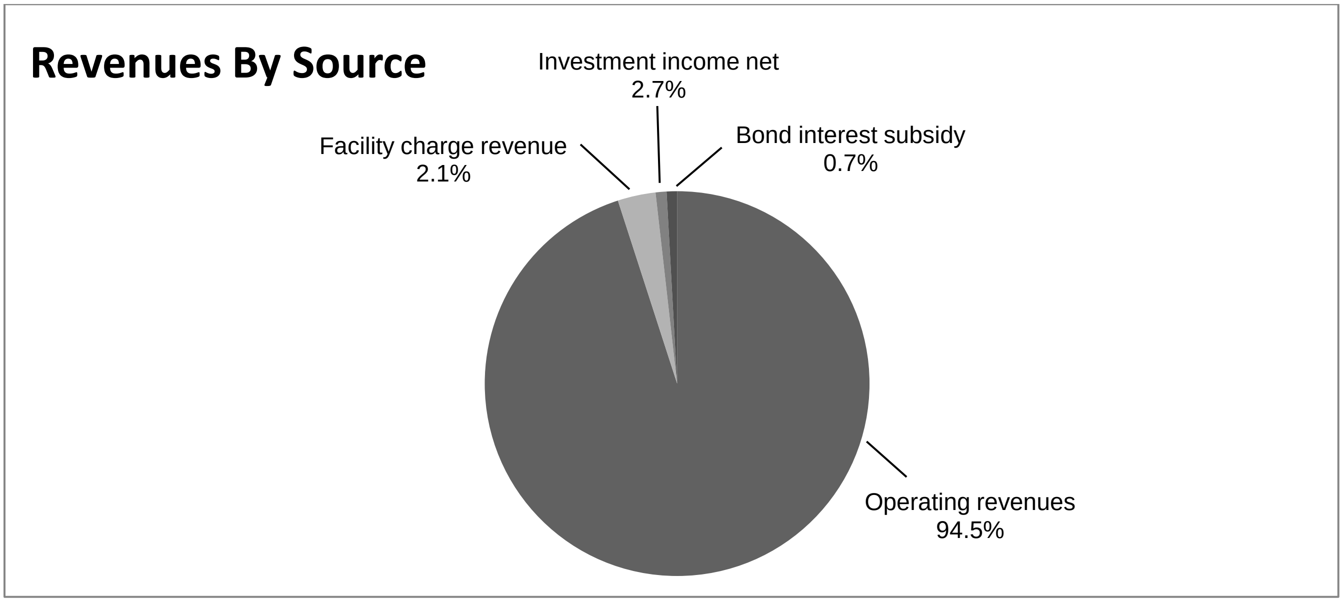
				2019 vs. 2018	
(in thousands)	2019	2018	2017	Dollars	Percent
Capital assets	$ 1,358,327	$ 1,321,644	$ 1,255,952	$ 36,683	2.8%
Current assets and noncurrent assets	399,840	357,699	310,534	42,141	11.8%
Total assets	**$ 1,758,167**	**$ 1,679,343**	**$ 1,566,486**	**$ 78,824**	**4.7%**
Deferred outflows of resources	**21,442**	**20,762**	**30,822**	**680**	**3.3%**
Long-term liabilities	$ 847,928	$ 850,928	$ 805,685	$ (3,000)	-0.4%
Current liabilities	140,564	139,914	134,353	650	0.5%
Total liabilities	**$ 988,492**	**$ 990,842**	**$ 940,038**	**$ (2,350)**	**-0.2%**
Deferred inflows of resources	**9,412**	**11,634**	**2,992**	**(2,222)**	**-19.1%**
Net investment in capital assets	$ 494,779	$ 512,398	$ 428,670	$ (17,619)	-3.4%
Restricted for debt service	28,553	27,799	22,701	754	2.7%
Unrestricted	258,373	157,432	202,907	100,941	64.1%
Total net position	**$ 781,705**	**$ 697,629**	**$ 654,278**	**$ 84,076**	**12.1%**

At June 30, 2019 and 2018 HRSD retained $14.3 million and $67.3 million, respectively, of unspent bond proceeds. The increase in capital assets and the corresponding changes in current assets and noncurrent investments from 2017 through 2019 are primarily the result of issuing bonds in 2017 and 2018 and using these proceeds to fund capital improvements.

The changes in HRSD's net position can be determined by reviewing the following condensed Statements of Revenues, Expenses and Changes in Net Position:

HRSD's Condensed Statements of Revenues, Expenses and Changes in Net Position

				2019 vs. 2018	
(in thousands)	2019	2018	2017	Dollars	Percent
Operating revenues	$ 303,121	$ 279,043	$ 258,630	$ 24,078	8.6%
Facility charge revenues	6,662	6,673	7,511	(11)	-0.2%
Investment income, net	8,719	2,272	1,168	6,447	283.8%
Bond interest subsidy	2,308	2,330	2,275	(22)	-0.9%
Total revenues	**320,810**	**290,318**	**269,584**	**30,492**	**10.5%**
Operating expenses:					
Wastewater treatment	117,189	116,982	113,100	207	0.2%
General and administrative	41,121	40,480	40,287	641	1.6%
Depreciation and amortization	53,225	52,349	49,311	876	1.7%
Total operating expenses	**211,535**	**209,811**	**202,698**	**1,724**	**0.8%**
Non-operating expenses:					
Bond issuance costs	53	1,061	42	(1,008)	-95.0%
Capital distributions to localities	-	311	138	(311)	-100.0%
Interest expense	27,964	20,226	22,630	7,738	38.3%
Total non-operating expenses	28,017	21,598	22,810	6,419	29.7%
Total expenses	**239,552**	**231,409**	**225,508**	**8,143**	**3.5%**
Income before capital contributions	81,258	58,909	44,076	22,349	37.9%
Capital contributions	2,818	4,626	8,598	(1,808)	-39.1%
Change in net position	84,076	63,535	52,674	20,541	32.3%
Total net position - beginning, as restated	697,629	634,094	601,604	63,535	10.0%
Total net position - ending	**$ 781,705**	**$ 697,629**	**$ 654,278**	**$ 84,076**	**12.1%**



Operating revenues increased 8.6 percent in 2019 and 7.9 percent in 2018. The majority of these increases are attributable to various rate increases in metered public wastewater services. Net investment income increased $6.4 million in 2019, or 283.8 percent, primarily due to higher interest rates and better investment returns on higher cash and investment balances, compared to a $1.1 million increase, or 94.5 percent, in 2018.

Operating expenses increased 0.8 percent in 2019 and 3.5 percent in 2018. Increases in 2019 were principally due a $2.0 million increase in contractual services and a $1.3 million increase in major repairs, which was partially offset by $1.6 million decline in retirement expenses from the annual VRS reconciliation. Increases in 2018 were principally due to a $3.1 million increase in contractual services, a $3.5 million increase in healthcare expense and a $3.0 million increase in depreciation expense.

In 2019 and 2018, HRSD received $2.8 million and $4.6 million, respectively, in capital grants and contributions to help finance its capital improvement program.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

At the end of 2019 and 2018 HRSD had approximately $1.4 billion and $1.3 billion, respectively, invested in a broad range of capital assets, including land, wastewater treatment plants, interceptor mains, pump stations, administrative and maintenance buildings, equipment and software. These amounts represent a net increase of $36.7 million, or 2.8 percent, in 2019 and $65.7 million, or 5.2 percent, in 2018.

The following summarizes HRSD's capital assets, net of accumulated depreciation, as of June 30:

HRSD's Capital Assets

(in thousands)	2019	2018	2017
Land	$ 12,174	$ 12,174	$ 12,174
Treatment plants	549,645	572,942	543,616
Interceptor systems	440,236	442,376	368,665
Buildings	29,617	31,186	32,354
Small community facilities	17,222	17,718	18,288
Office equipment	1,513	2,555	3,774
Automotive	1,941	2,092	2,070
Other equipment	6,007	8,171	10,345
Software and intangible assets	5,441	10,147	16,617
	1,063,796	1,099,361	1,007,903
Construction in progress	294,531	222,283	248,049
Net property, plant and equipment	**$ 1,358,327**	**$ 1,321,644**	**$ 1,255,952**

The following summarizes the changes in capital assets for the years ended June 30:

(in thousands)	2019	2018	2017
Balance at beginning of year	$ 1,321,644	$ 1,255,952	$ 1,200,404
Additions	17,661	143,807	47,631
Retirements	(1,050)	-	-
Depreciation and amortization	(53,226)	(52,349)	(49,311)
Accumulated depreciation retired	1,050	-	-
Net increase (decrease) in construction in progress	72,248	(25,766)	57,228
Balance at end of year	**$ 1,358,327**	**$ 1,321,644**	**$ 1,255,952**

The largest increase in capital assets in the past two years has been in treatment plant construction and interceptor system construction, which includes pipeline replacements, pump station rehabilitations and other improvements to the infrastructure. During 2019, HRSD invested significant funds in improvements to the Atlantic and Virginia Initiative treatment plants, the Atlantic and Chesapeake-Elizabeth interceptor systems, and the SWIFT program planning and development. During 2018, HRSD invested significant funds in improvements to the York River treatment plant, the Boat Harbor, James River, and Virginia Initiative interceptor systems, and the SWIFT Research Center. HRSD's total capital expenses were $95.7 million during 2019 and $127.7 million during 2018.

Long-Term Debt

At June 30, 2019, HRSD had a total of $891.6 million in revenue bonds outstanding versus $891.4 million in 2018, less than a 0.1 percent net increase. New subordinate wastewater revenue bonds, and draws on existing approved bonds, in the amount of $35.0 million, were partially offset by payments on and refunds of existing senior and subordinate debt and amortization of bond premiums.

The following summarizes HRSD's outstanding debt principal at June 30:

HRSD's Outstanding Debt

(in thousands, net of premium)	2019	2018	2017
Senior revenue bonds	$ 313,340	$ 332,141	$ 429,165
Subordinate revenue bonds	512,168	485,468	350,346
Total outstanding debt	**$ 825,508**	**$ 817,609**	**$ 779,511**

HRSD's financial strengths are reflected in its high credit ratings. In March 2018, HRSD was upgraded one notch by Moody's Investors Service:

Ratings Agency	Senior Debt	Subordinate Long-term	Subordinate Short-term
Standard & Poor's	AA+	AA	A-1+
Fitch Ratings	AA+	AA	F1+
Moody's Investors Service	Aa1	Aa2	n/a

The development of HRSD's Capital Improvement Program and its related debt programs are governed by revenue Trust Agreements. The Senior Trust agreement requires the senior debt coverage to be 1.2 times maximum annual debt service and total debt service coverage of 1.0 times maximum annual debt service, both on a Generally Accepted Accounting Principles (GAAP) basis. The Amended and Subordinate Trust agreement was amended in 2016 to account for future Consent Decree expenses related to Locality wet weather improvements that HRSD will not own. In the Amended Trust, Operating Expenses were redefined as shown below for the purposes of calculating an "Adjusted" debt service coverage on a cash basis:

> "Operating Expenses" as defined by the Enabling Act and as used in the Senior Trust Agreement, operating expenses includes the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves therefor as may be provided in the resolution providing for the issuance or such revenue bonds or in the trust agreement securing the same. As defined in the Subordinate Trust Agreement, Operating Expenses includes those expenses required to pay the cost of maintaining, repairing and operating the Wastewater System, including, but not limited to, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the Wastewater

System, insurance premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program. Operating Expenses shall exclude allowance for depreciation and amortization and expenditures for extraordinary maintenance or repair or improvements. Operating Expenses shall also exclude expenses for improvements that will not be owned by HRSD but which will, in the reasonable determination of the Commission, as evidenced by a resolution thereof, maintain or improve the integrity of the Wastewater System.

The Amended and Subordinate Trust agreement requires total debt service coverage to be 1.2 times current year debt service on an Adjusted basis. HRSD's Financial Policy and operating and capital improvement plans were developed with the intent to maintain coverage ratios in excess of these requirements. HRSD's Financial Policy requires senior debt service coverage to be 1.5 times and total debt service coverage to be 1.4 times.

	Senior Debt Service Coverage		**Total Debt Service Coverage**	
	GAAP	**Adjusted**	**GAAP**	**Adjusted**
Senior Trust Agreement	1.20x (MADS)	None	1.00x (MADS)	None
Amended Subordinate Trust Agreement	None	None	None	1.20x (Current Year)
Financial Policy	None	1.50x (Current Year)	None	1.40x (Current Year)

More detailed information regarding HRSD's capital assets and long-term debt is presented in Notes 5 and 9, respectively.

ECONOMIC FACTORS AND RATES

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 113 million gallons per day (MGD) to approximately 111 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

In 2019, wastewater revenues increased as a result of planned rate increases needed, in large part, to fund HRSD's capital improvement program. Facility charge revenues decreased $11,000, or 0.2 percent, in 2019 and $0.8 million, or 11.2 percent, in 2018, due to a decrease in new construction activity across the region. Facility charge revenues comprised only 2.1 and 2.3 percent of HRSD's total revenues in 2019 and 2018, respectively.

Wastewater treatment rates for the 2019 fiscal year were increased by approximately 9 percent at the beginning of the year for the vast majority of HRSD customers. The increases are necessary to meet growing capital improvement needs and the increased cost of treatment operations.

It is anticipated that the average residential customer bill will rise by less than 10 cents per day in fiscal year 2020.

CONTACTING HRSD'S FINANCIAL MANAGEMENT

This financial report is designed to provide a general overview of HRSD's finances for all those with an interest. Questions concerning the information provided in this report or any requests for additional information should be addressed to the Director of Finance, 1434 Air Rail Avenue, Virginia Beach, Virginia 23455.

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

(in thousands)

	2019	2018
CURRENT ASSETS		
Cash and cash equivalents	$ 155,453	$ 66,078
Cash and cash equivalents - Restricted	42,888	44,718
Investments	-	17,871
Accounts receivable, net	42,977	41,908
Accrued interest	-	447
Other current assets	3,105	2,582
TOTAL CURRENT ASSETS	244,423	173,604
NON-CURRENT ASSETS		
Cash and cash equivalents	128,530	-
Cash and cash equivalents - Restricted	-	50,359
Investments	-	106,219
Inventory	26,887	27,517
	155,417	184,095
NET PROPERTY, PLANT AND EQUIPMENT		
Land	12,174	12,174
Treatment plants	1,248,897	1,242,191
Interceptor systems	619,068	609,416
Buildings	49,132	49,132
Small community facilities	25,625	25,549
Office equipment	44,613	44,613
Automotive	18,540	18,986
Other equipment	36,887	36,589
Software and intangible assets	40,074	39,749
	2,095,010	2,078,399
Less: Accumulated depreciation and amortization	1,031,214	979,038
	1,063,796	1,099,361
Construction in progress	294,531	222,283
NET PROPERTY, PLANT AND EQUIPMENT	1,358,327	1,321,644
TOTAL NON-CURRENT ASSETS	1,513,744	1,505,739
TOTAL ASSETS	1,758,167	1,679,343
DEFERRED OUTFLOWS OF RESOURCES		
Deferred loss on debt refunding, net	13,745	14,918
Differences between pension plan expected and actual experience	1,251	1,827
Differences between OPEB expected and actual experience	3,154	-
Net difference between pension plan projected and actual earnings on pension plan investments	-	-
Change in proportion, OPEB plans	51	28
Contributions subsequent to the measurement date:		
OPEB plans	375	354
Pension plan	2,866	3,635
TOTAL DEFERRED OUTFLOWS OF RESOURCES	21,442	20,762
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	**$ 1,779,609**	**$ 1,700,105**

(continued)

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION

(in thousands)

	2019	2018
CURRENT LIABILITIES		
Trade and contracts payable	$ 25,526	$ 23,281
Contract retention	4,164	7,886
Accrued salaries and wages	2,703	2,476
Current portion of bonds payable	34,950	33,601
Variable rate demand bonds	50,000	50,000
Current portion of compensated absences	5,888	5,541
Debt interest payable	11,402	11,664
Other liabilities	5,931	5,465
TOTAL CURRENT LIABILITIES	140,564	139,914
LONG-TERM LIABILITIES		
Compensated absences	2,201	2,863
Net OPEB liability	18,744	18,149
Net pension liability	20,304	22,075
Bonds payable	806,679	807,841
TOTAL LONG-TERM LIABILITIES	847,928	850,928
TOTAL LIABILITIES	988,492	990,842
DEFERRED INFLOWS OF RESOURCES		
Differences between expected and actual experience:		
OPEB plans	71	87
Pension plan	2,951	4,519
Changes of assumptions:		
OPEB plans	1,610	221
Pension plan	2,250	3,113
Net difference between projected and actual earnings on:		
OPEB plan investments	828	867
Pension plan investments	1,702	2,827
TOTAL DEFERRED INFLOWS OF RESOURCES	9,412	11,634
NET POSITION		
Net investment in capital assets	494,779	512,398
Restricted for debt service	28,553	27,799
Unrestricted	258,373	157,432
TOTAL NET POSITION	781,705	697,629
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	**$ 1,779,609**	**$ 1,700,105**

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 and 2018

(in thousands)

	2019	2018
OPERATING REVENUES		
Wastewater treatment charges	$ 299,323	$ 275,539
Miscellaneous	3,798	3,504
TOTAL OPERATING REVENUES	303,121	279,043
OPERATING EXPENSES		
Wastewater treatment	117,189	116,982
General and administrative	41,121	40,480
Depreciation and amortization	53,225	52,349
TOTAL OPERATING EXPENSES	211,535	209,811
OPERATING INCOME	91,586	69,232
NON-OPERATING REVENUES (EXPENSES)		
Wastewater facility charges	6,662	6,673
Investment income	8,719	3,654
Bond interest subsidy	2,308	2,330
Change in fair value of investments	-	(1,382)
Capital distributions to localities	-	(311)
Bond issuance costs	(53)	(1,061)
Interest expense	(27,964)	(20,226)
NET NON-OPERATING EXPENSES	(10,328)	(10,323)
INCOME BEFORE CAPITAL CONTRIBUTIONS	81,258	58,909
CAPITAL CONTRIBUTIONS		
State capital grants received	2,444	2,502
Other capital contributions	374	2,124
CAPITAL CONTRIBUTIONS	2,818	4,626
CHANGE IN NET POSITION	84,076	63,535
TOTAL NET POSITION - Beginning	697,629	654,278
Opening adjustment of net position (Note 14)	-	(20,184)
TOTAL NET POSITION - Ending	**$ 781,705**	**$ 697,629**

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 and 2018

(in thousands)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	$ 301,230	$ 274,994
Other operating revenues	3,798	3,504
Cash payments to suppliers for goods and services	(108,500)	(107,556)
Cash payments to employees for services	(56,424)	(54,894)
Net cash provided by operating activities	140,104	116,048
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Capital distributions to localities	-	(311)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Wastewater facility charges	6,662	6,673
Acquisition and construction of property, plant and equipment	(92,514)	(105,864)
Proceeds from capital debt	35,040	78,465
Bond interest subsidy	2,308	2,330
Principal paid on capital debt	(27,141)	(25,962)
State capital grants	2,444	3,275
Other capital contributions	374	2,124
Bond issuance costs	(53)	(1,061)
Interest paid on capital debt	(34,764)	(31,208)
Net cash used in capital and related financing activities	(107,644)	(71,228)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of investments	-	(70,584)
Sales and maturities of investments	124,090	68,799
Interest and dividends on investments	9,166	3,654
Net cash provided by investing activities	133,256	1,869
NET INCREASE IN CASH AND CASH EQUIVALENTS AND CASH AND CASH EQUIVALENTS - RESTRICTED	165,716	46,378
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT BEGINNING OF YEAR	161,155	114,777
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT END OF YEAR	$ 326,871	$ 161,155

Reconciliation of Operating Income to Net Cash Provided by Operating Activities

(in thousands)

	2019	2018
Operating income	$ 91,586	$ 69,232
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	53,225	52,349
(Increase) decrease in operating assets		
Accounts receivable	(1,069)	(2,281)
Inventory	630	835
Net change in other current assets	(523)	289
Increase (decrease) in operating liabilities		
Trade and contracts payable	1,128	(1,529)
Accrued salaries and wages	227	265
Compensated absences	(315)	1
Net change in other liabilities	466	400
OPEB liabilities	(1,269)	(1,242)
Pension liabilities	(3,982)	(2,271)
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ 140,104	$ 116,048
Noncash Capital and Related Financing Activities:		
Proceeds of refunding debt principal	$ -	$ 86,075
Refunding of debt principal	-	(86,075)
Accrual for capital expenditures	2,576	4,596
Amortization of premium	(7,712)	(6,716)
Amortization of deferred loss on bond refunding	(1,173)	(1,542)

See Accompanying Notes to Financial Statements

NOTE 1 - GENERAL INFORMATION

Organization and Administration

The Hampton Roads Sanitation District (HRSD) was created by the Virginia General Assembly in 1940, as a political subdivision of the Commonwealth of Virginia (the Commonwealth), to construct, maintain, and operate a wastewater treatment system in the Hampton Roads area. The Hampton Roads Sanitation District Commission (the Commission) is HRSD's governing body and consists of eight members, appointed by the Governor. The Commission's functions were updated by Chapter 66 of the Acts of the Assembly of Virginia of 1960, as amended. The administration of HRSD is under the direction of a General Manager, supported by seven department directors.

Regulatory Oversight

HRSD's operations are subject to regulations established by the United States Environmental Protection Agency and the Virginia Department of Environmental Quality. HRSD currently meets all of its permit requirements. Changes in these regulations could require HRSD to modify its treatment processes and require additional capital investment and/ or incur additional costs.

Purpose of HRSD

HRSD was created for the specific purpose of abating pollution in the Hampton Roads area through the interception of wastewater outfalls, installation of interception service into new areas as necessary and providing treatment facilities. HRSD provides points of interception throughout the region. The responsibility of providing lateral sewers and subtrunk facilities to carry sewage from industries, residences and businesses is generally the responsibility of the local municipal governments.

Corporate Limits of HRSD

The geographical limits of HRSD include:

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

*Excluding the Town of Claremont

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

HRSD is a political subdivision of the Commonwealth and a government instrumentality. The Commission is granted corporate powers by the *Code of Virginia*. The Governor of the Commonwealth appoints the Commission members, who serve at his pleasure. HRSD is reported in the Commonwealth's Comprehensive Annual Financial Report as a discretely presented component unit. The Commonwealth is not obligated to repay HRSD's debt. HRSD derives its revenues primarily from charges for wastewater treatment services. HRSD has no taxing authority.

Basis of Accounting

The accompanying financial statements report the financial position and results of operations of HRSD in accordance with U.S. generally accepted accounting principles (GAAP). Because HRSD is a political subdivision of the Commonwealth, the preparation of HRSD's financial statements are governed by the pronouncements of the Governmental Accounting Standards Board (GASB). These statements are prepared on an enterprise fund basis and present HRSD's operating revenues and expenses in a manner similar to a private business, where the costs, including depreciation, of providing services to the general public on a continuing basis are financed or recovered primarily through user charges.

An enterprise fund, a proprietary fund type, is accounted for on an economic resources measurement focus. All assets and liabilities, whether current or noncurrent, associated with its activities are included on its statements of net position. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in fund equity. The financial statements are presented using the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred.

Budgetary Accounting and Control

HRSD operates in accordance with annual operating and capital budgets prepared on a basis of accounting that is different from generally accepted accounting principles. The operating budget is adopted by department, with budgetary controls exercised administratively by management at the department level. The General Manager is authorized to transfer funds among departments without further approval by the Commission. Appropriations lapse at the end of the fiscal year. The Capital Budget represents a ten-year plan. Funds for the Capital Budget are appropriated throughout a fiscal year on a project basis. Transfers among projects require approval by the Commission. Appropriations for these budgets continue until the purpose of the appropriation has been fulfilled.

Cash Equivalents

All short-term investments that are highly liquid are considered to be cash equivalents. Cash equivalents are readily convertible to cash, and at the day of purchase, have an original maturity date of no longer than three months. Current restricted cash and cash equivalents are revenue bond proceeds held for construction of assets within the next 12 months, as well as cash restricted for debt service payments payable within the next year. Money market investments include accounts that are invested in government securities and are valued at net asset value (NAV), the Commonwealth of Virginia Local Government Investment Pool (LGIP), which is measured at amortized cost, and the VACo/VML Virginia Investment Pool's (VIP) 1-3 Year High Quality Bond Fund and Stable NAV Liquidity Pool, which are recorded at amortized cost, which approximates fair value. See Note 3 and Note 13 for additional discussion of cash and cash equivalent and investment valuations. Noncurrent restricted cash and cash equivalents are revenue bond proceeds held for the construction of noncurrent assets expected to be spent after 12 months (see Note 3).

Investments

Investments, which consist of U.S. government obligations including agencies, FDIC-guaranteed corporate notes, other corporate notes and bonds, and municipal bonds, are reported at fair value. HRSD's investment practices are governed by its formal investment policy.

Allowance for Uncollectible Accounts

HRSD provides an allowance for estimated uncollectible accounts receivable based on its bad debt experience. The balance in the allowance for uncollectible accounts is considered by management to be sufficient to cover anticipated losses on reported receivable balances.

Inventories

Inventories consist primarily of fuel and maintenance parts. Inventories are carried at cost or average cost.

Property, Plant and Equipment

HRSD funds its capital improvement program through the issuance of debt and its own resources. The proceeds of debt are reported as restricted assets. Generally, for projects funded with both debt proceeds and other resources, it is HRSD's policy to use available debt proceeds to pay project expenditures prior to using its own resources.

Property, plant and equipment purchased or constructed are reported at cost, which included interest cost on funds borrowed to finance the construction of major capital additions through June 30, 2018. See New Accounting Pronouncements, below. The capitalization threshold is $5,000. Donated assets are reported at acquisition value at the date of donation. Property, plant and equipment are depreciated using the straight-line method over the following estimated useful lives:

Treatment plants, buildings and facilities	30 years
Interceptor systems	50 years
Office furniture and equipment	5-10 years
Software and intangible assets	5-7 years
Automotive	5 years

Depreciation and amortization recognized on property, plant and equipment is an operating expense.

Deferred Outflows and Inflows of Resources

In addition to assets, the statements of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expenses) until then. HRSD has six items that qualify for reporting in this category. The first is the deferred charge on refunding reported in the statements of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The second through fourth amounts are differences between expected and actual experience on the OPEB and pension plans; the net difference between OPEB expected and actual experience; and the change in proportion for OPEB plans. These differences will be recognized in pension expense in future reporting periods. The fifth and sixth deferred charges are for OPEB and pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2018 and 2017. These contributions will be recognized as reductions of the Net OPEB and Net Pension Liabilities during the years ended June 30, 2020 and 2019, respectively.

In addition to liabilities, the statements of net position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The three types of these items that HRSD has for the OPEB and pension plans are the differences between expected and actual experience, the changes of OPEB and pension assumptions, and the net difference between projected and actual earnings on OPEB and pension plan investments, which will be recognized in pension expense in future reporting periods.

Revenue Recognition

Generally, wastewater treatment charges are computed based on a user's water consumption. These charges are recognized as revenue when billed. Revenues earned but unbilled through June 30 of each fiscal year are accrued at year-end. Wastewater facility charges are computed based on a new connection's water meter size and potential for high strength pollutant discharges, and are recognized as revenue prior to the issuance of a building or operating permit.

Operating and Non-operating Revenues and Expenses Recognition

HRSD distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses result from providing services and producing and delivering goods in connection with HRSD's principal service of providing wastewater treatment. The majority of operating revenues are from wastewater treatment, but other associated miscellaneous income from other related services and charges are also included. Revenues and expenses not meeting the operating definition are reported as non-operating. These consist mainly of wastewater facility charges, investment income, capital contributions and interest expense.

Compensated Absences

All permanent employees earn leave upon starting a full-time position. The amount and type of leave earned is based upon the employee's date of hire and years of service and is expensed as employees earn the right to these benefits.

Permanent employees hired prior to January 1, 2014 earn from 15 to 27 days of annual leave per year. The maximum annual leave an employee may accumulate at year-end varies by the years of service, with the maximum being 54 days. An employee has a vested right to their annual leave when earned. These employees also earn eight hours per month of sick leave regardless of the number of years of service. The amount of sick leave that may be accumulated is unlimited. After five years of service with HRSD, an employee has vested rights to 35 percent of accumulated sick leave to a maximum of $10,000. For these employees, long-term disability (LTD) insurance is an optional employee paid benefit that replaces part of their income if the employee suffers a serious illness or injury and can't work for an extended period of time.

Permanent employees hired after January 1, 2014 earn 8 hours of paid time off for each two-week pay period. Employees may use accumulated paid time off for any type of absence from work, subject to supervisor approval. The maximum paid time off an employee may accumulate at year-end is 208 hours. After five years of service with HRSD, an employee has vested rights to 50 percent of their accumulated paid time off at separation. For these employees, HRSD also provides a state mandated long-term disability (LTD) benefit since these employees are not eligible for disability retirement benefits through Virginia Retirement System. The long-term disability benefit provides income replacement for employees who become disabled and unable to work for an extended period of time due to a non work-related or work-related condition (as determined under the Virginia Workers' Compensation Act). Long-term disability benefits begin at the expiration of an additional state mandated employer paid short-term disability (STD) benefit period of 125 days.

Postemployment Benefits Other Than Pensions (OPEB)

HRSD employees participate in three postemployment benefits other than pensions (other postemployment benefits or OPEB) plans:

The HRSD Retiree Health Plan (RHP) is a single employer, defined benefit plan that provides health and dental benefit plans for eligible members through a self-funded plan administered by a third-party vendor. HRSD administers the Plan through the Hampton Roads Sanitation District Retiree Health Trust. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the RHP and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by the RHP. For this purpose, the RHP recognizes benefit payments when due and payable in accordance with the benefit terms.

The Virginia Retirement System (VRS) Political Subdivision Health Insurance Credit Program (HIC) is a multiple-employer, agent defined benefit plan that provides a credit toward the cost of health insurance coverage for retired political subdivision employees of participating employers. The Political Subdivision Health Insurance Credit Program was established pursuant to §51.1-1400 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. For purposes of measuring the net HIC OPEB liability, deferred outflows of resources and deferred inflows of resources related to the HIC OPEB, and the HIC OPEB expense, information about the fiduciary net position of the VRS HIC; and the additions to/deductions from the VRS HIC's fiduciary net position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The VRS Group Life Insurance Program is a multiple-employer, costsharing plan, that provides coverage to state employees, teachers, and employees of participating political subdivisions. The Group Life Insurance Program was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Group Life Insurance Program is a defined benefit plan that provides a basic group life insurance benefit for employees of participating employers. For purposes of measuring the net Group Life Insurance Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Group Life Insurance Program OPEB, and Group Life Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Group Life Insurance program OPEB and the additions to/deductions from the VRS Group Life Insurance Program OPEB's fiduciary net position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Pensions

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the VRS, which acts as a common investment and administrative agent for political subdivisions in the Commonwealth. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of HRSD's Retirement Plan and the additions to or deductions from HRSD's Retirement Plan's net fiduciary position have been determined on the same basis as they were reported to HRSD by VRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

Use of Estimates

The preparation of these financial statements requires management to make estimates and assumptions. These estimates affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from management's estimates.

New Accounting Pronouncements

During the fiscal year ended June 30, 2019, HRSD adopted GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period,* effective July 1, 2018. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period, and replaces the requirements of GASB Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are applied prospectively, so no adjustment to net position was required.

Also during the fiscal year ended June 30, 2019, HRSD adopted GASB Statement No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements, effective July 1, 2018. This Statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings (for example, a government entering into a loan agreement with a lender) and direct placements (for example, a government issuing a debt security directly to an investor). Direct borrowings and direct placements have terms negotiated directly with the investor or lender and are not offered for public sale. The requirements of this Statement apply to the financial statements of all state and local governments.

During the fiscal year ended June 30, 2018, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended; and GASB Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. The objective of Statement No. 75 is to improve the usefulness of information for decisions made by the various users of the general purpose external financial reports (financial reports) of governments whose employees, both active employees and inactive employees, are provided with postemployment benefits other than pensions. As a result of the adoption of Statement No. 75, HRSD has made an adjustment to net position as of July 1, 2017, to recognize the cumulative effect of the change in accounting for pensions as further discussed in Note 14.

NOTE 3 - DEPOSITS AND INVESTMENTS

Deposits

Custodial Credit Risk. This risk is associated with the inability of a governmental entity to recover deposits from a financial institution in the event of a failure. At June 30, 2019 and 2018, the carrying values of HRSD's deposits were $20,346,000 and $24,753,000, respectively, and the bank balances were $29,940,000 and $27,446,000, respectively. All of the bank balances at June 30, 2019 were covered by federal depository insurance or collateralized in accordance with the Virginia Security for Public Deposits Act (the Act). In accordance with the Act, the depository institution pledged collateral in the form of federal obligations with a fair value equal to 110 percent of HRSD’s deposits with a third party trustee in the name of the Treasurer of the Commonwealth. In the event that the banking institution fails, the Treasurer will take possession of the collateral, liquidate it and reimburse HRSD up to the value of its deposits. The State Treasury Board is responsible for monitoring compliance with the collateralization and reporting requirements of the Act and for notifying local governments of compliance by banks.

Credit Risk. HRSD invests overnight in money market accounts that are invested in government securities and the State Non-Arbitrage Program (SNAP) Fund Class and the Commonwealth of Virginia Local Government Investment Pool (LGIP) in FY2018. In 2018, HRSD invested highly liquid funds in the LGIP and less liquid funds in a 1-3 year duration fund managed by PFM. Oversight for SNAP and LGIP is provided by the Treasury Board of Virginia. In FY2019, HRSD divested investments managed by PFM and LGIP and invested in VACo/VML Virginia Investment Pool’s (VIP) 1-3 Year High Quality Bond Fund and Stable NAV Liquidity Pool. Oversight is provided by the VACo/VML Board of Trustees. HRSD’s investments in the VIP 1-3 Year High Quality Bond Fund and the VIP Stable NAV Liquidity Pool were rated AA+f/S1 and AAAm, respectively, by Standard & Poor’s, and HRSD’s investment in the LGIP was rated AAAm by Standard & Poor’s.

Investments

At June 30, 2019, all funds were held as cash and cash equivalents. As of June 30, 2018, HRSD had the following investments and maturities:

(in thousands)		Investment Maturities (in years)	
As of June 30, 2018	Fair Value	Less Than 1	1-3
Investment Type			
U.S. Treasury Securities	$ 53,627	$ 2,998	$ 50,629
Federal Agency Notes / Bonds	26,918	3,611	23,307
Certificates of Deposit	7,324	2,439	4,885
Commercial Paper	4,921	4,921	-
Corporate Notes / Bonds	20,633	3,902	16,731
Municipal Bonds	1,452	-	1,452
Supranationals	9,215	-	9,215
Total	$ 124,090	$ 17,871	$ 106,219

Interest Rate Risk. In accordance with its investment policy, HRSD manages its exposure to declines in fair values by limiting the weighted average maturity of various portfolios in a manner that meets HRSD's liquidity needs.

Custodial Credit Risk. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustees for its investments, the Bank of New York Trust Department and the US Bank Trust Department, as recipients of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2019 and 2018, the Trust Department of the Bank of New York held approximately $14,335,000 and $67,278,000, respectively, in investments in the Trustee's name for HRSD. At June 30, 2019, all funds were held as cash and cash equivalents. As of June 30, 2018, the Trust Department of US Bank held approximately $124,090,000 in investments in the Trustee's name for HRSD. HRSD divested all government security investments under US Bank in FY2019, therefore at June 30, 2019, US Bank has zero investments in the Trustee's name for HRSD.

Credit Risk. HRSD's Trust Agreement permits HRSD to invest in investment instruments that are authorized by the Commonwealth. At June 30, 2019, all funds were held as cash and cash equivalents. HRSD's year ending June 30, 2018, investment securities using the Standard & Poor's credit quality ratings scale are presented below:

As of June 30, 2018	Standard & Poor's Credit Rating by Investment Type							
(in thousands)	AAA	AA+	AA	AA-	A+	A-1+	A-1	Total
Investments								
U.S. Treasury Securities	$ -	$ 53,627	$ -	$ -	$ -	$ -	$ -	$ 53,627
Federal Agency Notes / Bonds	-	26,918	-	-	-	-	-	26,918
Certificates of Deposit	-	-	-	4,885	-	2,439	-	7,324
Commercial Paper	-	-	-	-	-	-	4,921	4,921
Corporate Notes / Bonds	1,318	5,218	2,731	11,366	-	-	-	20,633
Municipal Bonds	-	-	-	1,452	-	-	-	1,452
Supranationals	9,215	-	-	-	-	-	-	9,215
Total Investments	**$ 10,533**	**$ 85,763**	**$ 2,731**	**$ 17,703**	**$ -**	**$ 2,439**	**$ 4,921**	**$ 124,090**

Concentration of Credit Risk. HRSD's investment policy includes a maximum exposure for each individual issuer for its permitted investment categories. U.S. Treasury obligations, collateralized bank deposits, money market funds and local government investment pools, however, are not subject to these issuer limits. Federal agency obligations and repurchase agreements are limited to 35 percent per issuer. Municipal obligations, commercial paper, and bankers acceptances are limited to 5 percent per issuer. Corporate notes and negotiable certificates of deposit are limited to 3 percent per issuer.

The change in fair value for the years ended June 30:

(in thousands)	2019	2018
Fair value of investments, end of year	$ -	$ 124,090
Add: Proceeds of investments sold or maturing during the year	124,090	68,799
Less: Cost of investments purchased during the year	-	(70,584)
Less: Fair value of investments, beginning of year	(124,090)	(123,687)
Change in fair value of investments	$ -	$ (1,382)

The components of restricted cash and cash equivalents and investments at June 30 are as follows:

(in thousands)	2019	2018
Debt service	$ 28,553	$ 27,799
Revenue bond construction funds - current	14,335	16,919
Revenue bond construction funds - noncurrent	-	50,359
Total cash and cash equivalents - restricted	$ 42,888	$ 95,077

HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, US Bank. Investments are reported at fair value. HRSD's OPEB investment practices are governed by its formal investment policy.

As of June 30, 2019 and 2018, the plan had the following investments and maturities:

International equity	10,896	10,301
Fixed income	19,428	17,227
Other Income	1,175	-
Money market	171	29
Total Investments	$ 52,025	$ 47,103

Fixed income investments have an average maturity of 6.9 years and an average credit quality of A. Other investments do not have a stated maturity or credit rating.

Custodial Credit Risk. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustee for its investments the US Bank Trust Department, as recipient of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2019, the Trust Department of the US Bank held approximately $52,025,000 in investments in the Trustee's name for HRSD.

NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

An analysis of the allowance for uncollectible accounts for the years ended June 30:

(in thousands)	2019	2018
Balance, beginning of year	$ 2,180	$ 2,445
Add: Current provision for uncollectible accounts	2,976	1,736
Less: Charge-off of uncollectible accounts	(2,467)	(2,001)
Balance, end of year	$ 2,689	$ 2,180

HRSD's collection ratios for the years ended June 30, 2019 and 2018 were 99.2 and 99.3 percent, respectively.

NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment activity for the years ended June 30:

(in thousands)	Balance 6/30/17	Additions	Transfers/ Retirements	Balance 6/30/18	Additions	Transfers/ Retirements	Balance 6/30/19
Non-Depreciable Capital Assets							
Land	$ 12,174	$ -	$ -	$ 12,174	$ -	$ -	$ 12,174
Construction in progress	248,049	115,647	(141,413)	222,283	89,225	(16,977)	294,531
Depreciable Capital Assets							
Treatment plants	1,184,198	57,993	-	1,242,191	6,706	-	1,248,897
Interceptor systems	525,473	83,943	-	609,416	9,652	-	619,068
Buildings	48,735	397	-	49,132	-	-	49,132
Small community facilities	25,529	20	-	25,549	76	-	25,625
Office equipment	44,613	-	-	44,613	-	-	44,613
Automotive	18,180	806	-	18,986	603	(1,049)	18,540
Other equipment	36,066	523	-	36,589	298	-	36,887
Software and intangible assets	39,624	125	-	39,749	325	-	40,074
Total	$ 2,182,641	$ 259,454	$ (141,413)	$ 2,300,682	$ 106,885	$ (18,026)	$ 2,389,541
Less accumulated depreciation and amortization							
Treatment plants	(640,582)	(28,667)	-	(669,249)	(30,003)	-	(699,252)
Interceptor systems	(156,808)	(10,232)	-	(167,040)	(11,792)	-	(178,832)
Buildings	(16,381)	(1,565)	-	(17,946)	(1,569)	-	(19,515)
Small community facilities	(7,241)	(590)	-	(7,831)	(572)	-	(8,403)
Office equipment	(40,839)	(1,219)	-	(42,058)	(1,042)	-	(43,100)
Automotive	(16,110)	(784)	-	(16,894)	(754)	1,049	(16,599)
Other equipment	(25,721)	(2,697)	-	(28,418)	(2,462)	-	(30,880)
Software and intangible assets -amortization	(23,007)	(6,595)	-	(29,602)	(5,031)	-	(34,633)
Total	(926,689)	(52,349)	-	(979,038)	(53,225)	1,049	(1,031,214)
Net property, plant and equipment	$ 1,255,952	$ 207,105	$ (141,413)	$ 1,321,644	$ 53,660	$ (16,977)	$ 1,358,327

Additions include $7,581,000 of capitalized interest during the year ended June 30, 2018. As described in Note 2, HRSD adopted GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period, effective July 1, 2018, therefore, no interest was capitalized in the fiscal year ending June 30, 2019.

NOTE 6 - COMPENSATED ABSENCES

The liability for vested annual, sick, paid time off and compensatory leave at June 30:

(in thousands)	Balance 6/30/17	Earned	Taken	Balance 6/30/18	Earned	Taken	Balance 6/30/19
Annual leave	$ 5,052	$ 3,191	$ (3,354)	$ 4,889	$ 3,409	$ (3,454)	$ 4,844
Sick leave	2,779	1,422	(1,372)	2,829	1,408	(1,398)	2,839
Paid time off	572	929	(815)	686	756	(1,036)	406
Total	8,403	$ 5,542	$ (5,541)	8,404	$ 5,573	$ (5,888)	8,089
Less: Current liability	5,279			5,541			5,888
Long-term liability	$ 3,124			$ 2,863			$ 2,201

NOTE 7 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

Plan Descriptions

As discussed in Note 2, HRSD provides postemployment benefits other than pensions (OPEB) for its employees through three OPEB plans: the Hampton Roads Sanitation District Retiree Health Plan (RHP), a single employer defined benefit plan, and two plans administered by the Virginia Retirement System, the Group Life Insurance Plan (GLI), a multiple-employer cost sharing plan, and the Political Subdivision Health Insurance Credit Plan (HIC), a multiple-employer, agent defined benefit plan.

RHP

The RHP was established and may be amended by the Commission. HRSD administers the RHP through the Hampton Roads Sanitation District Retiree Health Trust (the Trust), an irrevocable trust to be used solely for providing benefits to eligible retired employees and their beneficiaries (members) in the RHP. HRSD's contributions to the Trust are dedicated irrevocably to providing post-retirement health benefits, the RHP assets are exclusively dedicated to providing benefits to members, and the RHP assets of the Trust are not subject to the claims of HRSD creditors or the Plan administrator. Employer contributions are recorded in the year they are made. Investments are reported at market value based on published prices and quotations. The RHP does not issue stand-alone financial statements.

Eligible Employees

HRSD employees are eligible for benefits upon retirement provided the employee has 15 years of service with HRSD or 10 years of service with HRSD plus 10 years of service with another Virginia Retirement System (VRS) employer with a retiree health plan; are qualified for unreduced retirement benefits from VRS; and are enrolled in the HRSD Health Insurance Plan prior to retirement. Participating beneficiaries may continue coverage under the plan after the death of the retiree. Medicare eligible participants are required to enroll in both Medicare Part A and Part B, and may participate in a Medicare supplement plan. Members not eligible for Medicare may participate in a high deductible health plan.

Benefits provided

The RHP health plan provides medical and prescription services using both in network and out of network providers through a self-funded plan administered by a third-party vendor. HRSD purchases stop-loss insurance to limit its exposure to catastrophic medical costs. Members may elect to purchase dental and vision benefit plans at their own expense.

GLI

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS GLI upon employment. This plan is administered by the VRS, along with pensions and other OBEB plans, for public employer groups in the Commonwealth of Virginia.

In addition to the Basic Group Life Insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the Group Life Insurance Program OPEB.

The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits follows:

Eligible Employees

The Group Life Insurance Program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program. Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.

Benefit Amounts

The benefits payable under the Group Life Insurance Program have several components.

- Natural Death Benefit – The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.
- Accidental Death Benefit – The accidental death benefit is double the natural death benefit.
- Other Benefit Provisions – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:
    - Accidental dismemberment benefit
    - Safety belt benefit
    - Repatriation benefit
    - Felonious assault benefit
    - Accelerated death benefit option

Reduction in Benefit Amounts

The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value.

Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at $8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment was increased to $8,279 effective July 1, 2018.

HIC

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS Political Subdivision Health Insurance Credit Program upon employment. This plan is administered by the VRS, along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia. Members earn one month of service credit toward the benefit for each month they are employed and for which their employer pays contributions to VRS. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering the spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

The specific information about the Political Subdivision Health Insurance Credit Program OPEB, including eligibility, coverage and benefits follows:

Eligible Employees

The Political Subdivision Retiree Health Insurance Credit Program was established July 1, 1993 for retired political subdivision employees of employers who elect the benefit and who retire with at least 15 years of service credit. Eligible employees of participating political subdivisions are enrolled automatically upon employment. They include full-time permanent salaried employees of the participating political subdivision who are covered under the VRS pension plan.

Benefit Amounts

The political subdivision's Retiree Health Insurance Credit Program provides the following benefits for eligible employees:

- At Retirement – For employees who retire, the monthly benefit is $1.50 per year of service per month with a maximum benefit of $45.00 per month.
- Disability Retirement – For employees who retire on disability or go on long-term disability under the Virginia Local Disability Program (VLDP), the monthly benefit is $45.00 per month.

Health Insurance Credit Program Notes:

- The monthly Health Insurance Credit benefit cannot exceed the individual premium amount.
- No health insurance credit for premiums paid and qualified under the VRS Line of Duty Act Program (LODA), however, the employee may receive the credit for premiums paid for other qualified health plans.
- Employees who retire after being on long-term disability under VLDP must have at least 15 year of service credit to qualify for the health insurance credit as a retiree.

Employees Covered by Benefit Terms

As of the June 30, 2018 and 2017 actuarial valuation dates the following employees were covered by the benefit terms of the RHP:

	2018	2017
Beneficiaries currently receiving benefit payments	163	152
Active employees	719	708
Total	882	860

There are no inactive employees entitled to but not yet receiving plan benefits.

As of the June 30, 2017 and 2016 actuarial valuation dates the following employees were covered by the benefit terms of the HIC:

	2017	2016
Inactive members or their beneficiaries currently receiving benefit payments	229	218
Vested	6	7
Total Inactive Members	235	225
Active employees	780	781
Total	1,015	1,006

Contributions

RHP contribution requirements are actuarially determined. Funding is subject to approval by the Commission. Medicare-eligible members contribute $45 per month for retiree-only coverage and from $442 to $460 per month for retiree and dependent coverage. Members not eligible for Medicare contribute $120 per month for retiree-only coverage and from $517 to $535 per month for retiree and dependent coverage. HRSD funds the cost of coverage under the RHP by paying the difference between the contributions it requires retirees to make and the actuarially determined contribution (ADC). The current employer contribution rate is approximately 5 percent of annual covered payroll. HRSD contributed $2,993,000 to the RHP for the year ended June 30, 2019 and HRSD contributed $2,729,000, and Retirees contributed $303,000, for the year ended June 30, 2018.

The GLI contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer’s contractually required employer contribution rate for the years ended June 30, 2019 and 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Group Life Insurance Program were $267,000 and $259,000 for the years ended June 30, 2019 and June 30, 2018, respectively.

The HIC contribution requirement for active employees is governed by §51.1-1402(E) of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. HRSD’s contractually required employer contribution rates for the years ended June 30, 2019 and 2018 were 0.21% and 0.19% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Political Subdivision Health Insurance Credit Program were $108,000 and $95,000 for the years ended June 30, 2019 and June 30, 2018, respectively.

RHP OPEB Expenses and Deferred Outflows of Resources Related to RHP OPEB

HRSD recognized RHP OPEB expense of $1,966,000 for the year ended June 30, 2019. At June 30, 2019, HRSD reported deferred inflows of resources related to OPEB from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2019:		
Differences between expected and actual experience	$ 2,936	$ -
Changes of assumptions	-	1,428
Net difference between projected and actual earnings on plan investments	-	677
	$ 2,936	$ 2,105
Year ended June 30, 2018:		
Net difference between projected and actual earnings on plan investments	-	$ 692

HRSD's measurement date is its fiscal year end so there are no deferred outflows of resources resulting from contributions subsequent to the measurement date. Other amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense in future reporting periods as follows:

Year ended June 30,	(in thousands)
2020	$ (24)
2021	(24)
2022	(24)
2023	149
2024	188
Thereafter	566
	$ 831

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB

At June 30, 2019 and 2018, HRSD reported liabilities of $3,981,000 and $3,915,000, respectively, for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liabilities were measured as of June 30, 2018 and June 30, 2017 and the total GLI OPEB liabilities used to calculate the Net GLI OPEB Liability were determined by actuarial valuations as of those dates. The covered employer's proportion of the Net GLI OPEB Liability was based on HRSD's actuarially determined employer contributions to the Group Life Insurance Program for the years ended June 30, 2018 and 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2018 and 2017, HRSD's proportion was 0.26214% and 0.26016%, respectively. For the years ended June 30, 2019 and 2018, HRSD recognized GLI OPEB expense of $49,000 and $38,000, respectively. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2019 and 2018, HRSD reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2019:		
Differences between expected and actual experience	$ 195	$ 71
Net difference between projected and actual earnings on GLI OPEB program investments	-	130
Change in assumptions	-	166
Changes in proportion	51	-
Employer contributions subsequent to the measurement date	267	-
Total	$ 513	$ 367
Year ended June 30, 2018:		
Differences between expected and actual experience	$ -	$ 87
Net difference between projected and actual earnings on GLI OPEB program investments	-	147
Change in assumptions	-	202
Changes in proportion	28	-
Employer contributions subsequent to the measurement date	259	-
Total	$ 287	$ 436

HRSD reported $267,000 and $259,000 as of June 30, 2019 and 2018, respectively, as deferred outflows of resources related to the GLI OPEB resulting from the HRSD's contributions subsequent to the measurement date which will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Years ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

2022	(49)
2023	(12)
2024	20
Thereafter	18
	$ (121)

HIC OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to HIC OPEB

For the years ended June 30, 2019 and 2018, HRSD recognized Health Insurance Credit Program OPEB expense of $96,000 and $88,000, respectively. At June 30, 2019, HRSD reported deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Health Insurance Credit Program from the following sources:

(in thousands)	Deferred Outflows of Resources		Deferred Inflows of Resources	
Year ended June 30, 2019:				
Differences between expected and actual experience	$	23	$	-
Net difference between projected and actual earnings on HIC OPEB program investments		-		21
Change in assumptions		-		16
Employer contributions subsequent to the measurement date		108		-
Total	$	131	$	37
Year ended June 30, 2018:				
Net difference between projected and actual earnings on HIC OPEB program investments	$	-	$	28
Change in assumptions		-		19
Employer contributions subsequent to the measurement date		95		-
Total	$	95	$	47

HRSD reported $108,000 and $95,000 reported as deferred outflows of resources related to the HIC OPEB resulting from HRSD's contributions subsequent to the measurement date which will be recognized as a reduction of the Net HIC OPEB Liability in the Fiscal Year ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB will be recognized in the HIC OPEB expense in future reporting periods as follows:

Year ended June 30,	(in thousands)	
2020	$	(6)
2021		(6)
2022		(6)
2023		1
2024		1
Thereafter		2
	$	(14)

Actuarial Methods and Assumptions

The total RHP OPEB liabilities were based on actuarial valuations as of June 30, 2018 and 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2019 and 2018.

Inflation	2.2	percent
Salary increases, including inflation	3.5	percent - 5.35 percent
Investment rate of return	7.0	percent, net of investment expenses, including inflation*

Mortality rates for the RHP are as follows:

Healthy	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.
Disabled	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.

The total GLI and HIC OPEB liabilities were based on actuarial valuations as of June 30, 2017 and 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2018 and 2017.

Inflation	2.5	percent
Salary increases, including inflation	3.5	percent - 5.35 percent
Investment rate of return	7.0	percent, net of investment expenses, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GAAP purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of the OPEB liabilities.

Mortality tables and assumptions for GLI and HIC are as follows:

Pre-Retirement:
RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.
Post-Retirement:
RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:
RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2017 and 2016 valuations were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2017. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, postretirement healthy, and disabled)	Updated to a more current mortality table – RP2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%

Long-Term Expected Rate of Return

The long-term expected rate of return on RHP investments was determined using an economic building block approach that projects economic and corporate profit growth and takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity, and labor force growth. The returns presented here are geometric return projections based on long-term capital market assumptions. The asset target allocations are governed by its formal investment policy. The best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

June 30, 2019 Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	7.50%	2.93%
International Developed Equity	15.00%	7.40%	1.11%
International Emerging Markets Equity	6.00%	7.50%	0.45%
Core Fixed	20.00%	5.10%	1.02%
Investment Grade Corporate Debt	10.00%	6.10%	0.61%
Emerging Markets Debt	5.00%	6.70%	0.34%
High Yield	5.00%	6.60%	0.33%
Total	100.00%		6.79%
		Inflation	2.50%
		* Expected arithmetic nominal return	9.29%

* The above allocation provides a one-year return of 9.29%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

June 30, 2018 Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	5.20%	2.03%
International Developed Equity	15.00%	5.20%	0.78%
International Emerging Markets Equity	6.00%	5.20%	0.31%
Core Fixed	20.00%	3.00%	0.60%
Investment Grade Corporate Debt	10.00%	3.75%	0.38%
Emerging Markets Debt	5.00%	4.75%	0.24%
High Yield	5.00%	4.25%	0.21%
Total	100.00%		4.55%
		Inflation	2.50%
		* Expected arithmetic nominal return	7.05%

* The above allocation provides a one-year return of 7.05%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

The long-term expected rate of return on the GLI and HIC investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System's investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	100.00%		4.80%
		Inflation	2.50%
		* Expected arithmetic nominal return	7.30%

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rates

The discount rate used to measure the total OPEB liability for the RHP, as of June 30, 2019, was 6.0%. The projection of cash flows used to determine the discount rate assumes that HRSD contributions will be made in accordance with the funding plan established by an independent actuarial review.

The discount rate used to measure the total GLI and HIC liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the GLI and HIC will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI and HIC fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI and HIC liability.

Change in Net OPEB Liability

HRSD's Net OPEB Liability (NOL) as of June 30, 2019 for the RHP was measured as of June 30, 2019 using a June 30, 2018 valuation, which has been rolled forward to the June 30, 2019 measurement date.

RHP (in thousands)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2017	$ 57,416	$ 42,526	$ 14,890
Changes for the year - Increase (Decrease):			
Service cost	1,260	-	1,260
Interest	3,391	-	3,391
Contributions - employer	-	2,729	(2,729)
Contributions - employee	-	303	(303)
Net investment income	-	3,450	(3,450)
Benefit payments, including refunds of employee contributions	(1,791)	(1,791)	-
Administrative expense	-	(114)	114
Net changes	2,860	4,577	(1,717)
Balances at June 30, 2018	60,276	47,103	13,173
Changes for the year - Increase (Decrease):			
Service cost	1,300	-	1,300
Interest	3,571	-	3,571
Changes of assumptions	(1,607)	-	(1,607)
Difference between expected and actual experience	3,302	-	3,302
Contributions - employer	-	2,993	(2,993)
Contributions - employee	-	-	-
Net investment income	-	3,078	(3,078)
Benefit payments, including refunds of employee contributions	(1,149)	(1,149)	-
Administrative expense	-	-	-
Other changes	-	-	-
Net changes	5,417	4,922	495
Balances at June 30, 2019	$ 65,693	$ 52,025	$ 13,668

HRSD's net Health Insurance Credit OPEB liability was measured as of June 30, 2018. The total Health Insurance Credit OPEB liability was determined by an actuarial valuation performed as of June 30, 2017, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

HIC (in thousands)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2016	$ 1,891	$ 780	$ 1,111
Changes for the year - Increase (Decrease):			
Service cost	27	-	27
Interest	129	-	129
Changes of assumptions	(22)		(22)
Difference between expected and actual experience	-	-	-
Contributions - employer	-	91	(91)
Net investment income	-	90	(90)
Benefit payments, including refunds of employee contributions	(94)	(94)	-
Administrative expense	-	(1)	1
Other changes	-	4	(4)
Net changes	40	90	(50)
Balances at June 30, 2017	1,931	870	1,061
Changes for the year - Increase (Decrease):			
Service cost	26	-	26
Interest	130	-	130
Changes of assumptions	-		-
Difference between expected and actual experience	27	-	27
Contributions - employer	-	95	(95)
Net investment income	-	60	(60)
Benefit payments, including refunds of employee contributions	(133)	(133)	-
Administrative expense	-	(1)	1
Other changes	-	(5)	5
Net changes	50	16	34
Balances at June 30, 2018	$ 1,981	$ 886	$ 1,095

Net GLI OPEB Liability

The net OPEB liability (NOL) for the Group Life Insurance Program represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement dates of June 30, 2018 and 2017, NOL amounts for the Group Life Insurance Program are as follows:

(in thousands)	2018	2017
Total GLI OPEB Liability	$ 3,113,508	$ 2,942,426
Plan Fiduciary Net Position	1,594,773	1,437,586
Net GLI OPEB Liability	$ 1,518,735	$ 1,504,840
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability:	51.22%	48.86%

The total GLI OPEB liability is calculated by the VRS's actuary, and each plan's fiduciary net position is reported in the VRS's financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the VRS's notes to the financial statements and required supplementary information.

Sensitivity of the Net OPEB Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate

The following table presents the net RHP OPEB liability if it is calculated using a discount rate that is one percentage point lower (5.0%) or one percentage point higher (7.0%) than the current discount rate:

Discount Rate	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30, 2019:	$ 25,007	$ 13,668	$ 4,617
Year ended June 30, 2018:	24,210	13,173	4,419

The following table presents the net RHP OPEB liability if it is calculated using a healthcare cost trend rate that is one percentage point lower (2.2%) or one percentage point higher (4.2%) than the current healthcare cost trend rate:

Ultimate Trend	1% Decrease (2.2%)	Healthcare Cost Trend Rate (3.2%)	1% Increase (4.2%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30, 2019:	$ 3,236	$ 13,668	$ 27,102
Year ended June 30, 2018:	3,173	13,173	26,116

The following table presents the net GLI OPEB liability using the discount rate of 7.00%, as well as what the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
GLI Net OPEB Liability (in thousands)			
Year ended June 30, 2019:	$ 5,202	$ 3,981	$ 2,989
Year ended June 30, 2018:	5,064	3,915	2,984

The following presents the net HIC OPEB liability using the discount rate of 7.00%, as well as what the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
HIC Net OPEB Liability (in thousands)			
Year ended June 30, 2019:	$ 1,306	$ 1,095	$ 916
Year ended June 30, 2018:	1,263	1,061	887

GLI Fiduciary Net Position and HIC Plan Data

GLI Fiduciary Net Position and HIC Plan Data is available in the separately issued VRS 2018 and 2017 Comprehensive Annual Financial Reports (CAFR). Copies of the 2018 and 2017 VRS CAFRs may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf and http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

NOTE 8 – DEFINED BENEFIT PENSION PLAN

Plan Description

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the Virginia Retirement System (VRS). All full-time, salaried permanent employees of HRSD are automatically covered by the Plan upon employment. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave and previously refunded service.

VRS administers three different benefit structures for covered employees – Plan 1, Plan 2 and the Hybrid Retirement Plan (HRP). The specific information for each plan is set out below:

- Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 1 if their membership date is before July 1, 2010 and they were vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced retirement benefit beginning at age 65 with at least five years of service credit or at age 55 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.

- Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 2 if their membership date is on or after July 1, 2010, and they were not vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.

- The Hybrid Retirement Plan (HRP) combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window from January 1 through April 30, 2014. The employee's retirement benefit is funded through mandatory and voluntary contributions made by the employee and HRSD to both the defined benefit and the defined contribution components of the plan. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.

Members in Plan 1 and Plan 2 contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. HRSD makes a separate actuarially determined contribution to VRS for all covered employees. The retirement benefit for members in the HRP is funded through mandatory and voluntary contributions made by the member and HRSD to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.

Members in Plan 1 and Plan 2 earn creditable service for each month they are employed in a covered position, and vest when they have at least five years (60 months) of creditable service. Members in the HRP earn one month of service credit for each month they are employed in a covered position for the defined benefit component, and service credits are used to determine vesting for the employer contribution portion of the plan. HRP members are always 100% vested in the defined contributions they make, and upon retirement or leaving covered employment are eligible to withdraw employer contributions of 50%, 75%, or 100% after two, three, or four years of service, respectively.

The VRS Basic Benefit for Plan 1 and Plan 2 members, and the defined benefit component for HRP members, is a lifetime monthly benefit based on a retirement multiplier as a percentage of the member's average final compensation multiplied by the member's total service credit. Under Plan 1, average final compensation is the average of the member's 36 consecutive months of highest compensation. Under Plan 2 and the HRP, average final compensation is the average of the member's 60 consecutive months of highest compensation. The retirement multiplier for non-hazardous duty members in Plan 1 is 1.7%; in Plan 2 the multiplier is 1.7% for service earned, purchased or granted prior to January 1, 2013 and 1.65% after that date. The multiplier is 1% for members in the

HRP. At retirement, members can elect the Basic Benefit, the Survivor Option, a Partial Lump-Sum Option Payment (PLOP) or the Advance Pension Option. A retirement reduction factor is applied to the Basic Benefit amount for members electing the Survivor Option, PLOP or Advance Pension Option or those retiring with a reduced benefit.

Retirees are eligible for an annual cost-of-living adjustment (COLA) effective July 1 of the second calendar year of retirement. Under Plan 1, the COLA cannot exceed 5%; under Plan 2 and for the HRP defined benefit component, the COLA cannot exceed 3%. During years of no inflation or deflation there is no COLA adjustment. The VRS also provides death and disability benefits.

VRS issues a publically available comprehensive annual financial report that includes financial statements and required supplementary information for VRS. A copy of that report may be downloaded from their website at http://www.varetire.org/publications/index.asap or obtained by writing to VRS at P.O. Box 2500, Richmond, Virginia 23218-2500.

Employees Covered by Benefit Terms

As of the June 30, 2017 and 2016 actuarial valuation dates, the following employees were covered by the benefit terms of the pension plan:

	2017	2016
Inactive Members or Their Beneficiaries Currently Receiving Benefits	369	355
Inactive Members		
Vested	105	105
Non-Vested	138	147
Active Elsewhere in VRS	80	76
Total Inactive Members	323	328
Active Members	780	781
Total	1,472	1,464

Contributions

The contribution requirement for active employees is governed by Section 51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5% of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5% member contribution may have been assumed by the employer. Beginning July 1, 2012, new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. HRSD's contractually required contribution rate for the years ended June 30, 2019 and 2018 were 6.02% and 7.70% of covered compensation. These rates are based on actuarially determined rates from actuarial valuations as of June 30, 2017 and 2015.

These rates, when combined with employee contributions, are expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Employer contributions to the pension plan were $2,866,000 and $3,635,000 for the years ended June 30, 2019 and 2018, respectively.

Net Pension Liability

HRSD's net pension liability as of June 30, 2019 and 2018 was measured as of June 30, 2018 and 2017, respectively. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2017 and 2016, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2018 and 2017.

Actuarial Assumptions

The total pension liability as of June 30, 2019 and 2018 for employees in HRSD's retirement plan was based on actuarial valuations as of June 30, 2017 and 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2018 and 2017, respectively. The actuarial valuations as of June 30, 2017 and 2016 use the following assumptions:

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	7%, net of pension plan investment expenses, including inflation*
Cost of living adjustments	2.25% to 2.50%

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of pension liabilities.

The actuarial valuation as of June 30, 2017 uses the following mortality assumptions:

- Mortality rates: 15% of deaths are assumed to be service related.
- Pre Retirement, RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.
- Post Retirement, RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.
- Post Disablement, RP-2014 Disability Mortality Rates projected with Scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial valuation as of June 30, 2015 uses the following mortality assumptions:

- Mortality rates: 14% of deaths are assumed to be service related.
- Pre Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 4 years and females set back 2 years.
- Post Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 1 year.
- Post Disablement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set back 3 years and no provision for future mortality improvement.

The actuarial assumptions used in the June 30, 2017 valuations were based on the results of an actuarial experience study for the period July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Mortality rates – Updated to a more current mortality table – RP-2014 projected to 2020.
- Retirement rates – Lowered rates at older ages and changed final retirement from 70 to 75.
- Withdrawal rates – Adjusted rates to better fit experience at each year age and service through 9 years of service.
- Disability rates – Lowered rates.
- Salary scale – No change.
- Line of duty disability – Increase rate from 14% to 15%.

The actuarial assumptions used in the June 30, 2015 valuations were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2012. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Updated mortality table.
- Decrease in rates of service retirement.
- Decrease in rates of disability retirement.
- Reduce rates of salary increase by 0.25% per year

Long-Term Expected Rate of Return

The long-term expected rate of return on pension system investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected real rates of return (expected returns, net of pension system investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The asset target allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public equity	40.00%	4.54%	1.82%
Fixed income	15.00%	0.69%	0.10%
Credit strategies	15.00%	3.96%	0.59%
Real assets	15.00%	5.76%	0.86%
Private equity	15.00%	9.53%	1.43%
Total	100.00%		4.80%
		Inflation	2.50%
		* Expected arithmetic nominal return	7.30%

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rate

The discount rate used to measure the total pension liability, as of June 30, 2018 and 2017, was 7.0%. The projection of cash flows used to determine the discount rate assumed that VRS member contributions will be made per the VRS statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2018, the alternate rate was the employer contribution rate used in FY2012 or 90% of the actuarially determined employer contribution rate from the June 30, 2015, actuarial valuations, whichever was greater. From July 1, 2018 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability

(in thousands)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2016	$ 214,962	$ 177,289	$ 37,673
Changes for the year - Increase (Decrease):			
Service cost	4,145	-	4,145
Interest	14,750	-	14,750
Changes of assumptions	(3,975)	-	(3,975)
Difference between expected and actual experience	(3,175)	-	(3,175)
Contributions - employer	-	3,609	(3,609)
Contributions - employee	-	2,351	(2,351)
Net investment income	-	21,526	(21,526)
Benefit payments, including refunds of employee contributions	(8,475)	(8,475)	-
Administrative expense	-	(124)	124
Other changes	-	(19)	19
Net changes	3,270	18,868	(15,598)
Balances at June 30, 2017	218,232	196,157	22,075
Changes for the year - Increase (Decrease):			
Service cost	3,825	-	3,825
Interest	14,952	-	14,952
Difference between expected and actual experience	(101)	-	(101)
Contributions - employer	-	3,710	(3,710)
Contributions - employee	-	2,424	(2,424)
Net investment income	-	14,451	(14,451)
Benefit payments, including refunds of employee contributions	(9,249)	(9,249)	-
Administrative expense	-	(125)	125
Other changes	-	(13)	13
Net changes	9,427	11,198	(1,771)
Balances at June 30, 2018	$ 227,659	$ 207,355	$ 20,304

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

Net Pension Liability (in thousands)	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
June 30, 2018	$ 51,048	$ 20,304	$ (5,194)
June 30, 2017	52,017	22,075	(2,722)

Pension Benefit, Pension Expense, and Deferred Outflows of Resources and Deferred Outflows of Resources Related to Pensions

HRSD recognized a pension benefit of $1,040,000 and a pension expense of $645,000 for the years ended June 30, 2019 and 2018, respectively. At June 30, 2019 and 2018, HRSD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Year ended June 30, 2019:	(in thousands)			
Differences between expected and actual experience	$	1,251	$	2,951
Changes of assumptions		-		2,250
Net difference between projected and actual earnings on plan investments		-		1,702
Employer contributions subsequent to the measurement date		2,866		-
	$	4,117	$	6,903
Year ended June 30, 2018:				
Differences between expected and actual experience	$	1,827	$	4,519
Changes of assumptions		-		3,113
Net difference between projected and actual earnings on plan investments		-		2,827
Employer contributions subsequent to the measurement date		3,635		-
	$	5,462	$	10,459

HRSD reported $2,866,000 and $3,635,000 as of June 30, 2019 and 2018, respectively, as deferred outflows of resources resulting from HRSD's contributions subsequent to the measurement date, which will be recognized as reductions of the Net Pension Liability in the years ended June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

	Decrease in Pension Expense	
Year ended June 30,	(in thousands)	
2020	$	(1,314)
2021		(1,280)
2022		(2,878)
2023		(180)
2024		-
Thereafter		-
	$	(5,652)

NOTE 9 – LONG-TERM DEBT

HRSD issues revenue bonds for various capital improvements including but not limited to wastewater treatment plants and interceptor system improvements. In addition to HRSD's publicly issued revenue bonds, HRSD is indebted for bond issues payable to the Virginia Resources Authority (VRA) as administrator of the Virginia Water Facilities Fund. HRSD is required to adhere to and is in compliance with the rebate and reporting requirements of the federal regulations pertaining to arbitrage.

In fiscal year 2018, HRSD issued $63.2 million in subordinate wastewater revenue bonds, Series 2018A, to fund capital improvement projects. The new bond provided a premium of $11,817,000. Also in fiscal year 2018, HRSD issued $83.5 million in subordinate wastewater revenue refunding bonds, Series 2017A, to fund capital improvement projects and to refund $86,075,000 of the HRSD Series 2012A and 2016A wastewater revenue bonds. The refunding provided a premium of $12,009,000, resulted in a reduction of total debt service payments of $9,642,000, created an economic gain (difference between the present values of the debt service payments on the old and new debt) of $6,655,000 and resulted in a deferred gain on the bond refunding of $3,041,000, which is being amortized over 27 years.

HRSD has $50 million outstanding in subordinate variable rate demand bonds, Series 2016B, to partially finance its capital improvement plan. The bonds bear interest in either a Weekly Period or a Long-term Period, as defined. The bonds were initially issued in a Weekly Interest Period and bear interest at a varying interest rate until, at HRSD's option, they are converted to the Long-term Period. Liquidity to pay the purchase price of the bonds that are tendered and not remarketed is provided by HRSD. Maturities of the principal and interest for these bonds are shown in the following table as if held to maturity. The bonds are subject to optional redemption by HRSD prior to their maturity. Through June 30, 2019, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2019 and 2018 was 1.52% and 1.20%, respectively. The 2019 rate was used to calculate interest maturity amounts shown below.

All bonds are secured by the revenues of HRSD and are payable over the duration of that issue. A summary of activity for the years ended June 30:

(in thousands)	Balance at 6/30/2017	Additions	Deductions	Balance at 6/30/2018	Additions	Deductions	Balance at 6/30/2019	Due within One year
Series-2018A	$ -	$ 63,185	-	$ 63,185	$ -	(470)	$ 62,715	$ 985
Series-2017A	-	83,485	-	83,485	-	-	83,485	-
Series-2016A	243,320	-	(9,830)	233,490	-	(2,520)	230,970	2,650
Series-2016B VR	50,000	-	-	50,000	-	-	50,000	50,000
Series-2014	111,345	-	-	111,345	-	(5,500)	105,845	5,785
Series-2012 A	89,675	-	(81,225)	8,450	-	(2,680)	5,770	2,815
Series-2012 Subordinate	1,205	-	(300)	905	-	(305)	600	310
Series-2011FR	4,400	-	(1,410)	2,990	-	(1,465)	1,525	1,525
Series-2009B	127,630	-	(3,690)	123,940	-	(3,800)	120,140	3,915
Series-2008	5,465	-	(5,465)	-	-	-	-	-
Virginia Resources Authority								
Senior bonds	90,650	-	(5,234)	85,416	-	(5,356)	80,060	5,480
Subordinate bonds	55,821	3,465	(4,883)	54,403	35,040	(5,045)	84,398	5,262
	779,511	150,135	(112,037)	817,609	35,040	(27,141)	825,508	78,727
Unamortized bond premiums	67,272	23,826	(17,265)	73,833	-	(7,712)	66,121	6,223
Total Bonds Outstanding	$ 846,783	$ 173,961	$ (129,302)	$ 891,442	$ 35,040	$ (34,853)	$ 891,629	$ 84,950

Senior bonds outstanding at June 30, 2019:

(in thousands)	Issue Amount	Principal Outstanding Total	Principal Outstanding Current	Principal Outstanding Long-Term	Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
Series 2014	$ 111,345	$ 105,845	$ 5,785	$ 100,060	$ 30,411	5.00%	15 years	July 1, 2029
Series 2012A	130,480	5,770	2,815	2,955	436	5.00%	9 years	January 1, 2021
Series-2011FR	45,705	1,525	1,525	-	31	4.00%	8 years	November 1, 2019
Series-2009B	134,725	120,140	3,915	116,225	82,865	4.71% - 5.11%	30 years	November 1, 2039
VRA - Metering	9,989	6,817	490	6,327	1,186	2.65%	20 years	March 1, 2031
VRA - WTP	5,727	3,913	291	3,622	521	2.05%	20 years	March 1, 2031
VRA - NTP	19,395	13,201	948	12,253	2,296	2.65%	20 years	March 1, 2031
VRA - JRTP	13,431	8,966	676	8,290	1,494	2.65%	20 years	September 1, 2030
VRA - ABTP	50,000	37,086	2,411	34,675	5,557	2.05%	20 years	September 1, 2032
VRA - BHTP	7,584	5,245	372	4,873	727	2.05%	20 years	September 1, 2031
VRA - ATP	6,318	4,832	292	4,540	928	2.51%	20 years	February 1, 2033
Total		$ 313,340	$ 19,520	$ 293,820	$ 126,452			

Maturities of senior bond principal and interest as of June 30, 2019:

(in thousands) June 30,	Principal	Interest
2020	$ 19,520	$ 14,011
2021	18,682	13,227
2022	17,977	12,396
2023	22,000	11,556
2024	22,882	10,592
2025-2029	109,153	38,044
2030-2034	58,734	18,530
2035-2039	36,275	7,859
2040-2044	8,117	237
	$ 313,340	$ 126,452

Subordinate revenue bonds outstanding at June 30, 2019:

(in thousands)	Issue Amount	Principal Outstanding Total	Current	Long-term	Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
Series-2018A	$ 63,185	$ 62,715	$ 985	$ 61,730	$ 56,073	5.00%	30 Years	October 1, 2047
Series-2017A	83,485	83,485	-	83,485	58,150	3.50% - 5.00%	26 years	October 1, 2043
Series-2016A	246,845	230,970	2,650	228,320	145,982	3.00% - 5.00%	27 years	August 1, 2043
Series-2012 Sub	22,680	600	310	290	11	1.77% - 1.92%	8 years	October 1, 2020
VRA - Disinfection	6,490	450	450	-	12	3.50%	20 years	March 1, 2020
VRA - BH Odor	2,380	396	155	241	21	3.50%	20 years	September 1, 2021
VRA - York River Reuse	2,476	525	147	378	18	1.70%	20 years	September 1, 2022
VRA - AB Aeration	1,759	393	110	283	13	1.70%	20 years	October 1, 2022
VRA - Ches-Eliz Off Gas	1,070	272	64	208	23	3.75%	20 years	March 1, 2023
VRA - AB Generator	1,235	514	69	445	39	2.00%	20 years	April 1, 2026
VRA - Atlantic Expansion	7,340	3,462	402	3,060	317	2.10%	20 years	February 1, 2027
VRA - Ches-Eliz Expansion	40,330	18,926	2,196	16,730	1,733	2.10%	20 years	June 1, 2027
VRA - Williamsburg PS	1,605	797	87	710	77	2.10%	20 years	July 1, 2027
VRA - York River Expansion	29,683	20,202	1,445	18,757	3,612	2.72%	20 years	March 1, 2031
VRA - Atlantic	-	32,757	-	32,757	17,031	2.25%	30 years	March 1, 2046
VRA - Ferguson	-	852	25	827	419	2.70%	30 years	March 1, 2047
VRA - Lucas	-	2,761	77	2,684	1,366	2.65%	30 years	October 1, 2047
VRA - Rodman	1,096	1,066	35	1,031	315	2.25%	25 years	June 1, 2043
VRA - BHTP Switchgear	-	93	-	93	81	1.85%	20 years	December 1, 2040
VRA - Orcutt Ave and Mercury	-	932	-	932	1,092	2.85%	30 years	February 1, 2049
		462,168	9,207	452,961	286,385			
Series-2016B VR	50,000	50,000	50,000	-	17,169	Variable (1.52% at June 30, 2019)	30 years	August 1, 2046
Total		$ 512,168	$ 59,207	$ 452,961	$ 303,554			

The VRA bonds that do not show an issue amount have not closed as of June 30, 2019, therefore the principal amounts reflected represent draws through that date. The total amount available on the Subordinate VRA bonds is $78,472,000, of which $41,063,000 is available at June 30, 2019.

Maturities of subordinate bond principal and interest as of June 30, 2019:

(in thousands) June 30,	Principal	Interest
2020	$ 59,207	$ 19,774
2021	10,508	19,855
2022	13,099	20,237
2023	11,080	19,637
2024	11,244	19,262
2025-2029	72,936	88,422
2030-2034	131,930	66,659
2035-2039	124,178	34,205
2040-2044	63,045	13,555
2045-2049	14,941	1,948
	$ 512,168	$ 303,554

HRSD defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the fund's financial statements. At June 30, 2019, the following defeased bonds from advance refunding are still outstanding:

Defeased In	Original Issue	Amount	Redemption
2014	Series 2011 FR	$ 9,004,000	11/1/2019
2014	Series 2012A	14,664,000	1/1/2021
2016	Series 2011 FR	26,296,000	11/1/2019
2016	Series 2012A	17,942,000	1/1/2021
2017	Series 2012A	83,449,000	1/1/2021
2017	Series 2016A	8,789,000	8/1/2026
		$ 160,144,000	

HRSD's outstanding bonds contain a provision that, in the event of a default, the Bond Trustee (the Trustee) may take whatever action is necessary or desirable to collect the payments of interest installments or principal then due under the Bond Trust Agreement (the Trust Agreement), or to enforce performance, observance or compliance by the District with any covenant, condition, agreement or provision under the Trust Agreement. The Trustee may, upon the written request of the holders of not less than a majority in aggregate principal amount of the bonds then outstanding, by notice in writing to HRSD, declare the principal of all bonds then outstanding to be due and payable immediately.

NOTE 10 – NET POSITION

Restricted Portion of Net Position

Restricted for debt service. HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service. At June 30, 2019 and 2018, $28,553,000 and $27,799,000, respectively, were contained in the unrestricted net position.

Unrestricted Portion of Net Position

Reserved for Improvement. HRSD's Master Trust Agreement requires a reserve for improvements. There is no specific funding mechanism established by the Trust Agreement. At June 30, 2019 and 2018, $157,000 and $367,000, respectively, were contained in the unrestricted net position. HRSD was in compliance with all funding requirements of this reserve during the fiscal years ended June 30, 2019 and 2018.

Reserved for Construction. A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2019 and 2018, $0 and $8,596,000, respectively, were contained in the unrestricted net position.

NOTE 11 - RISK MANAGEMENT

HRSD is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; employee dishonesty; injuries to employees; and natural disasters. HRSD purchases commercial insurance for specific types of coverage including property, liability, auto, crime, public officials and worker's compensation. There were no significant reductions in insurance coverage from the prior year. Claim settlements and judgments not covered by commercial insurance are covered by operating resources. The amount of settlements did not exceed insurance coverage for each of the past three years. Claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.

HRSD has a self-insured health, dental and vision care benefits program for all employees. Certain health claims expenses paid on behalf of each employee during a single policy year are covered by excess loss insurance with a specific stop-loss limit of $250,000. HRSD also maintains an aggregate insurance policy whereby total medical claims costs in excess of 125 percent of expected costs are subject to reimbursement. Claims processing and payments for all health care claims are made through third-party administrators. HRSD uses the information provided by the third-party administrators and a health care benefits consultant to aid in the determination of self-insurance reserves.

Changes in HRSD's claims liability for fiscal years 2018 through 2019 is as follows:

(in thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2018	$ 3,355	$ 13,332	$ (12,471)	$ 4,216
2019	4,216	12,875	(12,801)	4,290

NOTE 12 – COMMITMENTS AND CONTINGENCIES

HRSD is party to a federal consent decree with the federal and state governments (the Consent Decree), which requires HRSD to evaluate the wet weather capacity of the regional sewer system, including collection systems owned by 14 of the localities which HRSD serves in the Hampton Roads area. Based upon that evaluation, HRSD, in consultation with the localities, has developed a Regional Wet Weather Management Plan (RWWMP), which is under review by the federal and state environmental agencies for their approval. The recommended plan includes a long-term implementation schedule, identifies appropriate levels of wet weather capacity in individual areas of the region and/or on a region-wide basis, and summarizes the major projects and programs that must be implemented in order to achieve the appropriate level of regional wet weather capacity.

HRSD and the localities believe that addressing wet weather capacity issues from a regional perspective will result in the most affordable and cost-effective approach for ratepayers throughout the region. Toward that end, HRSD and the localities entered into a legally binding Memorandum of Agreement in March of 2014 (the MOA). The MOA commits HRSD to (1) develop the RWWMP in consultation with the localities, (2) fund the approved plan through a regional rate imposed on all regional ratepayers, (3) design and construct the necessary improvements, and (4) assume responsibility for wet weather capacity throughout the region in each area once the RWWMP is implemented. In exchange, the localities have agreed to (1) cooperate with HRSD, (2) facilitate the construction of and accept ownership of any improvements which HRSD may need to construct in the localities' systems, and (3) maintain the integrity of their systems to industry standards. This agreement is currently under revision. The revision will have HRSD taking responsibility for regional wet weather capacity issues upon the environmental agencies' approval of the RWWMP.

HRSD has also developed an Integrated Management Plan (IMP) and Adaptive Regional Plan (ARP) which was submitted in September 2017. The IMP and ARP include a combination of projects that will improve water quality of the Chesapeake Bay. The first project will be the Sustainable Water Initiative for Tomorrow (SWIFT), which will allow HRSD to reduce nitrogen, phosphorus and total suspended solids to the Chesapeake Bay watershed. This program is estimated to cost $1 billion and may take approximately 10 years to implement. During this time HRSD will be investing approximately $200 million in additional wet weather capacity-related sewer overflow controls between now and 2030. Beginning in 2028-2030 HRSD will perform flow monitoring per the ARP and modify the RWWMP as needed. After 2030, the ARP commits HRSD to submit a Final Remediation Plan which may call for full implementation of the RWWMP, a subset of priority projects from the scenario with the greatest environmental benefits, investments in emerging environmental issues including sea level rise adaptation, or some combination of these or other regional environmental priorities. While speculative at this time, those needs could cost upwards of $1 billion over a 20-25 year period (through 2055). HRSD has submitted the IMP and ARP to the federal and state environmental agencies for approval.

The Consent Decree and MOA also contemplate that the localities' obligation to maintain the integrity of their sewer systems to industry standards was embodied in a State Administrative Order. Management currently believes that HRSD is on schedule to complete these projects.

During FY-2018 HRSD paid $15 million for a non-revocable option to purchase a parcel of land to construct one of the SWIFT facilities. The option must be exercised no earlier than January 1, 2023 and no later than December 31, 2023. An additional payment of $15 million, adjusted from the date of the agreement to the date of settlement by the Consumer Price Index for All Urban Consumers, will be due at that time. Failure to exercise the option will result in forfeiture of the option fee.

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. At June 30, 2019, HRSD has outstanding commitments for contracts in progress of approximately $167,167,000.

NOTE 13 – FAIR VALUE MEASUREMENTS

HRSD categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs.

Debt securities reported as investments are classified in Level 2 of the fair value hierarchy and are valued using the following approaches:

- U.S. Treasury securities are valued using quoted prices for identical or similar securities.
- All other investments are valued based on matrix pricing using observable data of securities with similar attributes.

In FY2019, HRSD converted all U.S. Treasury securities and other investments into Cash and Cash Equivalents. Cash and cash equivalents are not included of the fair value hierarchy and are valued using the following approaches:

- SNAP Fund – money market mutual funds. HRSD's holdings of the PFM Prime Series (SNAP) fund units are valued at NAV, which is used as a practical expedient for fair value. There are no imposed redemption restrictions and the plan does not have any contractual obligations to further invest in the fund. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value. Underlying investments are measured at amortized cost, which approximates fair value. HRSD's total investment in SNAP was $14,335,000 and $67,278,000 as of June 30, 2019 and 2018, respectively.
- Local Government Investment Pool (LGIP) – HRSD holdings of the Virginia LGIP fund units are valued at amortized cost based on their qualification under GASB 79 as being managed as a "2a-7 like" investment. The fund does not have any limitations or restrictions on withdrawals such as redemption notice periods, maximum transaction amounts, or liquidity fees or redemption gates. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value. HRSD's total investment in the LGIP was $68,984,000 as of June 30, 2018. HRSD does not have any investments in LGIP as of June 30, 2019.
- The Virginia Investment Pool Trust Fund (the "Trust" or "VIP") is an Internal Revenue Code Section 115 governmental trust fund created under the Joint Exercise of Powers statute of the Commonwealth of Virginia to provide political subdivisions with an investment vehicle to pool their funds and to invest such funds into two or more investment portfolios under the direction and daily supervision of a professional fund manager. The Trust was established and created by the City of Chesapeake, Virginia and the City of Roanoke, Virginia (the "Founding Participants") and operates under the Trust Agreement as amended September 23, 2016. All deposits to VIP initially go into the Stable NAV Liquidity Pool, which serves both as a liquidity pool and as a

sweep account for the 1-3 Year High Quality Bond Fund. HRSD's total Investment in VIP is $128,530,000 in the 1-3 Year High Quality Bond Fund and $163,659,000 in the Stable NAV Liquidity Pool as of June 30, 2019.

Balance at June 30, 2018 (in thousands)	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Investments by Fair Value Level				
U.S. Treasury Securities	$ 53,627	$ -	$ 53,627	$ -
Federal Agency Notes / Bonds	26,918	-	26,918	-
Corporate Notes / Bonds	20,633	-	20,633	-
Commercial Paper	4,921	-	4,921	-
Certificates of Deposit	7,325	-	7,325	-
Municipal Bonds	1,451	-	1,451	-
Supranationals	9,215	-	9,215	-
Total Investments by Fair Value Level	$ 124,090	$ -	$ 124,090	$ -
Cash Equivalents Measured at Net Asset Value				
Fidelity	$ 139			
SNAP	67,278			
	$ 67,417			

HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, USBank. HRSD categorizes its fair value measurements within the fair value hierarchy consistent with the approach described above.

Balance at June 30, 2019 (in thousands)	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Investments by Fair Value Level				
Mutual Funds - Equity	$ 31,251	$ 2,603	$ 28,648	$ -
Mutual Funds - Fixed Income	19,428	-	19,428	-
Other Income	1,175	-	-	1,175
Total Investments by Fair Value Level	51,854	$ 2,603	$ 48,076	$ 1,175
Cash Equivalents Measured at Net Asset Value				
First American Government Obligation	171			
Fiduciary Net Position of HRSD's OPEB Plan as of June 30, 2019	$ 52,025			

Balance at June 30, 2018 (in thousands)	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Investments by Fair Value Level				
Mutual Funds - Equity	$ 29,847	$ 1,939	$ 27,908	$ -
Mutual Funds - Fixed Income	17,227	-	17,227	-
Total Investments by Fair Value Level	47,074	$ 1,939	$ 45,135	$ -
Cash Equivalents Measured at Net Asset Value				
First American Government Obligation	29			
Fiduciary Net Position of HRSD's OPEB Plan as of June 30, 2018	$ 47,103			

Additional information about HRSD's OPEB Plan is in Note 7.

NOTE 14 - Change in Accounting Principle

As discussed in Note 2, HRSD adopted GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period,* effective July 1, 2018. The requirements of this Statement are applied prospectively, so no adjustment to net position was required.

As discussed in Note 2, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective July 1, 2017. HRSD implemented the provisions of GASB No. 75 in fiscal year 2018 by adjusting the July 1, 2017 net position, establishing an other postemployment benefits (OPEB) liability, recording deferred inflows and outflows of resources related to OPEB activity, and adjusting OPEB expenses in the accompanying financial statements. The following reflects the adjustment to net position as of July 1, 2017 as a result of implementing GASB Statement No. 75 in FY18:

(in thousands)	
Adjustment for net OPEB liability	$ (20,520)
Adjustment for contributions made subsequent to the measurement date	336
Adjustment to net position at July 1, 2017	$ (20,184)

NOTE 15 – Subsequent Event

On October 2, 2019, HRSD closed on $205,675,000 Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable). A portion of the proceeds of the Series 2019A Bonds, together with $66,355,000 in District funds, were applied to refund $35,520,000 of Series 2014A Bonds, $131,525,000 of Series 2016A Bonds, $11,430,000 of Series 2017A Bonds and $41,245,000 of Series 2018A Bonds. The bonds priced at par, resulting in no premium on the bond transaction, as is typical for taxable bonds.

Required Supplementary Information (Unaudited)

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET PENSION LIABILITY AND RELATED RATIOS

(in thousands)	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 3,825	$ 4,145	$ 4,025	$ 4,115	$ 3,943
Interest	14,953	14,750	13,872	13,559	12,907
Changes of benefit terms	-	-	-	-	-
Changes in assumptions	-	(3,975)	-	-	-
Differences between expected and actual experience	(101)	(3,175)	2,980	(4,910)	-
Benefit payments, including refunds of employee contributions	(9,250)	(8,475)	(8,161)	(8,446)	(6,607)
Net change in total pension liability	9,427	3,270	12,716	4,318	10,243
Total pension liability - beginning	218,232	214,962	202,246	197,928	187,686
Total pension liability - ending (a)	$ 227,659	$ 218,232	$ 214,962	$ 202,246	$ 197,929
Plan fiduciary net position					
Contributions - employer	$ 3,710	$ 3,609	$ 4,083	$ 4,099	$ 4,114
Contributions - employee	2,424	2,351	2,286	2,314	2,267
Net investment income	14,451	21,526	3,062	7,807	23,313
Benefit payments, including refunds of employee contributions	(9,250)	(8,475)	(8,161)	(8,446)	(6,607)
Administrative expense	(125)	(124)	(109)	(107)	(125)
Other	(12)	(19)	(1)	(2)	1
Net change in plan fiduciary net position	11,198	18,868	1,160	5,665	22,963
Plan fiduciary net position - beginning	196,157	177,289	176,129	170,464	147,501
Plan fiduciary net position - ending (b)	$ 207,355	$ 196,157	$ 177,289	$ 176,129	$ 170,464
Net pension liability - ending (a) - (b)	$ 20,304	$ 22,075	$ 37,673	$ 26,117	$ 27,465
Plan fiduciary net position as a percentage of the total pension liability (b)/(a)	91.08%	89.88%	82.47%	87.09%	86.12%
Covered payroll (c)	$ 50,874	$ 49,286	$ 47,838	$ 47,674	$ 46,096
Net pension liability as a percentage of the covered payroll ((a)-(b))/(c)	39.91%	44.79%	78.75%	54.78%	59.58%

This schedule is presented to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

In accordance with GAAP, Net Liability is reported using the measurement date, which is one year prior to the reporting date.

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER PENSION CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	$ 2,866,000	$ 2,866,000	$ -	$ 51,336,000	5.58%
2018	3,635,000	3,635,000	-	50,874,000	7.15%
2017	4,326,000	4,326,000	-	49,286,000	8.78%
2016	4,222,000	4,222,000	-	47,838,000	8.83%
2015	4,207,000	4,207,000	-	47,674,000	8.82%
2014	4,107,000	4,107,000	-	46,096,000	8.91%
2013	4,075,000	4,075,000	-	45,044,000	9.05%
2012	4,580,000	4,580,000	-	42,166,000	10.86%
2011	4,438,000	4,438,000	-	40,462,000	10.97%
2010	3,900,000	3,900,000	-	39,407,000	9.90%

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation.

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75 retirement
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increase rate from 14% to 15%

Information pertaining to Pensions can be found in Notes 2 and 8 to the financial statements.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET RHP OPEB LIABILITY AND RELATED RATIOS

(in thousands)	2019	2018
Total OPEB liability		
Service cost	$ 1,300	$ 1,260
Interest	3,571	3,391
Changes in assumptions	(1,607)	-
Differences between expected and actual experience	3,302	-
Benefit payments, including refunds of employee contributions	(1,149)	(1,791)
Net change in total OPEB liability	5,417	2,860
Total OPEB liability - beginning	60,276	57,416
Total OPEB liability - ending (a)	$ 65,693	$ 60,276
Plan fiduciary net position		
Contributions - employer	$ 2,993	$ 2,729
Contributions - retirees	-	303
Net investment income	3,078	3,450
Benefit payments, including refunds of employee contributions	(1,149)	(1,791)
Administrative expense	-	(114)
Net change in plan fiduciary net position	4,922	4,577
Plan fiduciary net position - beginning	47,103	42,526
Plan fiduciary net position - ending (b)	$ 52,025	$ 47,103
Net OPEB liability - ending (a) - (b)	$ 13,668	$ 13,173
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	79.19%	78.15%
Covered payroll (c)	$ 52,070	$ 50,874
Net OPEB liability as a percentage of the covered payroll ((a)-(b))/(c)	26.25%	25.89%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Benefit changes:		None
Changes of assumptions:		None
Discount rate:	6/30/2018	6.00%

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF RHP OPEB CONTRIBUTIONS AND RELATED RATIOS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019

Date	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	$ 2,993,000	2,993,000	-	$ 52,070,000	5.75%
2018	2,729,000	2,729,000	-	50,874,000	5.36%
2017	2,558,000	2,558,000	-	49,286,000	5.19%
2016	2,178,000	2,178,000	-	47,838,000	4.55%
2015	2,177,000	2,177,000	-	47,674,000	4.57%
2014	2,244,000	2,244,000	-	46,096,000	4.87%
2013	2,102,000	2,102,000	-	45,032,000	4.67%
2012	2,231,000	2,231,000	-	43,213,000	5.16%
2011	2,196,000	2,196,000	-	40,553,000	5.42%
2010	2,356,000	2,356,000	-	39,183,000	6.01%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Actuarial cost method	Entry age normal
Amortization method	Level percent of pay, closed
Amortization period	An experience gain/loss base is created each year and amortized over a 15 year period
Asset valuation	Smoothed market value with phase-in, using a 5-year smoothing period
Assumed rate of inflation	2.20%
Medical cost trend :	
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years
Post Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.4% after 53 years
Salary increase rate	2.50%
Investments rate of return	6.00%
Mortality rates:	
Healthy	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER'S SHARE OF
NET GLI OPEB LIABILITY AND RELATED RATIOS
FOR THE MEASUREMENT DATES OF JUNE 30, 2018 AND 2017

	2018	2017
Employer's Proportion of the Net GLI OPEB Liability	0.26214%	0.26016%
Employer's Proportionate Share of the Net GLI OPEB Liability	$ 3,981,000	$ 3,915,000
Employer's Covered Payroll	49,846,000	47,987,000
Employer's Proportionate Share of the Net GLI OPEB Liability as a Percentage of its Covered Payroll	7.99%	8.16%
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB	51.22%	48.86%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

In accordance with GAAP, Net Liability is reported using the measurement date, which is one year prior to the reporting date.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER GROUP LIFE INSURANCE CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	$ 267,000	$ 267,000	-	$ 51,890,000	0.51%
2018	259,000	259,000	-	49,846,000	0.52%
2017	250,000	250,000	-	47,987,000	0.52%
2016	246,000	223,000	23,000	46,417,000	0.53%
2015	244,000	221,000	23,000	46,082,000	0.53%
2014	240,000	217,000	23,000	45,283,000	0.53%
2013	238,000	215,000	23,000	44,839,000	0.53%
2012	183,000	117,000	66,000	41,681,000	0.44%
2011	177,000	113,000	64,000	40,252,000	0.44%
2010	139,000	78,000	61,000	28,890,000	0.48%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF CHANGES IN
NET HIC OPEB LIABILITY AND RELATED RATIOS

(in thousands)	2018	2017
Total OPEB liability		
Service cost	$ 26	$ 27
Interest	130	129
Changes in assumptions	-	(22)
Differences between expected and actual experience	27	-
Benefit payments, including refunds of employee contributions	(133)	(94)
Net change in total OPEB liability	50	40
Total OPEB liability - beginning	1,931	1,891
Total OPEB liability - ending (a)	$ 1,981	$ 1,931
Plan fiduciary net position		
Contributions - employer	$ 95	$ 91
Net investment income	60	90
Benefit payments, including refunds of employee contributions	(133)	(94)
Administrative expense	(1)	(1)
Other	(5)	4
Net change in plan fiduciary net position	16	90
Plan fiduciary net position - beginning	870	780
Plan fiduciary net position - ending (b)	$ 886	$ 870
Net OPEB liability - ending (a) - (b)	$ 1,095	$ 1,061
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	44.72%	45.05%
Covered payroll (c)	$ 49,821	$ 47,987
Net OPEB liability as a percentage of the covered payroll ((a)-(b))/(c)	2.20%	2.21%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

In accordance with GAAP, Net Liability is reported using the measurement date, which is one year prior to the reporting date.

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER HEALTH INSURANCE CREDIT CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	$ 108,000	$ 108,000	$ -	$ 51,839,000	0.21%
2018	95,000	95,000	-	49,821,000	0.19%
2017	91,000	91,000	-	47,987,000	0.19%
2016	74,000	74,000	-	46,417,000	0.16%
2015	74,000	74,000	-	46,076,000	0.16%
2014	86,000	86,000	-	45,283,000	0.19%
2013	85,000	85,000	-	44,835,000	0.19%
2012	100,000	100,000	-	41,634,000	0.24%
2011	97,000	97,000	-	40,282,000	0.24%
2010	147,000	147,000	-	38,675,000	0.38%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation.

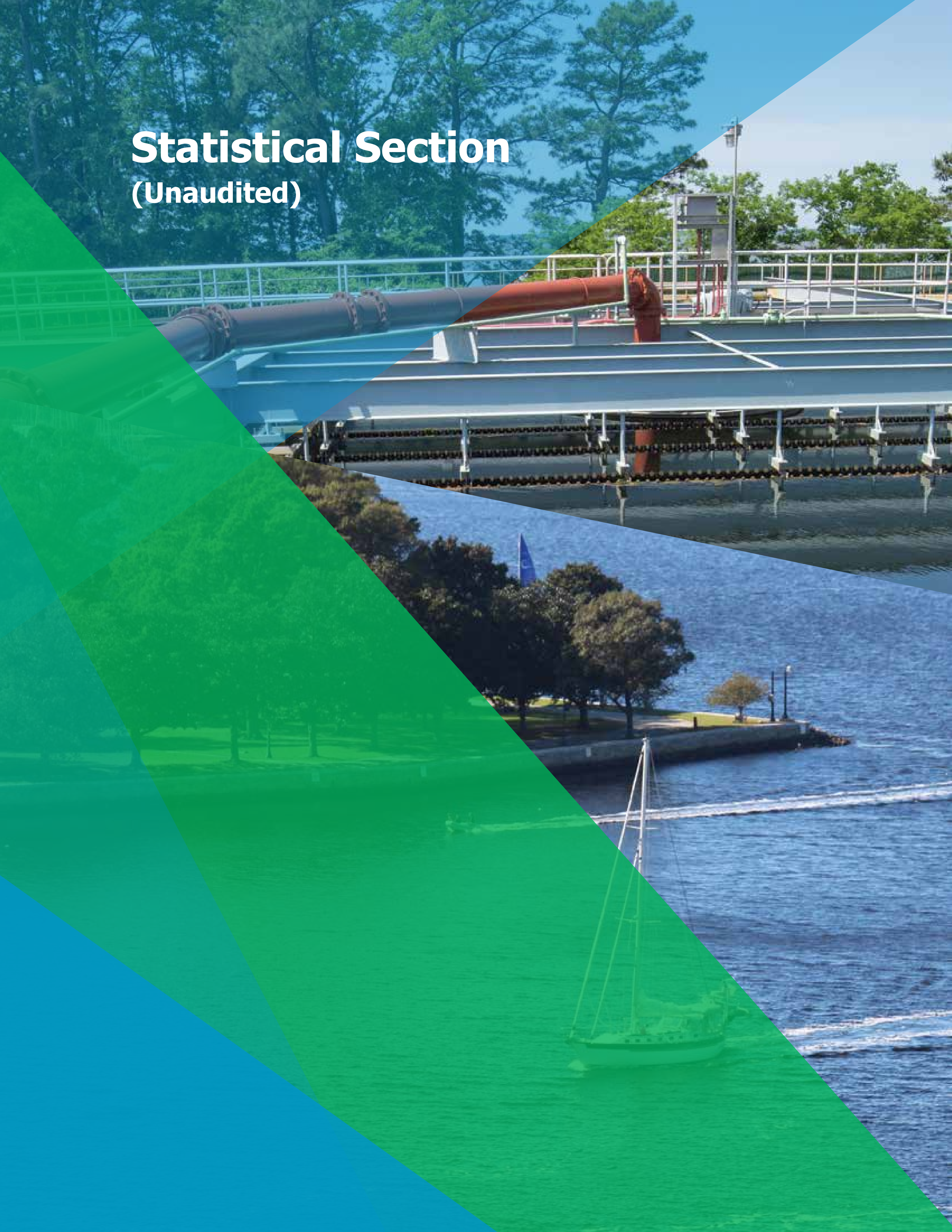
Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

Statistical Section
(Unaudited)



HAMPTON ROADS SANITATION DISTRICT
STATISTICAL SECTION (UNAUDITED)

This section of HRSD's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures and required supplementary information says about HRSD's overall financial health.

Contents **Page(s)**

Sources: Unless otherwise noted the information in these schedules is derived from the comprehensive annual financial reports and accounting records for the relevant year.

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HAMPTON ROADS SANITATION DISTRICT
DEMOGRAPHIC AND OTHER MISCELLANEOUS STATISTICS
JUNE 30, 2019

		2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Date of Incorporation - 1940											
Area in Square Miles (1)		3,087	3,087	3,087	2,808	2,808	2,808	2,808	2,808	2,808	2,808
Present Service Area in Square Miles (1)		758	758	758	672	672	672	672	672	672	672
Treatment Plants (Major)		9	9	9	9	9	9	9	9	9	9
Plant Capacity (Millions of Gallons per Day)											
Army Base Plant, Norfolk		18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Atlantic Plant, Virginia Beach		54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
Boat Harbor Plant, Newport News		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Chesapeake-Elizabeth Plant, Virginia Beach		24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
James River Plant, Newport News		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Nansemond Plant, Suffolk		30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Virginia Initiative Plant, Norfolk		40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Williamsburg Plant, James City County		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
York River Plant, York County		15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Treatment Plants (Major) Capacity		248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
Small Communities Treatment Plants		7	7	5	4	4	4	4	5	5	4
Central Middlesex, Middlesex County		0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.030	0.030	-
King William Plant, King William County		0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Lawnes Point, Isle of Wight County (2)		0.050	0.050	0.050	-	-	-	-	-	-	-
Mathews Plant, Mathews County (3)		-	-	-	-	-	-	-	0.100	0.100	0.100
Surry County (4)		0.065	0.065	-	-	-	-	-	-	-	-
Town of Surry (4)		0.060	0.060	-	-	-	-	-	-	-	-
Urbanna Plant, Middlesex County		0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
West Point Plant, King William County		0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
Total Small Communities Treatment Plants Capacity		1	1	0.875	0.825	0.825	0.83	0.83	0.93	0.93	0.90
Miles of Interceptor Systems (5)		541	542	540	536	532	531	531	532	528	483
Interceptor Pump Stations		87	88	89	88	83	83	83	83	82	81
Small Communities Pump Stations (5)		41	34	38	33	33	33	29	29	29	25
Maintenance Facilities		2	2	2	2	2	2	2	2	2	2
Number of Service Connections (in thousands)		476	473	470	467	465	462	460	458	457	455
Daily Average Treatment in Millions of Gallons		153	145	153	155	152	154	158	147	144	171
Bond Ratings											
Moody's Investors Service	Senior	Aa1	Aa1	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
	Subordinate Long-term	Aa2	Aa2	-	-	-	-	-	-	-	-
Standard & Poor's	Senior	AA+	AA+	AA+	AA+	AA+	AAA	AAA	AAA	AAA	AAA
	Subordinate Long-term	AA+	AA	AA	AA	AA	AA+	AA+	AA+	-	-
	Subordinate Short-term	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	-	-
Fitch	Senior	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
	Subordinate Long-term	AA	AA	AA	AA	AA	AA	AA	AA	-	-
	Subordinate Short-term	F1+	F1+	F1+	F1+	F1+	F1+	F1+	F1+	-	-

(1) HRSD added additional service areas in the counties of Isle of Wight and Surry
(2) Lawnes Point was acquired during the year ended June 30, 2017.
(3) The Mathews Treatment Plant was closed in 2013. Wastewater from the area is now handled by the York River Treatment Plant.
(4) The Surry Plants were acquired during the year ended June 30, 2018.
(5) HRSD conducted evaluations of the system during the years ended June 30, 2009 and 2011 and revised the miles of pipes and the number of small community pump stations.

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF OPERATING REVENUES, EXPENSES, NET POSITION BY COMPONENT AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS

(in thousands)

	2019	2018	2017	2016	2015
OPERATING REVENUES					
Wastewater treatment charges	$ 299,323	$ 275,539	$ 254,961	$ 234,020	$ 221,626
Miscellaneous	3,798	3,504	3,669	3,861	3,935
TOTAL OPERATING REVENUES	303,121	279,043	258,630	237,881	225,561
OPERATING EXPENSES					
Wastewater treatment	117,189	116,982	113,100	106,575	114,137
General and administrative	41,121	40,480	40,287	40,026	38,678
Depreciation	53,225	52,349	49,311	45,670	41,871
TOTAL OPERATING EXPENSES	211,535	209,811	202,698	192,271	194,686
OPERATING INCOME	91,586	69,232	55,932	45,610	30,875
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	6,662	6,673	7,511	6,699	7,428
Investment income	8,719	3,654	2,287	1,563	1,695
Bond interest subsidy	2,308	2,330	2,275	2,399	2,444
Change in fair value of investments	-	(1,382)	(1,119)	750	(286)
Capital distributions to localities	-	(311)	(138)	(3,287)	-
Bond issuance costs	(53)	(1,061)	(42)	(1,713)	(768)
Disposal of capital assets	-	-	-	-	-
Interest expense	(27,964)	(20,226)	(22,630)	(21,631)	(22,958)
NET NON-OPERATING REVENUES (EXPENSES)	(10,328)	(10,323)	(11,856)	(15,220)	(12,445)
INCOME (LOSS) BEFORE CONTRIBUTIONS	81,258	58,909	44,076	30,390	18,430
CAPITAL CONTRIBUTIONS					
State capital grants	2,444	2,502	7,462	14,389	16,519
Other capital contributions	374	2,124	1,136	-	3,000
CHANGE IN NET POSITION	$ 84,076	$ 63,535	$ 52,674	$ 44,779	$ 37,949
NET POSITION					
Net Investment in capital assets	$ 494,779	$ 512,398	$ 428,670	$ 410,287	$ 385,597
Restricted for debt service	28,553	27,799	22,701	23,798	22,070
Restricted for debt service reserve fund	-	-	-	-	44,118
Unrestricted	258,373	157,432	202,907	167,519	105,040
TOTAL NET POSITION	$ 781,705	$ 697,629	$ 654,278	$ 601,604	$ 556,825
DEBT SERVICE EXPENDITURES					
Senior debt	$ 33,592	$ 36,488	$ 35,837	$ 38,198	$ 43,842
Subordinate debt	$ 28,313	$ 20,633	$ 23,603	$ 17,068	$ 13,091
Senior Debt Service Coverage (GAAP)	4.84	3.59	3.10	2.56	1.90
Subordinate Debt Service Coverage (GAAP)	5.74	6.36	5.09	5.72	6.36
Total Debt Service Coverage (GAAP)	2.62	2.03	1.93	1.77	1.46
Total Debt (Adjusted Cash Basis)	$ 61,905	$ 57,171	$ 57,988	$ 54,643	-
Total Debt Service Coverage (Adjusted Cash Basis)	2.62	2.30	2.00	1.85	-

Notes:

FY2013 - HRSD implemented GASB Statement 65 effective July 1, 2012, which requires expensing bond issuance costs in the year incurred.

FY2013 - HRSD adjusted the financial records to include inventory assets.

FY2014 - HRSD implemented GASB Statements 68 and 71 effective July 1, 2014, which requires recording pension liabilty.

FY2016 - HRSD is showing Debt Service Coverage on both a GAAP basis and an Adjusted Cash basis to account for distributions to localities in accordance with its Amended Subordinate Trust Agreement Section 705(a) enacted in March 2016. There were no distributions in FY2019.

FY2018 - HRSD implemented GASB Statement 75 effective July 1, 2017, which requires recording net OPEB assets or liabilities and related deferred outflows and inflows of resources.

FY2019 - HRSD implemented GASB Statement 89 effective July 1, 2018, establishes accounting requirements for interest cost incurred before the end of a construction period.

HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF OPERATING REVENUES, EXPENSES, NET POSITION BY COMPONENT AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS

(in thousands)

	(adjusted) 2014	(adjusted) 2013	(adjusted) 2012	2011	2010
OPERATING REVENUES					
Wastewater treatment charges	$ 211,538	$ 199,318	$ 194,817	$ 183,526	$ 167,807
Miscellaneous	3,643	3,297	2,996	3,890	3,645
TOTAL OPERATING REVENUES	215,181	202,615	197,813	187,416	171,452
OPERATING EXPENSES					
Wastewater treatment	109,149	86,973	110,783	103,225	98,022
General and administrative	33,012	31,410	31,163	28,622	29,435
Depreciation	42,761	45,414	41,250	36,191	30,441
TOTAL OPERATING EXPENSES	184,922	163,797	183,196	168,038	157,898
OPERATING INCOME	30,259	38,818	14,617	19,378	13,554
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	6,640	5,851	6,276	5,083	5,754
Investment income	1,872	1,705	1,681	1,699	1,541
Bond interest subsidy	2,364	2,602	2,602	2,602	1,655
Change in fair value of investments	(422)	(714)	(224)	(19)	40
Capital distributions to localities	-	-	-	-	-
Bond issuance costs	-	(658)	(2,206)	-	-
Disposal of capital assets	-	(1,649)	-	-	-
Interest expense	(25,650)	(24,330)	(22,760)	(20,516)	(19,973)
NET NON-OPERATING REVENUES (EXPENSES)	(15,196)	(17,193)	(14,631)	(11,151)	(10,983)
INCOME (LOSS) BEFORE CONTRIBUTIONS	15,063	21,625	(14)	8,227	2,571
CAPITAL CONTRIBUTIONS					
State capital grants	13,888	10,172	14,806	16,097	41,606
Other capital contributions	-	-	-	-	-
CHANGE IN NET POSITION	$ 28,951	$ 31,797	$ 14,792	$ 24,324	$ 44,177
NET POSITION					
Net Investment in capital assets	$ 351,191	$ 337,342	$ 348,407	$ 351,618	$ 348,572
Restricted for debt service	24,064	23,843	15,736	14,896	12,253
Restricted for debt service reserve fund	45,207	-	-	-	-
Unrestricted	134,485	164,811	130,056	110,688	92,053
TOTAL NET POSITION	$ 554,947	$ 525,996	$ 494,199	$ 477,202	$ 452,878
DEBT SERVICE EXPENDITURES					
Senior debt	$ 47,331	$ 37,574	$ 33,023	$ 28,257	$ 21,081
Subordinate debt	$ 14,112	$ 11,243	$ 13,694	$ 10,640	$ 10,695
Senior Debt Service Coverage (GAAP)	1.76	2.48	1.94	2.30	2.51
Subordinate Debt Service Coverage (GAAP)	5.92	8.27	4.67	6.10	4.95
Total Debt Service Coverage (GAAP)	1.36	1.91	1.37	1.67	1.67
Total Debt (Adjusted Cash Basis)	-	-	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	-	-	-	-	-

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - LAST TEN FISCAL YEARS

(in thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Personal Services	$ 56,336	$ $ 55,160	$ 53,401	$ 51,801	$ 52,357	$ 50,538	$ 49,361	$ 47,319	$ 44,284	$ 42,529
Fringe Benefits	18,235	20,275	19,106	17,974	18,249	20,170	20,039	17,800	17,692	15,217
Repairs and Maintenance (1)	13,786	16,763	19,933	22,824	31,451	22,320	23,075	26,057	21,234	23,445
Materials and Supplies	9,314	8,865	8,310	7,843	4,343	5,764	5,700	6,143	8,381	6,284
Transportation	1,423	1,271	1,386	1,537	1,297	1,417	1,376	1,319	1,196	1,009
Utilities	12,749	11,968	11,523	11,249	10,503	11,126	12,295	12,027	11,026	10,755
Chemicals	8,746	8,750	8,020	7,512	7,119	7,752	7,892	8,587	8,084	7,571
Contractual Services	32,123	30,165	26,977	21,573	15,127	14,222	13,993	12,312	11,118	10,333
Miscellaneous	2,622	2,509	2,329	1,842	2,880	1,274	1,172	1,324	1,148	1,049
General (2)	2,976	1,736	2,402	2,446	9,489	7,578	6,487	6,852	7,684	9,265
Subtotal, Expense before Depreciation	158,310	157,462	153,387	146,601	152,815	142,161	141,390	139,740	131,847	127,457
Depreciation	53,225	52,349	49,311	45,670	41,871	42,761	45,414	41,250	36,191	30,441
Total Operating Expenses	$ 211,535	$ $ 209,811	$ 202,698	$ 192,271	$ 194,686	$ 184,922	$ 186,804	$ 180,990	$ 168,038	$ 157,898

(1) Excludes capital distributions to localities
(2) Includes bad debt expense

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
RATIOS OF OUTSTANDING DEBT BY TYPE
JUNE 30, 2019

As of June 30,	No. Of Service Connections	(in thousands) Senior Revenue Bonds	Subordinate Revenue Bonds	Total Outstanding Debt	Debt Per Service Connection
2019	476,000	$ 326,531	$ 565,098	$ 891,629	$ 1,873
2018	473,000	349,313	542,129	891,442	1,885
2017	470,000	458,255	388,529	846,784	1,802
2016	467,000	476,734	402,560	879,294	1,883
2015	465,000	649,202	99,195	748,397	1,609
2014	462,000	656,503	109,850	766,353	1,659
2013	460,000	670,272	120,231	790,503	1,718
2012	458,000	510,951	128,335	639,286	1,396
2011	457,000	450,335	110,661	560,996	1,228
2010	455,000	395,215	152,103	547,318	1,203

Note: Unamortized bond premiums are included in both senior and subordinate revenue bonds.

HAMPTON ROADS SANITATION DISTRICT
RATE SCHEDULE
WASTEWATER TREATMENT CHARGES
LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Residential - Metered										
Per CCF * (single step)	$ 5.37	$ 4.92	$ 4.51	$ 4.13	$ 3.83	$ 3.55	$ 3.29	$ 3.05	$ 2.82	$ 2.52
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
In excess of 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
Minimum Charges										
Per day	0.30	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	-	-	-
Residential - Unmetered per 30-day period										
Flat rate accounts	34.91	31.98	29.32	26.32	26.32	26.32	26.32	24.40	22.56	20.16
First toilet	-	-	-	-	-	-	-	-	-	-
Second toilet	-	-	-	-	-	-	-	-	-	-
Additional, each	-	-	-	-	-	-	-	-	-	-
Non-Residential - Special Category										
Biochemical Oxygen Demand (BOD)										
Excess over 282 mg/liter										
Per mg/liter per CCF	0.000104	0.000091	0.000206	0.000485	0.000612	0.001558	0.002451	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	46.77	39.71	35.39
Total Suspended Solids (TSS)										
Excess over 261 mg/liter										
Per mg/liter per CCF	0.000592	0.000520	0.000454	0.000448	0.000417	0.001244	0.001865	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	36.70	34.73	30.25
Total Phosphorus (TP)										
Excess over 6 mg/liter										
Per mg/liter per CCF	0.009535	0.011569	0.011642	0.004361	0.004344	0.011714	0.012790	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	300.57	300.57	293.41
Total Kjeldahl Nitrogen (TKN)										
Excess over 47 mg/liter										
Per mg/liter per CCF	0.003595	0.003156	0.001660	0.000917	0.000756	0.001752	0.002085	-	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	74.51	63.39	61.88
Unusual wastes not covered by this schedule may be assigned a special rate.										
Septic Tank Waste										
Per gallon	0.1697	0.1300	0.1366	0.1362	0.1267	0.1258	0.1146	-	-	-
Per each 500 gallons or part thereof	-	-	-	-	-	-	-	48.57	44.46	38.51

*CCF = 100 Cubic Feet (Approx. 748 gallons)

Note: Rates can be adjusted by the Commission.

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
RATE SCHEDULE
WASTEWATER FACILITY CHARGES
LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Residential	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,715	$ 1,715
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,895	$ 1,715	$ 1,715
3/4" Meter	4,830	4,830	4,830	4,830	4,830	4,830	4,510	2,885	2,605	2,605
1" Meter	8,170	8,170	8,170	8,170	8,170	8,170	7,630	5,370	4,850	4,850
1 1/2" Meter	17,260	17,260	17,260	17,260	17,260	17,260	16,130	13,035	11,780	11,780
2" Meter	30,510	30,510	30,510	29,420	29,420	29,420	27,490	24,420	22,065	22,065
3" Meter	70,800	70,800	70,800	67,350	63,600	62,270	58,180	59,140	53,440	53,440
4" Meter	128,660	128,660	128,660	122,400	115,580	106,060	99,110	110,860	100,175	100,175
6" Meter	298,610	298,610	298,610	284,070	268,250	224,650	209,920	268,675	242,780	242,780
8" Meter	542,680	542,680	542,680	516,260	487,510	382,670	357,580	503,350	454,835	454,835
10" Meter	862,550	862,550	862,550	820,560	774,860	587,820	540,610	819,310	740,340	740,340
12" Meter	1,259,520	1,259,520	1,259,520	1,198,210	1,131,490	-	-	-	-	-
14" Meter	1,734,700	1,734,700	1,734,700	1,650,250	1,558,360	-	-	-	-	-
16" Meter	2,289,010	2,289,010	2,289,010	2,177,580	2,056,330	-	-	-	-	-
Strength based facility charges: (per permitted pound)										
Biochemical Oxygen Demand (BOD) Excess over 250 mg/liter	-	-	-	-	$ 728	$ 987	$ 928	-	-	-
Total Suspended Solids (TSS) Excess over 250 mg/liter	-	-	-	-	424	624	587	-	-	-
Total Phosphorus (TP) Excess over 6 mg/liter	-	-	-	-	8,420	5,846	5,502	-	-	-
Total Kjeldahl Nitrogen (TKN) Excess over 35 mg/liter	-	-	-	-	3,812	1,313	1,235	-	-	-

Notes:
One charge per connection.
HRSD eliminated strength based facility charges effective 7/1/2015.

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
TREATMENT PLANT OPERATING SUMMARY
LAST TEN FISCAL YEARS
(Average Quantity per Day)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District Total										
Flow (MGD)	152.6	145.2	152.9	155.1	152.2	154.0	157.9	147.1	144.4	170.9
Influent (1,000 lbs.)										
BOD	281.9	285.1	288.2	282.5	286.0	288.6	274.4	254.6	273.1	275.2
TSS	211.4	215.8	215.9	228.8	198.6	204.7	198.1	200.3	205.9	210.7
TP	6.6	6.8	7.0	6.9	8.6	6.8	6.6	6.7	7.0	7.4
TKN	47.6	47.2	46.4	45.7	45.8	47.9	48.9	48.3	49.8	48.2
Effluent (1,000 lbs.)										
BOD	8.2	7.5	8.9	9.8	9.9	9.6	9.3	7.5	9.3	11.5
TSS	7.4	6.7	9.4	9.3	8.9	9.1	9.3	10.5	9.2	13.1
TP	0.8	0.7	0.9	0.9	1.0	1.1	1.0	1.1	1.0	1.0
TKN	8.5	7.3	7.7	8.0	9.8	11.2	12.0	10.1	12.3	14.9
Army Base Plant										
Flow (MGD)	11.1	10.0	9.5	9.6	9.9	10.7	11.8	10.2	10.0	12.6
Influent (1,000 lbs.)										
BOD	16.6	16.3	13.2	13.3	16.4	19.0	18.5	17.4	16.9	17.0
TSS	13.9	14.0	11.7	13.3	12.5	14.2	14.4	13.7	12.9	13.5
TP	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.3	3.1	2.7	2.7	2.9	3.5	3.7	3.5	3.2	3.2
Effluent (1,000 lbs.)										
BOD	0.3	0.2	0.3	0.3	0.8	0.8	0.8	0.9	0.8	1.0
TSS	0.4	0.3	0.4	0.5	0.6	0.8	0.9	0.8	1.0	1.1
TP	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	2.1	2.6	2.8	2.5	2.3	2.3
Atlantic Plant										
Flow (MGD)	28.1	26.1	28.2	27.2	30.9	25.7	26.7	29.0	29.7	30.4
Influent (1,000 lbs.)										
BOD	58.2	56.7	53.2	55.6	66.6	52.7	51.3	56.0	58.6	55.1
TSS	39.3	36.6	38.7	38.5	42.9	37.3	36.4	43.8	46.9	43.3
TP	1.4	1.3	1.4	1.4	1.5	1.3	1.3	1.5	1.8	1.8
TKN	11.9	11.2	11.0	10.9	11.4	10.4	10.5	11.7	12.3	11.3
Effluent (1,000 lbs.)										
BOD	2.5	2.4	2.3	2.7	3.0	2.2	2.6	2.0	3.0	2.3
TSS	1.6	1.6	1.9	1.9	2.4	2.0	1.9	1.8	2.0	2.9
Boat Harbor Plant										
Flow (MGD)	15.8	14.2	13.9	15.6	14.4	14.9	15.5	13.6	12.6	16.7
Influent (1,000 lbs.)										
BOD	20.6	19.2	17.4	18.3	20.0	19.2	19.3	19.9	19.4	19.9
TSS	18.0	16.6	15.7	18.1	16.3	16.7	16.0	16.9	15.6	17.5
TP	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5
TKN	4.2	3.9	3.8	3.8	3.6	3.7	3.7	3.7	3.8	3.7
Effluent (1,000 lbs.)										
BOD	0.9	0.6	0.6	1.0	0.7	0.7	0.7	0.6	0.6	1.1
TSS	1.0	0.7	0.7	0.9	0.6	0.8	0.8	0.9	0.7	1.3
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	2.5	1.3	1.2	1.8	2.2	2.4	2.9	3.0	2.8	2.8
Chesapeake-Elizabeth Plant										
Flow (MGD)	17.4	17.6	18.7	18.0	16.3	19.1	18.4	15.2	16.3	20.1
Influent (1,000 lbs.)										
BOD	38.1	37.2	35.4	35.2	30.2	38.7	32.1	24.8	30.1	32.7
TSS	24.6	26.8	26.6	26.1	22.9	26.6	25.1	21.0	22.6	26.9
TP	0.8	0.8	0.8	0.8	2.7	0.8	0.8	0.7	0.7	0.8
TKN	6.9	6.8	6.6	6.4	5.1	6.7	6.4	5.4	6.1	6.2
Effluent (1,000 lbs.)										
BOD	2.2	2.0	2.8	2.3	2.0	2.5	2.2	1.5	1.8	2.2
TSS	2.0	1.9	3.2	2.3	1.8	1.9	2.1	1.8	1.9	2.2
TP	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2
TKN	4.4	4.1	4.5	4.1	3.6	4.5	4.2	3.2	3.9	3.9

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
TREATMENT PLANT OPERATING SUMMARY
LAST TEN FISCAL YEARS
(Average Quantity per Day)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
James River Plant										
Flow (MGD)	13.9	13.0	12.3	13.2	12.7	13.6	14.3	12.9	12.2	14.9
Influent (1,000 lbs.)										
BOD	25.8	26.8	25.5	24.4	25.7	27.5	25.5	25.3	26.2	24.7
TSS	18.7	19.3	17.4	17.8	18.0	19.4	19.2	19.0	19.8	19.9
TP	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
TKN	4.7	4.8	4.3	4.2	4.0	4.2	4.4	4.4	4.4	4.3
Effluent (1,000 lbs.)										
BOD	0.4	0.3	0.4	0.4	0.3	0.5	0.7	0.7	0.9	1.2
TSS	0.4	0.4	0.4	0.5	0.4	0.6	0.8	0.8	0.9	1.8
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.4	0.5	0.4	0.4	0.2	0.6	0.5	2.3	2.6
Nansemond Plant										
Flow (MGD)	16.9	17.5	18.8	18.5	16.6	16.9	17.1	16.2	15.9	18.0
Influent (1,000 lbs.)										
BOD	33.0	31.9	40.7	35.8	28.5	29.0	27.0	23.7	27.9	30.2
TSS	37.2	33.4	40.3	38.4	21.9	23.1	22.9	22.6	22.6	24.5
TP	1.0	1.2	1.5	1.5	1.1	1.1	1.1	1.0	1.0	1.1
TKN	6.7	7.1	7.4	7.0	5.6	5.8	5.9	6.0	6.1	6.0
Effluent (1,000 lbs.)										
BOD	0.7	0.7	0.8	0.7	0.8	0.9	0.6	0.6	0.8	1.2
TSS	0.8	0.7	0.8	0.9	0.9	1.1	0.8	0.9	1.1	1.3
TP	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
TKN	0.4	0.4	0.5	0.5	0.6	0.5	0.3	0.3	0.5	2.3
Virginia Initiative Plant										
Flow (MGD)	27.6	26.7	30.9	31.7	30.5	30.7	31.9	29.8	28.5	35.7
Influent (1,000 lbs.)										
BOD	40.4	47.5	50.1	50.4	47.5	45.8	45.8	42.3	42.8	43.0
TSS	23.2	30.0	31.3	32.0	30.2	30.6	31.6	32.3	31.8	31.7
TP	0.9	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.2
TKN	6.8	7.0	7.3	7.4	7.1	7.4	7.5	7.6	7.3	7.2
Effluent (1,000 lbs.)										
BOD	0.6	0.8	1.2	1.7	1.9	1.4	0.9	0.8	0.7	1.7
TSS	0.7	0.7	1.4	1.9	1.6	1.7	1.4	1.5	1.1	1.7
TP	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1
TKN	0.4	0.6	0.4	0.7	0.8	0.6	0.5	0.5	0.4	0.8
Williamsburg Plant										
Flow (MGD)	8.6	7.7	8.0	8.6	8.4	9.2	8.9	9.1	8.6	10.0
Influent (1,000 lbs.)										
BOD	33.4	32.6	36.1	33.2	34.7	40.4	37.7	33.5	37.5	37.9
TSS	21.2	24.1	19.1	27.9	16.2	19.9	16.8	16.7	19.0	19.6
TP	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6
TKN	3.6	3.5	3.3	3.6	3.2	3.3	3.3	3.4	3.5	3.5
Effluent (1,000 lbs.)										
BOD	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
TSS	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.3	0.4
TP	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2
York River Plant										
Flow (MGD)	13.2	12.6	12.6	12.7	12.6	13.2	13.3	11.2	10.8	12.5
Influent (1,000 lbs.)										
BOD	15.8	16.8	16.7	16.3	18.2	17.9	17.2	13.3	15.5	16.3
TSS	15.4	15.0	15.1	16.7	16.9	16.4	15.7	14.1	14.3	14.0
TP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.7	3.6	3.6	3.5	3.5	3.6	3.5	3.2	3.6	3.3
Effluent (1,000 lbs.)										
BOD	0.5	0.3	0.3	0.4	0.4	0.4	0.5	0.2	0.5	0.4
TSS	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.5
TP	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.1	0.1	0.2

Note: HRSD implemented a surcharge for Total Kjeldahl Nitrogen (TKN) on July 1, 2007.

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
TEN LARGEST CUSTOMERS
CURRENT YEAR AND NINE YEARS AGO

(in thousands)

Customer	Type	2019 Amount	2019 Percent	2010 Amount	2010 Percent
U.S. Navy - Norfolk Naval Base	Military Facility	$ 8,130	2.7%	$ 3,437	2.2%
Smithfield Foods	Meat Processor	4,256	1.4%	2,858	1.8%
Anheuser - Busch, Inc.	Brewery	3,103	1.0%	5,438	3.5%
Norfolk Redevelopment & Housing Authority	Housing Authority	2,471	0.8%	1,159	0.7%
Norfolk Naval Shipyard	Military Ship Repair	2,462	0.8%	2,637	1.7%
City of Norfolk	Municipality	2,386	0.8%	1,496	1.0%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	2,292	0.8%	1,099	0.7%
U.S. Navy - Little Creek Amphibious Base	Military Facility	2,207	0.7%	890.0	0.6%
Oceana Naval Air Station / Dam Neck	Military Facility	1,817	0.6%	-	-
U.S. Air Force - Langley Air Force Base	Military Facility	1,530	0.5%	923	0.6%
U.S. Army - Fort Eustis	Military Facility	-	-	978	0.6%
Total		$ 30,654	10.1%	$ 20,915	13.4%

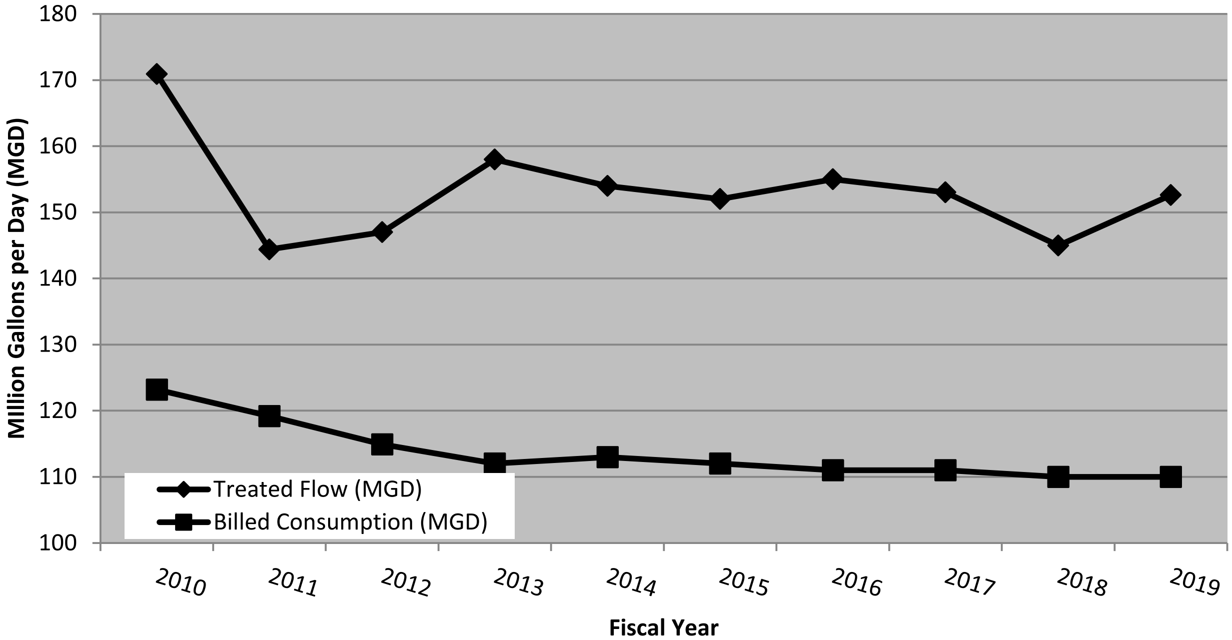
Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
WASTEWATER TREATMENT CHARGES
TEN LARGEST EMPLOYERS
CURRENT YEAR AND NINE YEARS AGO

		2019			2010		
Employer	Type	Number of Employees	Rank	Percent of Regional Employment	Number of Employees	Rank	Percent of Regional Employment
Naval Station Norfolk	Military Facility	76,616	1	7.9%	68,781	1	7.4%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	24,652	2	2.5%	18,091		1.9%
Huntington Ingalls Industries	Shipbuilding and Repair	23,000	3	2.4%	18,000	3	1.9%
Sentara Healthcare	Health Care Network	22,000	4	2.3%	16,000	4	1.7%
Joint Base Langley-Eustis	Military Facility	19,264	5	2.0%	13,400	2	1.4%
Oceana Naval Air Station	Military Facility	18,783	6	1.9%	10,109	6	1.1%
Virginia Beach Public Schools	Public Schools	12,000	7	1.2%	10,527	7	1.1%
Norfolk Naval Shipyard	Military Ship Repair	11,811	8	1.2%	18,427	8	2.0%
Naval Support Activity/ Naval Medical Center	Military Facility	10,706	9	1.1%	8,700		0.9%
Riverside Health System	Health Care Network	8,000	10	0.8%	6,000	9	0.6%
Total		226,832		23.3%	188,035		20.0%

Sources:
Hampton Roads Economic Development Alliance
Hampton Roads Statistical Digest
Confirmation with employers

HAMPTON ROADS SANITATION DISTRICT
COMPARISON OF TREATED FLOW TO BILLED FLOW
LAST TEN FISCAL YEARS



Year ended June 30,	Treated Flow (MGD)	Billed Consumption (MGD)
2010	171	123
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111
2017	153	111
2018	145	110
2019	153	110

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
NUMBER OF EMPLOYEES BY IDENTIFIABLE ACTIVITY
LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
General Management										
General Manager	1	2	3	3	3	3	3	4	4	4
Support Staff	1	1	1	1	1	1	1	1	1	1
Total General Management	2	3	4	4	4	4	4	5	5	5
Communications										
Communications	1	1	-	-	-	-	-	-	-	-
Support Staff	2	1	-	-	-	-	-	-	-	-
Total Communications	3	2	-	-	-	-	-	-	-	-
Talent Management										
Human Resources	6	6	6	5	5	5	5	5	6	6
Safety	3	3	3	3	-	-	-	-	-	-
Training	3	2	2	2	2	2	2	2	2	2
Support Staff	4	4	4	4	3	3	3	3	3	3
Total Talent Management	16	15	15	14	10	10	10	10	11	11
Finance										
Accounting & Finance	12	11	10	10	10	10	10	10	10	10
Customer Care Center	77	77	77	77	69	69	68	69	69	69
Procurement	10	10	10	10	9	9	9	7	7	8
Support Staff	3	3	3	2	3	3	3	3	3	3
Total Finance	102	101	100	99	91	91	90	89	89	90
Information Technology										
Information Technology	43	48	47	45	39	35	35	33	33	33
Support Staff	2	2	1	1	1	1	1	2	2	2
Total Information Technology	45	50	48	46	40	36	36	35	35	35
Operations										
Army Base Treatment Plant	34	34	34	31	32	32	32	32	32	32
Atlantic Base Treatment Plant	35	35	35	32	33	33	33	32	32	32
Boat Harbor Treatment Plant	35	35	35	32	33	33	33	33	33	34
Chesapeake-Elizabeth Treatment Plant	32	32	32	31	32	32	32	32	32	32
Interceptor System Maintenance	119	118	117	115	120	120	120	121	122	122
James River Treatment Plant	22	22	22	20	21	21	21	21	21	21
Maintenance Shops	73	71	70	83	86	86	86	86	86	86
Nansemond Treatment Plant	32	32	32	30	31	31	31	30	30	30
Virginia Initiative Plant	34	33	33	30	31	31	31	31	31	31
Williamsburg Treatment Plant	29	29	29	28	29	29	29	31	31	31
York River Treatment Plant	24	24	24	22	23	23	23	23	23	23
Small Communities Division	23	23	23	21	17	17	17	17	17	15
Support Staff	23	23	23	24	25	25	25	24	24	24
Total - Operations	515	511	509	499	513	513	513	513	514	513
Engineering										
Design and Construction	30	26	25	25	21	19	19	17	15	15
Support Staff	13	13	14	14	14	14	14	14	14	14
Total Engineering	43	39	39	39	35	33	33	31	29	29
Water Quality										
Pretreatment & Pollution Prevention	27	27	26	26	25	24	24	24	24	24
Technical Services	31	31	29	28	25	23	21	21	21	20
Laboratory	47	46	45	42	40	38	38	38	38	38
Support Staff	5	5	6	6	6	6	6	3	3	3
Total Water Quality	110	109	106	102	96	91	89	86	86	85
Total Employees	836	830	821	803	789	778	775	769	769	768

Unaudited – See accompanying independent auditors' report

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Other Supplemental Section (Unaudited)

HAMPTON ROADS SANITATION DISTRICT
SUMMARY OF PRIMARY BONDED DEBT SERVICE
JUNE 30, 2019

(in thousands)

As of June 30,	Senior Bonds Principal	Senior Bonds Interest	Senior Bonds Debt Service	Subordinate Bonds Debt Service	Total Debt Service
2020	$ 19,520	$ 14,011	$ 33,531	$ 78,981	$ 112,512
2021	18,682	13,227	31,909	30,363	62,272
2022	17,977	12,396	30,373	33,336	63,709
2023	22,000	11,556	33,556	30,717	64,273
2024	22,882	10,592	33,474	30,506	63,980
2025	23,821	9,568	33,389	30,491	63,880
2026	24,134	8,499	32,633	30,473	63,106
2027	19,625	7,537	27,162	35,774	62,936
2028	20,390	6,671	27,061	32,333	59,394
2029	21,183	5,769	26,952	32,287	59,239
2030	22,010	4,829	26,839	32,283	59,122
2031	12,368	4,098	16,466	43,072	59,538
2032	9,705	3,622	13,327	41,076	54,403
2033	8,186	3,188	11,374	41,077	52,451
2034	6,465	2,793	9,258	41,081	50,339
2035	6,715	2,406	9,121	40,568	49,689
2036	6,975	2,005	8,980	34,593	43,573
2037	7,245	1,588	8,833	34,668	43,501
2038	7,525	1,155	8,680	31,913	40,593
2039	7,815	705	8,520	16,641	25,161
2040	8,117	237	8,354	14,061	22,415
2041	-	-	-	13,985	13,985
2042	-	-	-	13,904	13,904
2043	-	-	-	17,691	17,691
2044	-	-	-	16,959	16,959
2045	-	-	-	4,462	4,462
2046	-	-	-	4,231	4,231
2047	-	-	-	4,105	4,105
2048	-	-	-	4,091	4,091
2049	-	-	-	-	-
Totals	$ 313,340	$ 126,452	$ 439,792	$ 815,722	$ 1,255,514

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
BUDGETARY COMPARISON SCHEDULE
JUNE 30, 2019

(in thousands)

	Budgeted Amounts Original	Budgeted Amounts Final	Actual Amounts	Variance under Final Budget	Percent Variance
OPERATING BUDGET EXPENSES					
General Management	$ 625	$ 728	$ 684	$ 44	6.0%
Communications	424	439	422	17	3.9%
Finance	13,884	14,039	13,625	414	2.9%
Information Technology	15,090	15,392	14,009	1,383	9.0%
Talent Management	2,293	2,332	2,294	38	1.6%
Operations	98,842	104,916	97,414	7,502	7.2%
Engineering	7,904	7,998	6,506	1,492	18.7%
Water Quality	14,913	15,225	13,974	1,251	8.2%
General	5,412	7,466	605	6,861	91.9%
Debt Service	63,161	62,861	61,958	903	1.4%
TOTAL	222,548	231,396	211,491	$ 19,905	8.6%
Transfer to CIP	87,475	87,475			
Transfer to Risk Management	239	239			
	$ 310,262	$ 319,110			
Add:					
Unbudgeted Depreciation			53,225		
Unbudgeted Bad Debt Expense			2,976		
Capital Improvement Program items expensed			6,484		
Less:					
Capitalized Assets			683		
Debt Service			61,958		
TOTAL OPERATING EXPENSES			$ 211,535		

Unaudited – See accompanying independent auditors' report

BUDGETARY HIGHLIGHTS

HRSD's Commission adopts an Annual Operating Budget that contains the day-to-day operating expenses of the District. The Operating Budget as adopted for FY-2019 was $222,547,939 and contains personnel costs, fringe benefits, material and supplies, electricity, chemicals, insurance, contractual services, debt service and other miscellaneous expenses. There were several modifications to the Operating Budget during the year to reflect changes in spending patterns. All adjustments to the Annual Budget were from encumbrances carried forward or from transfers within or among departments.

NOTE 1 – BUDGETARY ACCOUNTING AND CONTROL

Budget Preparation

HRSD prepares its Annual Budget under the provisions of its enabling legislation, used to establish rates, fees and other charges, and of Section 3.12 of the Master Trust Indenture, dated December 1, 1993, and the Trust Agreement, dated March 1, 2008. In accordance with those provisions, the following process is used to adopt the Annual Budget.

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

The HRSD Commission appoints a Finance Committee consisting of two Commissioners. The two Commissioners meet in early April to review the Budgets, which are presented by staff at the April Commission meeting. HRSD's Commission reviews these budgets at that meeting.

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

The HRSD Commission approves any budget amendments during the ensuing year.

The 2008 Trust Agreement requires Debt Service Coverage of 1.20 times for senior and 1.00 times for total debt based on maximum annual debt service. The 2008 Subordinate Trust Agreement was amended in 2016 to account for Consent Decree expenses related to Locality wet weather improvements that HRSD will not own and requires total debt service coverage to be 1.2 times on an adjusted cash basis. The HRSD Commission has a policy of providing senior revenue and total revenue bonded debt service coverage ratios of not less than 1.5 and 1.4 times annual debt service on an adjusted cash basis, respectively.

Budget Accounting

The Annual Budget is prepared on a basis of accounting consistent with accounting principles generally accepted in the United States of America. No provision is provided, however, for non-cash items such as depreciation and bad debt expense. The FY-2019 Annual Budget consists of two parts: an operating budget that covers day-to-day operations and a capital budget that identifies all major capital project requirements over the next ten years. All operating budget amounts lapse at year-end. The Commission annually adopts only the first year of the capital budget. HRSD's Commission separately approves all contracts that are awarded under the capital budget.

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HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF REVENUES , EXPENDITURES AND DEBT SERVICE FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)	Budget Variance
OPERATING REVENUE				
Wastewater Treatment Charges	$ 299,323	$ 297,062	$ 2,261	1%
Miscellaneous	3,798	2,225	1,573	71%
TOTAL OPERATING REVENUE	303,121	299,287	3,834	1%
CURRENT EXPENDITURES				
General Management	684	728	44	6%
Communications	422	439	17	4%
Finance	13,625	14,039	414	3%
Information Technology	14,009	15,392	1,383	9%
Talent Management	2,294	2,332	38	2%
Operations	97,414	104,916	7,502	7%
Engineering	6,506	7,998	1,492	19%
Water Quality	13,974	15,225	1,251	8%
General	605	7,466	6,861	92%
TOTAL CURENT EXPENDITURES	149,533	168,535	19,002	11%
EXCESS OF OPERATING REVENUES OVER EXPENDITURES	153,588	130,752	22,836	17%
NON-OPERATING REVENUE				
Wastewater Facility Charge	6,662	6,075	587	10%
Interest Income	8,719	2,500	6,219	249%
Bond Interest Subsidy	2,308	2,400	(92)	-4%
TOTAL NON-OPERATING REVENUES	17,689	10,975	6,714	61%
INCOME BEFORE CAPITAL CONTRIBUTIONS	171,277	141,727	29,550	21%
CAPITAL CONTRIBUTIONS				
State Capital Grants	2,818	-	2,818	100%
AMOUNT AVAILABLE FOR DEBT	174,095	141,727	32,368	23%
DEBT EXPENDITURES				
Principal & Interest	61,905	62,511	606	1%
Cost of Issuance	53	350	297	85%
TOTAL DEBT EXPENDITURES	61,958	62,861	903	1%
AMOUNT AVAILABLE TO REINVEST	$ 112,137	$ 78,866	$ 33,271	42%

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019

(in thousands)

	General Management	Communications	Finance	Information Technology	Talent Management	Operations
Personal Services	$ 442	$ 253	$ 5,572	$ 3,924	$ 1,429	$ 33,609
Fringe Benefits	104	92	2,365	1,361	569	14,812
Materials & Supplies	83	40	79	846	59	6,549
Transportation	10	8	10	8	27	1,295
Utilities	-	-	263	1,202	-	10,759
Chemical Purchases	-	-	-	-	-	8,746
Contractual Services	17	16	5,143	6,501	23	12,723
Major Repairs	-	-	-	-	6	7,231
Capital Assets	-	-	-	-	-	660
Miscellaneous Expense	28	13	193	167	181	1,030
	$ 684	$ 422	$ 13,625	$ 14,009	$ 2,294	$ 97,414

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES
FOR OPERATIONS - ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019

(in thousands)

	Engineering	Water Quality	General	Total	Percent of Total	FY-2019 Amended Budget	Variance Favorable/ (Unfavorable)
Personal Services	$ 3,749	$ 7,391	$ (33)	$ 56,336	27%	$ 56,956	$ 620
Fringe Benefits	1,369	3,034	(5,471)	18,235	9%	24,322	6,087
Materials & Supplies	31	1,607	20	9,314	4%	7,762	(1,552)
Transportation	16	38	11	1,423	1%	1,447	24
Utilities	-	1	524	12,749	6%	12,507	(242)
Chemical Purchases	-	-	-	8,746	4%	10,194	1,448
Contractual Services	1,201	1,399	5,100	32,123	15%	41,704	9,581
Major Repairs	-	65	-	7,302	3%	9,416	2,114
Capital Assets	-	23	-	683	0%	1,232	549
Miscellaneous Expense	140	416	454	2,622	1%	2,995	373
	$ 6,506	$ 13,974	$ 605	$ 149,533	71%	$ 168,535	$ 19,002
Debt Service				61,905	29%	62,511	606
Cost of Issuance				53	0%	350	297
Total Debt Expenditures				61,958	29%	62,861	903
Total Department and Debt Expenditures				$ 211,491	100%	$ 231,396	$ 19,905

Unaudited – See accompanying independent auditors' report

HAMPTON ROADS SANITATION DISTRICT
DEPARTMENT SUMMARY OF EXPENDITURES
ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
General Management			
Personal Services	$ 442	$ 452	$ 10
Fringe Benefits	104	123	19
Materials & Supplies	83	86	3
Transportation	10	14	4
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	17	23	6
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	28	30	2
	684	728	44
Communications			
Personal Services	253	247	(6)
Fringe Benefits	92	101	9
Materials & Supplies	40	45	5
Transportation	8	14	6
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	16	16	-
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	13	16	3
	422	439	17
Finance			-
Personal Services	5,572	5,989	417
Fringe Benefits	2,365	2,534	169
Materials & Supplies	79	87	8
Transportation	10	14	4
Utilities	263	296	33
Chemical Purchases	-	-	-
Contractual Services	5,143	4,883	(260)
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	193	236	43
	13,625	14,039	414
Information Technology			-
Personal Services	3,924	3,845	(79)
Fringe Benefits	1,361	1,374	13
Materials & Supplies	846	854	8
Transportation	8	16	8
Utilities	1,202	1,448	246
Chemical Purchases	-	-	-
Contractual Services	6,501	7,219	718
Major Repairs	-	302	302
Capital Assets	-	103	103
Miscellaneous Expense	167	231	64
	14,009	15,392	1,383

(Continued)

HAMPTON ROADS SANITATION DISTRICT
DEPARTMENT SUMMARY OF EXPENDITURES
ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
Talent Management			
Personal Services	$ 1,429	$ 1,366	$ (63)
Fringe Benefits	569	545	(24)
Materials & Supplies	59	68	9
Transportation	27	28	1
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	23	54	31
Major Repairs	6	-	(6)
Capital Assets	-	-	-
Miscellaneous Expense	181	271	90
	2,294	2,332	38
Operations			-
Personal Services	33,609	33,912	303
Fringe Benefits	14,812	15,062	250
Materials & Supplies	6,549	5,065	(1,484)
Transportation	1,295	1,307	12
Utilities	10,759	10,260	(499)
Chemical Purchases	8,746	10,194	1,448
Contractual Services	12,723	17,909	5,186
Major Repairs	7,231	8,979	1,748
Capital Assets	660	1,074	414
Miscellaneous Expense	1,030	1,154	124
	97,414	104,916	7,502
Engineering			-
Personal Services	3,749	3,763	14
Fringe Benefits	1,369	1,423	54
Materials & Supplies	31	28	(3)
Transportation	16	15	(1)
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	1,201	2,611	1,410
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	140	158	18
	6,506	7,998	1,492
Water Quality			-
Personal Services	7,391	7,582	191
Fringe Benefits	3,034	3,019	(15)
Materials & Supplies	1,607	1,499	(108)
Transportation	38	39	1
Utilities	1	3	2
Chemical Purchases	-	-	-
Contractual Services	1,399	2,334	935
Major Repairs	65	135	70
Capital Assets	23	55	32
Miscellaneous Expense	416	559	143
	13,974	15,225	1,251
General			-
Personal Services	(33)	(200)	(167)
Fringe Benefits	(5,471)	141	5,612
Materials & Supplies	20	30	10
Transportation	11	-	(11)
Utilities	524	500	(24)
Chemical Purchases	-	-	-
Contractual Services	5,100	6,655	1,555
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	454	340	(114)
	605	7,466	6,861
TOTAL DEPARTMETAL EXPENDITURES	$ 149,533	$ 168,535	$ 19,002

Unaudited – See accompanying independent auditors' report

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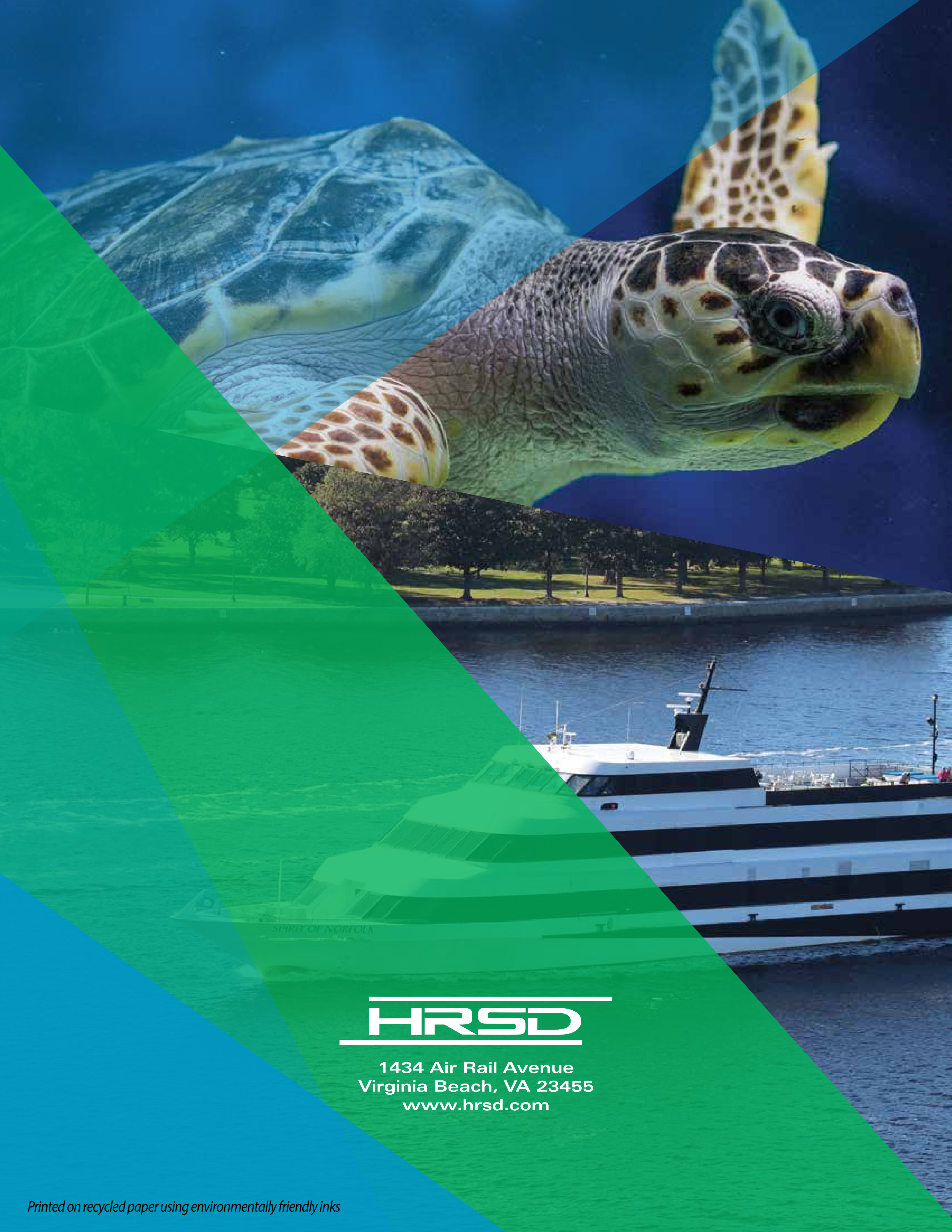

HRSD

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