

# Comprehensive Annual Financial Report

FOR THE FISCAL YEARS ENDED JUNE 30, 2016 AND 2015

HAMPTON ROADS SANITATION DISTRICT  
(A COMPONENT UNIT OF THE COMMONWEALTH OF VIRGINIA)





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, 2016 and 2015**

**Prepared by:  
Finance Department**

# HAMPTON ROADS SANITATION DISTRICT

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# Introductory Section





October 31, 2016

HRSD Commission  
Virginia Beach, Virginia

Dear Commissioners:

Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. This report fulfills that requirement for the fiscal year ended June 30, 2016.

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

KPMG LLP, Certified Public Accountants, has issued an unmodified ("clean") opinion on HRSD's financial statements for the year ended June 30, 2016. 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 2,800 square miles encompasses nine cities, eight 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 467,000 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.

**Finance Department • PO Box 5915, Virginia Beach, VA 23471-0915 • 757.460-2261 • Fax 757.460.8763**

**Commissioners:** Frederick N. Elofson, CPA, Chair • Maurice P. Lynch, PhD, Vice-Chair • Vishnu K. Lakdawala, PhD  
Michael E. Glenn • Arthur C. Bredemeyer • Stephen C. Rodriguez • Susan M. Rotkis • Willie Levenston, Jr.  
[www.hrsd.com](http://www.hrsd.com)

HRSD owns and operates 13 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 four small rural treatment plants, which are located on the Middle Peninsula, have a combined capacity of almost one MGD.

HRSD maintains 536 miles of pipelines ranging from six inches to 66 inches in diameter. Interceptor pipelines, along with 88 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 33 pump stations on the Middle Peninsula.

## **LOCAL ECONOMY**

HRSD's service area includes nearly all of the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (MSA). It is the ninth largest MSA in the southeastern United States and the thirty-seventh largest in the nation. Unlike many metropolitan areas, Hampton Roads' population nucleus is not confined to one central city. Instead, the approximately 1.7 million residents are spread among several cities and counties. Virginia Beach is the most populous city in the Commonwealth, with Norfolk and Chesapeake second and third, respectively. Suffolk is the largest city by land area. Unemployment rates remain below national averages in the region, which has a civilian labor force of 838,400.

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

A diverse customer base allows HRSD to maintain stable revenues. The ten largest customers account for only 9.3 percent of wastewater revenues for fiscal year 2016. In addition, HRSD's 2016 revenues contained only limited reliance (2.7 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. 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 \$1.5 billion, ten-year Capital Improvement Program. Regulatory requirements to reduce nutrient discharges, initiatives to ensure appropriate wet weather capacity



exists within the regional sanitary sewer system, major plant upgrades and replacements of interceptor pipelines drive the capital program. Major projects are currently under construction at the Army Base Treatment Plant and Virginia Initiative Plant.

To minimize the impacts of its capital investments on ratepayers, HRSD continues to pursue grant opportunities when available. In 2016, HRSD received approximately \$14.4 million in grant reimbursements for improvements to several of its treatment plants.

## **AWARDS AND ACKNOWLEDGMENTS**

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to HRSD for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2015. This was the 33rd 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 satisfied both generally accepted accounting principles and applicable legal requirements.

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

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

Respectfully submitted,



Edward Henifin, P.E.  
General Manager



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



Carrol L. Acors, CPA  
Chief of Accounting



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Hampton Roads Sanitation District  
Virginia**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2015**



Executive Director/CEO



# Principal Officials

June 30, 2016

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## **COMMISSIONERS**

Vishnu K. Lakdawala, PhD, Chair

Frederick N. Elofson, CPA, Vice-Chair

Michael E. Glenn

Arthur C. Bredemeyer

Maurice P. Lynch, PhD,

Stephen C. Rodriguez

Susan M. Rotkis

Willie Levenston, Jr.

## **COMMISSION SECRETARY**

Jennifer L. Cascio

## **SENIOR STAFF**

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

Phillip L. Hubbard, PE  
Special Assistant for  
Compliance Assurance

Bruce W. Husselbee, PE  
Director of Engineering

James J. Pletl, PhD  
Director of Water Quality

## **COUNSEL**

Kellam, Pickrell, Cox & Anderson, PC  
General Counsel

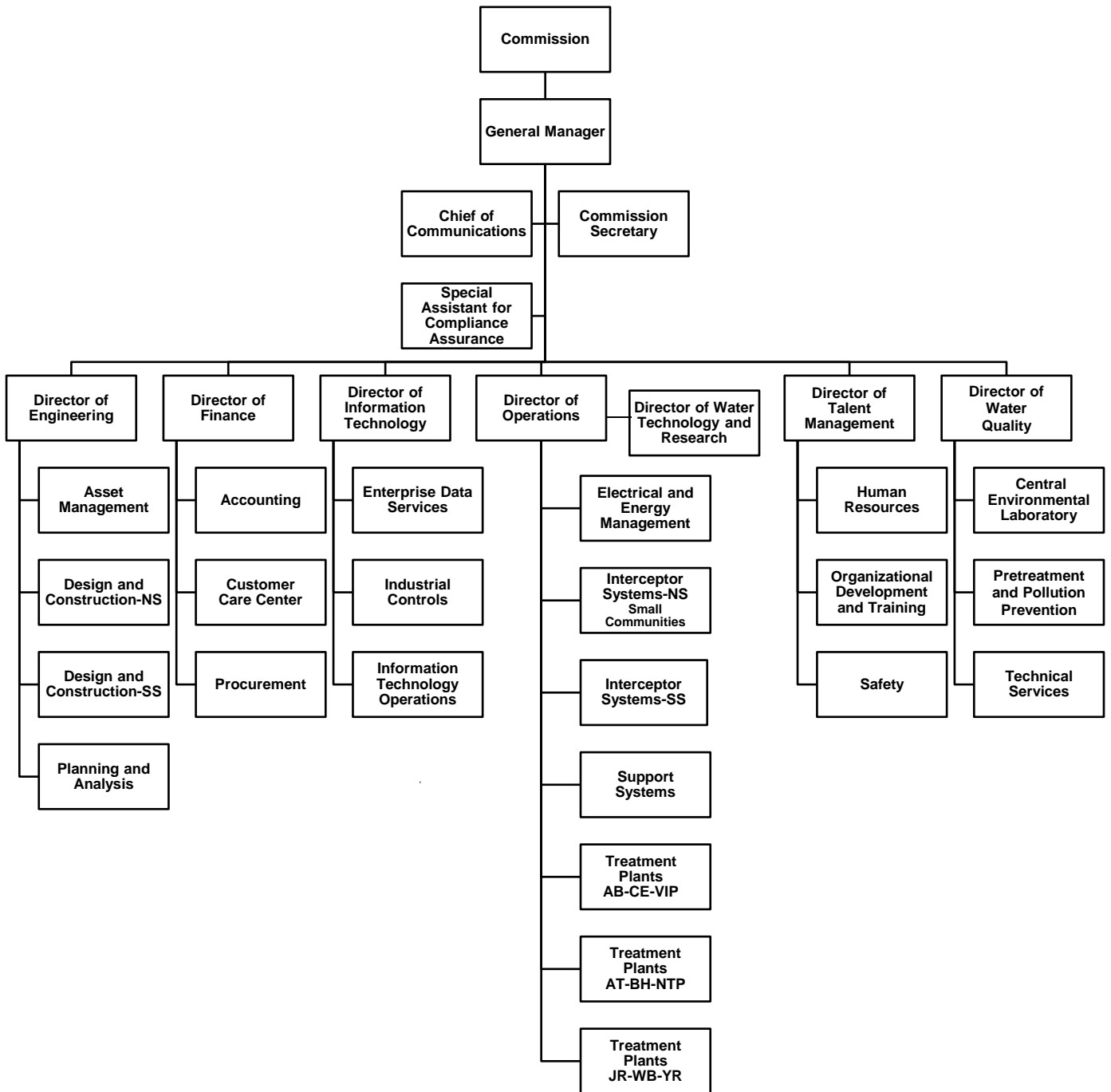
Jones, Blechman, Woltz & Kelly, PC  
Associate Counsel

AquaLaw, PLC  
Special Counsel

Norton Rose Fulbright US, LLP  
Bond Counsel

# HRSD Organization Chart

June 30, 2016



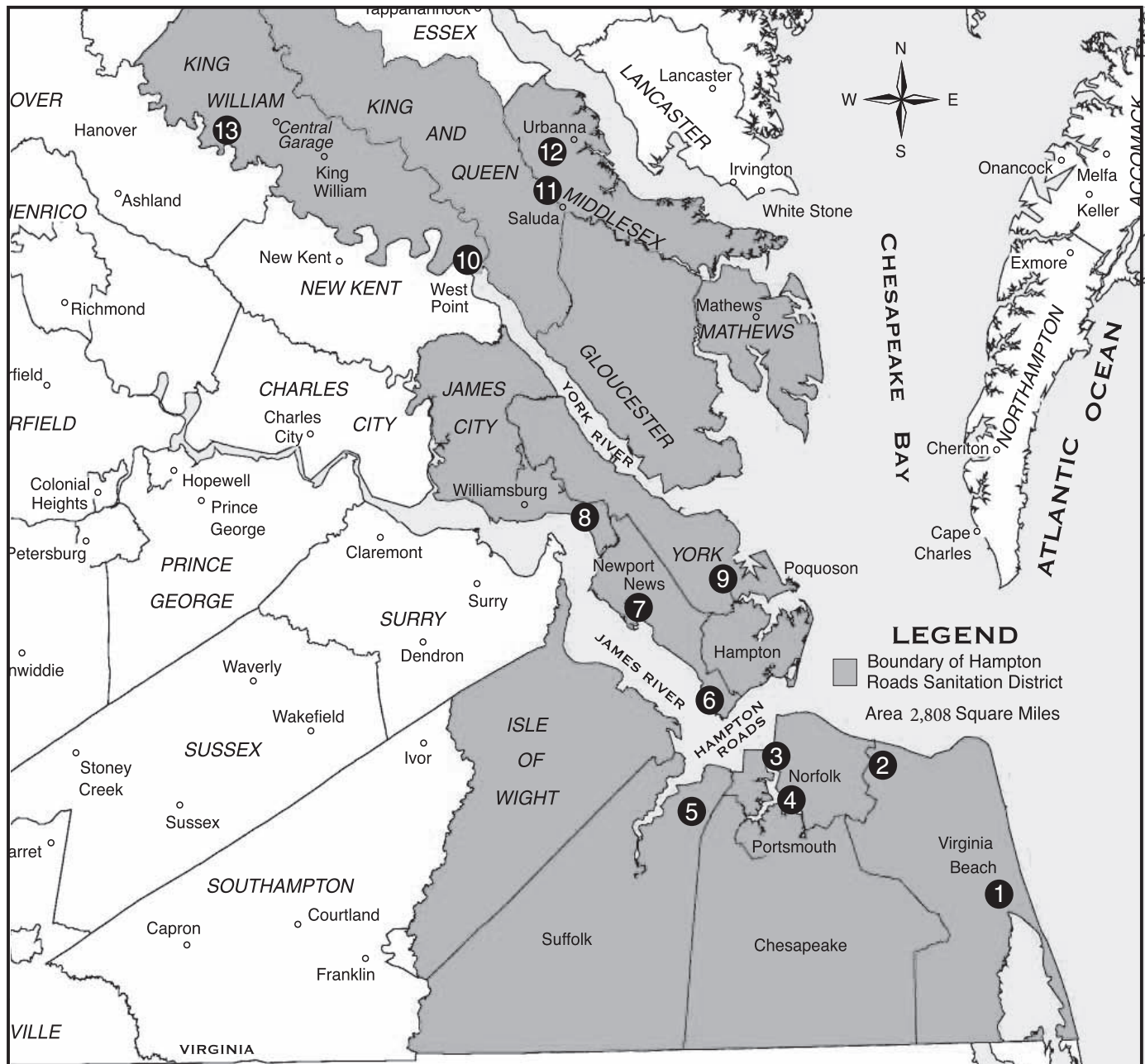
# HRSD

A Political Subdivision of the Commonwealth of Virginia

Major facilities include the following treatment plants:

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



2016

# History of HRSD

June 30, 2016

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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.

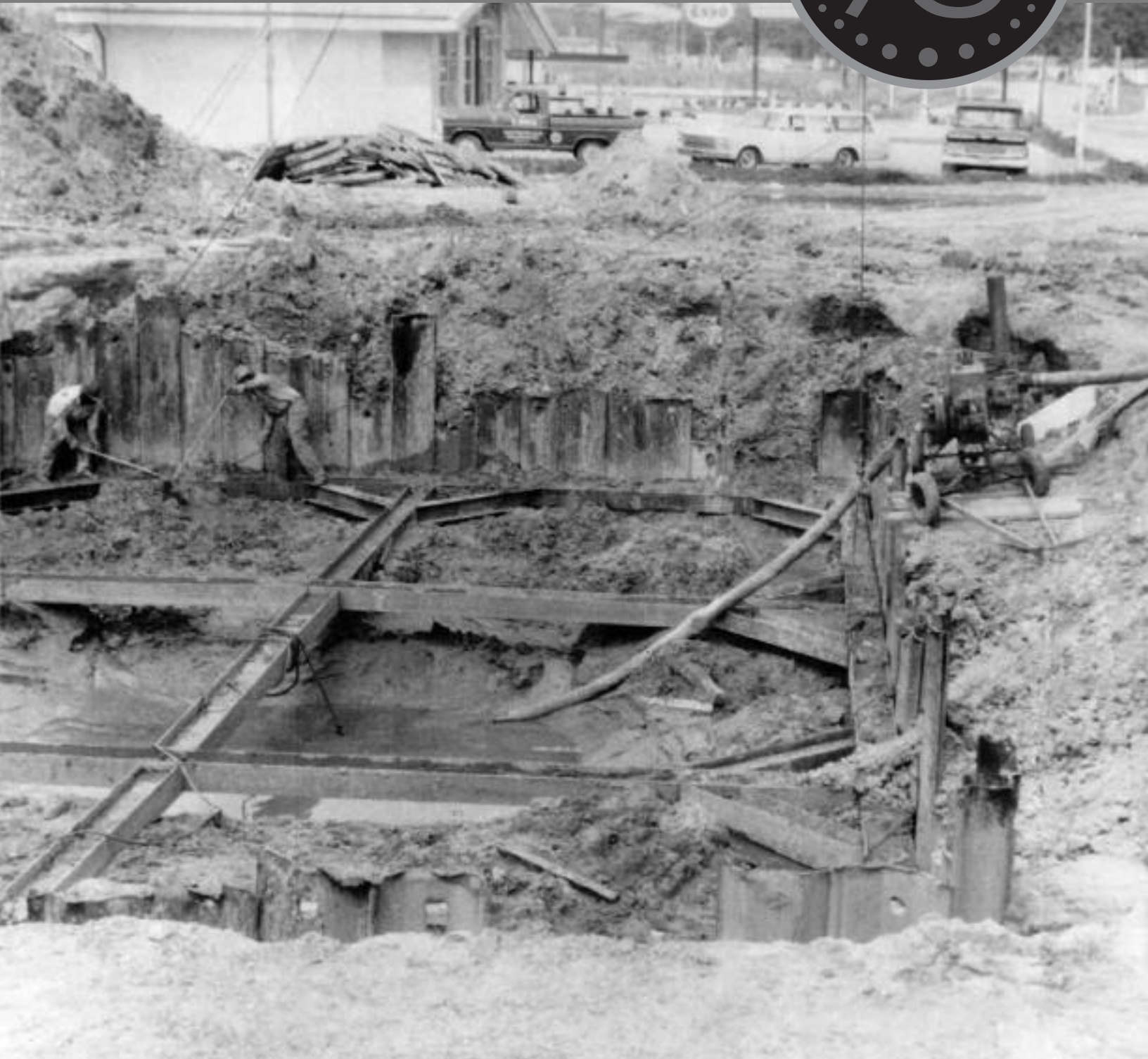
The Enabling Act provides for HRSD to operate as a political subdivision of the Commonwealth of Virginia for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants. Its affairs are controlled by a Commission of eight 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 2016.

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 to every HRSD treatment plant for outstanding compliance with National Pollutant Discharge Elimination System (NPDES) permits during calendar year 2015. The Army Base Treatment Plant was honored for 29 consecutive years of perfect permit compliance, an achievement unsurpassed in the nation. The other major treatment plants received the following awards in recognition of their outstanding permit compliance status: Atlantic—Gold, Boat Harbor—Platinum (14 consecutive years), Chesapeake-Elizabeth—Platinum (6 consecutive years), James River—Gold, Nansemond—Platinum (14 consecutive years), Virginia Initiative Plant—Platinum (20 consecutive years), Williamsburg—Platinum (21 consecutive years) and York River—Platinum (8 consecutive years). Two treatment plants in the Small Communities Division, Central Middlesex and King William, earned Gold Awards while Urbanna received a Silver Award. West Point received a Platinum Award for 5 consecutive years of perfect compliance.

HRSD's other Fiscal Year 2016 honors included the NACWA Public Information & Education National Environmental Achievement Award for the Education Program *H2w0w: Wonders of Water*. In addition, HRSD and the Virginia STEAM Academy received from Governor Terry McAuliffe a 2016 Programs that Work award presented by the Virginia Mathematics and Science Coalition. HRSD was the 2016 winner of the prestigious Inside Business River Star Hall of Fame Award and also was recognized by the Elizabeth River Project for Sustained Distinguished Performance as a Model Level River Star Business. HRSD's sustainable water recycling initiative was among the water issue solutions featured during the March 22, 2016, White House Water Summit in Washington, D.C.

# Financial Section







KPMG LLP  
Suite 1900  
440 Monticello Avenue  
Norfolk, VA 23510

## **Independent Auditors' Report**

The Commissioners  
Hampton Roads Sanitation District:

We have audited the accompanying financial statements of the Hampton Roads Sanitation District (HRSD), a component unit of the Commonwealth of Virginia, as of and for the years ended June 30, 2016 and 2015, and the related notes to the financial statements, which collectively comprise HRSD's basic financial statements for the years then ended as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

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

### ***Auditors' Responsibility***

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

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

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

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of HRSD as of June 30, 2016 and 2015, and the changes in its net position and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

### ***Emphasis of Matter***

As discussed in Note 12 to the basic financial statements, in fiscal year 2015, HRSD adopted new accounting guidance described in Governmental Accounting Standards Board No. 68, *Accounting and Financial Reporting for Pensions* and Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*. Our opinion is not modified with respect to this matter.



## **Other Matters**

### *Required Supplementary Information*

U.S. generally accepted accounting principles require that Management's Discussion and Analysis on pages 11 through 16 and the Required Supplementary Information and related Notes to Required Supplementary Information on pages 41 through 43 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Supplementary and Other Information*

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise HRSD's basic financial statements. The introductory section, statistical section and other supplemental section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures for the Last Ten Fiscal Years, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures for the Last Ten Fiscal Years is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

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

**KPMG LLP**

October 31, 2016



## **MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)**

This narrative overview and analysis of the financial activities of the Hampton Roads Sanitation District (HRSD) for the fiscal year ended June 30, 2016 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 \$44.8 million, or 8.0 percent, in 2016 as a result of this year's operations.
- Total revenues increased \$12.5 million, or 5.3 percent. This increase is primarily attributable to wastewater revenue rate increases.
- Operating expenses decreased \$2.4 million, or 1.2 percent, principally due to a \$5.3 million decrease in expenses for capital improvement assets that were not capitalized partially offset by a \$3.8 million increase in depreciation expense which was primarily due to the completion of major expansions of treatment plants and interceptor systems in 2015 and 2016.
- Non-operating expenses increased \$2.9 million, or 12.2 percent, primarily due to new capital distributions to localities.
- HRSD received \$14.4 million in capital grants from the Commonwealth of Virginia in 2016 to help finance its capital improvement program.
- Restricted cash and cash equivalents and investments increased \$5.1 million, or 5.9 percent, primarily due to new bonds issued for capital asset construction activity. Unrestricted cash and cash equivalents and investments increased \$62.5 million, or 48.3 percent, primarily as a result of increased cash flows from wastewater rate increases and expiration of the requirement to maintain a debt service reserve fund.
- Net Property, Plant and Equipment increased \$99.1 million, or 9.0 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 18 through 21 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 18 and 19 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 20 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 22 through 40 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 post employment benefits to its employees.

Required Supplementary Information can be found beginning on page 41 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 \$601.6 million at June 30, 2016 and by \$556.8 million at June 30, 2015.

By far, the largest portion of HRSD's net position (68.2 percent and 69.2 percent at June 30, 2016 and 2015, respectively) reflects its net investment in capital assets (e.g., land, buildings, machinery and equipment) less any related debt used to acquire those assets still outstanding, net of unspent bond proceeds. HRSD uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although HRSD's net investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, because the capital assets themselves cannot be liquidated to reduce these liabilities.

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

#### HRSD's Condensed Statements of Net Position

(in thousands)	2016	2015	2014	2016 vs. 2015	
				Dollars	Percent
Capital assets	\$ 1,200,404	\$ 1,101,351	\$ 1,013,958	\$ 99,053	9.0%
Current assets and noncurrent assets	357,804	291,573	367,381	66,231	22.7%
<b>Total assets</b>	<b>\$ 1,558,208</b>	<b>\$ 1,392,924</b>	<b>\$ 1,381,339</b>	<b>\$ 165,284</b>	<b>11.9%</b>
<b>Deferred outflows of resources</b>	<b>\$ 25,638</b>	<b>\$ 16,587</b>	<b>\$ -</b>	<b>\$ 9,051</b>	<b>54.6%</b>
Long-term liabilities	\$ 826,393	\$ 724,251	\$ 716,563	\$ 102,142	14.1%
Current liabilities	147,339	118,035	109,829	29,304	24.8%
<b>Total liabilities</b>	<b>\$ 973,732</b>	<b>\$ 842,286</b>	<b>\$ 826,392</b>	<b>\$ 131,446</b>	<b>15.6%</b>
<b>Deferred inflows of resources</b>	<b>\$ 8,510</b>	<b>\$ 10,400</b>	<b>\$ -</b>	<b>\$ (1,890)</b>	<b>-18.2%</b>
Net investment in capital assets	\$ 410,287	\$ 385,597	\$ 351,191	\$ 24,690	6.4%
Restricted for debt service	23,798	22,070	24,064	1,728	7.8%
Restricted for debt service reserve fund	-	44,118	45,207	(44,118)	-100.0%
Unrestricted	167,519	105,040	134,485	62,479	59.5%
<b>Total net position</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 554,947</b>	<b>\$ 44,779</b>	<b>8.0%</b>

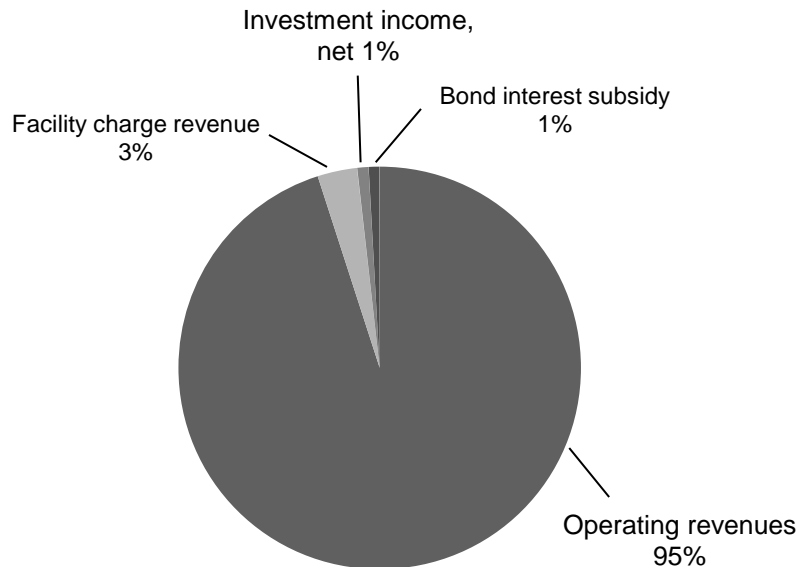
At June 30, 2016 and 2015, HRSD retained \$67.8 million and \$20.3 million of unspent bond proceeds, respectively. The increase in capital assets and the corresponding changes in current assets and noncurrent investments from 2014 through 2016 are primarily the result of issuing bonds in 2014 and 2016 and using these proceeds to fund capital improvements.

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

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

(in thousands)	2016	2015	2014	2016 vs. 2015	
				Dollars	Percent
Operating revenues	\$ 237,881	\$ 225,561	\$ 215,181	\$ 12,320	5.5%
Facility charge revenues	6,699	7,428	6,640	(729)	-9.8%
Investment income, net	2,313	1,409	1,450	904	64.2%
Bond interest subsidy	2,399	2,444	2,364	(45)	-1.8%
<b>Total revenues</b>	<b>249,292</b>	<b>236,842</b>	<b>225,635</b>	<b>12,450</b>	<b>5.3%</b>
Operating expenses:					
Wastewater treatment	106,575	114,137	109,149	(7,562)	-6.6%
General and administrative	40,026	38,678	33,012	1,348	3.5%
Depreciation and amortization	45,670	41,871	42,761	3,799	9.1%
Total operating expenses	192,271	194,686	184,922	(2,415)	-1.2%
Non-operating expenses:					
Bond issuance costs	1,713	768	-	945	123.0%
Capital distributions to localities	3,287	-	-	3,287	-
Interest expense	21,631	22,958	25,650	(1,327)	-5.8%
Total non-operating expenses	26,631	23,726	25,650	2,905	12.2%
<b>Total expenses</b>	<b>218,902</b>	<b>218,412</b>	<b>210,572</b>	<b>490</b>	<b>0.2%</b>
Income before capital contributions	30,390	18,430	15,063	11,960	64.9%
Capital contributions	14,389	19,519	13,888	(5,130)	-26.3%
Change in net position	44,779	37,949	28,951	6,830	18.0%
Total net position - beginning	556,825	518,876	525,996	37,949	7.3%
<b>Total net position - ending</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 554,947</b>	<b>\$ 44,779</b>	<b>8.0%</b>

## Revenues By Source



Operating revenues increased 5.5 percent in 2016 and 4.8 percent in 2015. The majority of these increases are attributable to various rate increases in metered public wastewater services. Facility charge revenues decreased \$0.7 million, or 9.8 percent, in 2016 due to a decrease in new construction activity across the region after increasing \$0.8 million, or 11.9 percent, in 2015.

Operating expenses decreased 1.2 percent in 2016 and increased 5.3 percent in 2015. Decreases in 2016 were principally due to a \$5.3 million decrease in capital improvement asset expense, partially offset by a \$3.8 million increase in depreciation expense. Increases in 2015 were principally due to a \$9.1 million increase in repairs and maintenance for repairs to collector systems required to maintain the integrity of the sewer and collector systems, and \$1.8 million for personnel services for a retirement incentive, partially offset by a \$1.4 million decrease in materials and supplies expense and a \$0.9 million decrease in depreciation costs related to the disposal of some capital assets in 2013.

In 2016 and 2015, HRSD received \$14.4 million and \$19.5 million, respectively, in capital grants to help finance its capital improvement program.

### CAPITAL ASSETS AND DEBT ADMINISTRATION

#### Capital Assets

At the end of 2016 and 2015, HRSD had approximately \$1.2 billion and \$1.1 billion, respectively, invested in a broad range of capital assets, including wastewater treatment plants, interceptor mains, pump stations, automotive, administrative and maintenance buildings, and office and computer software and equipment. These amounts represent a net increase of \$99.1 million, or 9.0 percent, in 2016 and \$87.4 million, or 8.6 percent, in 2015.

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

### HRSD's Capital Assets

(in thousands)	2016	2015	2014
Land	\$ 12,174	\$ 12,160	\$ 6,031
Treatment plants	557,145	446,624	436,007
Interceptor systems	351,828	329,271	286,168
Buildings	30,428	32,758	33,086
Small community facilities	18,649	15,446	16,889
Office equipment	5,314	6,909	8,798
Automotive	1,935	1,501	1,841
Other equipment	11,002	11,484	13,556
Software and intangible assets	21,108	15,817	15,274
	1,009,583	871,970	817,650
Construction in progress	190,821	229,381	196,308
<b>Net property, plant and equipment</b>	<b>\$ 1,200,404</b>	<b>\$ 1,101,351</b>	<b>\$ 1,013,958</b>

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

(in thousands)	2016	2015	2014
Balance at beginning of year	\$ 1,101,351	\$ 1,013,958	\$ 972,099
Additions	183,283	96,191	29,858
Retirements	-	(508)	(218)
Depreciation and amortization	(45,670)	(41,871)	(42,761)
Accumulated depreciation retired	-	508	218
Net increase (decrease) in construction in progress	(38,560)	33,073	54,762
<b>Balance at end of year</b>	<b>\$ 1,200,404</b>	<b>\$ 1,101,351</b>	<b>\$ 1,013,958</b>

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 2016, HRSD invested significant funds in improvements to the Army Base and Virginia Initiative treatment plants and the Nansemond, Virginia Initiative, and Williamsburg interceptor systems. During 2015, HRSD invested significant funds in interceptor systems and improvements to the Army Base and Virginia Initiative treatment plants to comply with the Chesapeake Bay Total Maximum Daily Load requirements.

### Long-Term Debt

At June 30, 2016, HRSD had a total of \$879.3 million in revenue bonds outstanding versus \$748.4 million in 2015, an increase of 17.5 percent. This increase is related to a new revenue bond in the par amount of \$246.8 million and a new variable rate bond in the amount of \$50 million, partially offset by payments on and refunds of existing senior and subordinate debt.

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

### HRSD's Outstanding Debt

(in thousands, net of premium)	2016	2015	2014
Senior revenue bonds	\$ 444,616	\$ 609,005	\$ 634,107
Subordinate revenue bonds	361,463	99,195	109,850
<b>Total outstanding debt</b>	<b>\$ 806,079</b>	<b>\$ 708,200</b>	<b>\$ 743,957</b>

HRSD's financial strengths are reflected in its high credit ratings:

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	Aa2	n/a	n/a

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

"Operating Expenses" means those current expenses paid by the District that may be required to pay the cost of maintaining, repairing and operating the Wastewater System, including, but not limited to, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the Wastewater System, insurance premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program. Operating Expenses 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 the District 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 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)

On October 14, 2014, HRSD used unrestricted cash on hand to fund the Debt Service Reserve Fund (DSRF) in an amount equivalent to the maximum annual debt service on all of the HRSD's debt. Once the Debt Service Reserve Fund requirement is triggered, the Trust Agreement requires HRSD to exceed the Long-Term Debt Service Coverage requirement for two consecutive years in order to release the reserved funds, which HRSD met in FY 2014 and FY 2015. The debt service reserve fund amount is shown as restricted on the statements of net position as of June 30, 2015 but was not required as of June 30, 2016.

More detailed information regarding HRSD's capital assets and long-term debt is presented in Notes 5 and 8, respectively.

## ECONOMIC FACTORS AND RATES

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 116 million gallons per day (MGD) to approximately 113 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

In 2016, wastewater revenues increased as a result of planned rate increases needed, in large part, to fund HRSD's capital improvement program. Facility charge revenues, which are generally dependent on new growth and economic expansion, decreased \$0.7 million, or 9.8 percent, in 2016 after increasing \$0.8 million, or 11.9 percent, in 2015. Facility charge revenues comprised only 3 percent of HRSD's total revenues in both 2016 and 2015.

Wastewater treatment rates for the 2016 fiscal year were increased by approximately 8 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. Facility charges, which provide funding for increased capacity resulting from new growth, were also increased.

It is anticipated that the average residential customer bill will rise by only \$2.47 per month in fiscal year 2017.

#### **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.

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**HAMPTON ROADS SANITATION DISTRICT  
STATEMENTS OF NET POSITION  
AS OF JUNE 30, 2016 AND 2015**

**ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

(in thousands)

	2016	2015
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 68,314	\$ 7,825
Cash and cash equivalents - Restricted	48,952	86,451
Investments	18,544	19,926
Accounts receivable, net	38,796	38,138
Accrued interest	288	237
Other current assets	7,188	9,794
<b>TOTAL CURRENT ASSETS</b>	<b>182,082</b>	<b>162,371</b>
<b>NON-CURRENT ASSETS</b>		
Cash and cash equivalents - Restricted	42,607	-
Investments	105,009	101,649
Inventory	28,106	27,553
	<b>175,722</b>	<b>129,202</b>
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>		
Land	12,174	12,160
Treatment plants	1,170,180	1,036,055
Interceptor systems	498,952	467,277
Buildings	45,359	45,296
Small community facilities	25,305	22,551
Office equipment	44,612	44,364
Automotive	17,342	16,217
Other equipment	34,011	31,976
Software and intangible assets	39,027	27,783
	<b>1,886,962</b>	<b>1,703,679</b>
Less: Accumulated depreciation and amortization	877,379	831,709
	<b>1,009,583</b>	<b>871,970</b>
Construction in progress	190,821	229,381
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>	<b>1,200,404</b>	<b>1,101,351</b>
<b>TOTAL NON-CURRENT ASSETS</b>	<b>1,376,126</b>	<b>1,230,553</b>
<b>TOTAL ASSETS</b>	<b>\$ 1,558,208</b>	<b>\$ 1,392,924</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred loss on debt refunding	21,416	12,380
Pension contributions subsequent to measurement date	4,222	4,207
<b>TOTAL DEFERRED OUTFLOWS OF RESOURCES</b>	<b>25,638</b>	<b>16,587</b>
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>	<b>\$ 1,583,846</b>	<b>\$ 1,409,511</b>

(continued)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT  
STATEMENTS OF NET POSITION  
AS OF JUNE 30, 2016 AND 2015**

**LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION**

(in thousands)

	2016	2015
<b>CURRENT LIABILITIES</b>		
Trade and contracts payable	\$ 32,718	\$ 36,277
Contract retention	7,742	6,165
Accrued salaries and wages	1,906	1,482
Current portion of bonds payable	32,421	31,618
Variable rate demand bonds	50,000	25,000
Current portion of compensated absences	4,672	2,696
Debt interest payable	10,818	9,673
Other liabilities	7,062	5,124
TOTAL CURRENT LIABILITIES	<u>147,339</u>	<u>118,035</u>
<b>LONG-TERM LIABILITIES</b>		
Compensated absences	3,403	5,008
Net pension liability	26,117	27,464
Bonds payable	796,873	691,779
TOTAL LONG-TERM LIABILITIES	<u>826,393</u>	<u>724,251</u>
TOTAL LIABILITIES	<u>973,732</u>	<u>842,286</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Differences between expected and actual experience	3,951	-
Net difference between projected and actual earnings on pension plan investments	4,559	10,400
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>8,510</u>	<u>10,400</u>
<b>NET POSITION</b>		
Net investment in capital assets	410,287	385,597
Restricted for debt service	23,798	22,070
Restricted for debt service reserve fund	-	44,118
Unrestricted	167,519	105,040
TOTAL NET POSITION	<u>601,604</u>	<u>556,825</u>
<b>TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>	<u><u>\$ 1,583,846</u></u>	<u><u>\$ 1,409,511</u></u>

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, 2016 and 2015**

(in thousands)

	2016	2015
<b>OPERATING REVENUES</b>		
Wastewater treatment charges	\$ 234,020	\$ 221,626
Miscellaneous	3,861	3,935
<b>TOTAL OPERATING REVENUES</b>	<u>237,881</u>	<u>225,561</u>
<b>OPERATING EXPENSES</b>		
Wastewater treatment	106,575	114,137
General and administrative	40,026	38,678
Depreciation and amortization	45,670	41,871
<b>TOTAL OPERATING EXPENSES</b>	<u>192,271</u>	<u>194,686</u>
<b>OPERATING INCOME</b>	<u>45,610</u>	<u>30,875</u>
<b>NON-OPERATING REVENUES (EXPENSES)</b>		
Wastewater facility charges	6,699	7,428
Investment income	1,563	1,695
Bond interest subsidy	2,399	2,444
Change in fair value of investments	750	(286)
Capital distributions to localities	(3,287)	-
Bond issuance costs	(1,713)	(768)
Interest expense	(21,631)	(22,958)
<b>NET NON-OPERATING EXPENSES</b>	<u>(15,220)</u>	<u>(12,445)</u>
<b>INCOME BEFORE CAPITAL CONTRIBUTIONS</b>	30,390	18,430
<b>CAPITAL CONTRIBUTIONS (DISTRIBUTIONS)</b>		
State capital grants received	14,389	16,519
Other capital contributions received	-	3,000
	<u>14,389</u>	<u>19,519</u>
<b>CHANGE IN NET POSITION</b>	44,779	37,949
<b>TOTAL NET POSITION - Beginning</b>	556,825	554,947
Opening adjustment of net position (Note 12)	-	(36,071)
<b>TOTAL NET POSITION - Ending</b>	<u><u>\$ 601,604</u></u>	<u><u>\$ 556,825</u></u>

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT**  
**STATEMENTS OF CASH FLOWS**  
**FOR THE FISCAL YEARS ENDED JUNE 30, 2016 and 2015**

(in thousands)		
	2016	2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers	\$ 235,808	\$ 223,121
Other operating revenues	3,861	3,935
Cash payments to suppliers for goods and services	(102,740)	(99,483)
Cash payments to employees for services	(51,006)	(52,578)
Net cash provided by operating activities	<u>85,923</u>	<u>74,995</u>
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>		
Capital distributions to localities	<u>(3,287)</u>	<u>-</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Wastewater facility charges	6,699	7,428
Acquisition and construction of property, plant and equipment	(137,316)	(123,930)
Proceeds from capital debt	150,022	-
Bond interest subsidy	2,399	2,444
Principal paid on capital debt	(28,181)	(28,672)
State capital grants	17,367	16,779
Deposit used for capital asset construction	-	(3,000)
Bond issuance costs	(1,713)	(768)
Interest paid on capital debt	(26,600)	(28,551)
Net cash used in capital and related financing activities	<u>(17,323)</u>	<u>(158,270)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchases of investments	(181,239)	(121,058)
Sales and maturities of investments	180,011	119,658
Interest and dividends on investments	1,512	1,770
Net cash provided by (used in) investing activities	<u>284</u>	<u>370</u>
<b>NET DECREASE IN CASH AND CASH EQUIVALENTS</b>	65,597	(82,905)
<b>CASH AND CASH EQUIVALENTS, AT BEGINNING OF YEAR</b>	94,276	177,181
<b>CASH AND CASH EQUIVALENTS, AT END OF YEAR</b>	<u>\$ 159,873</u>	<u>\$ 94,276</u>
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities</b>		
(in thousands)		
Operating income	\$ 45,610	\$ 30,875
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	45,670	41,871
Pension adjustments	-	(2,414)
(Increase) decrease in operating assets		
Accounts receivable	(658)	(701)
Inventory	(553)	(2,408)
Net change in other current assets	(372)	(209)
Increase (decrease) in operating liabilities		
Trade and contracts payable	(3,255)	6,887
Accrued salaries and wages	424	83
Compensated absences	371	(234)
Net change in other liabilities	1,938	1,245
Pension liabilities	(3,252)	-
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<u>\$ 85,923</u>	<u>\$ 74,995</u>
<b>Noncash Capital and Related Financing Activities:</b>		
Proceeds of Refunding Debt Principal	\$ 170,785	\$ 130,810
Refunding of debt principal	(170,785)	(130,810)
Amortization of premium	(4,360)	(2,221)
Amortization of deferred loss on bond refunding	(1,433)	(610)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2016 and 2015**

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**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 five 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	York County
City of Portsmouth	James City County	

**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 adopted 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. 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 and other corporate notes and bonds, and municipal bonds, are reported at fair value. Money market investments include accounts that are invested in government securities and are valued at net asset value (NAV) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), which is measured at amortized cost. See Notes 3 and 13 for additional discussion of cash and cash equivalent and investment valuations. HRSD's investment practices are governed by its formal investment policy.

#### Allowance for Uncollectible Accounts

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

#### Inventory

Inventory is carried at the lower of cost or market value and consists primarily of operating and maintenance materials.

#### Property, Plant and Equipment

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

Property, plant and equipment purchased or constructed are reported at cost, including interest cost on funds borrowed to finance the construction of major capital additions. The capitalization threshold is \$5,000. Donated assets are reported at fair 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 two 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 is pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2015 and 2014. These contributions will be recognized as a reduction of the Net Pension Liability during the years ended June 30, 2017 and 2016, 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 government has two types of these items, the net difference between projected and actual earnings on pension plan investments, which is amortized over future years, and the difference between expected and actual experience.

### 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.



## 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, 2016, HRSD adopted GASB Statement No. 72, *Fair Value Measurement and Application*. The objective of Statement No. 72 is to improve financial reporting by clarifying the definition of fair value for financial reporting purposes, establishing general principles for measuring fair value, providing additional fair value application guidance, and enhancing disclosure for fair value measurements. HRSD implemented the requirements of GASB Statement No. 72 by providing additional information about investments measured at fair value in Note 13 of the Notes to the Financial Statements.

During the fiscal year ended June 30, 2016, HRSD adopted GASB Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. The objective of Statement No. 76 is to identify—in the context of the current governmental financial reporting environment—the sources of accounting principles used to prepare financial statements of state and local governmental entities in conformity with generally accepted accounting principles (GAAP) and the framework for selecting those principles. HRSD implemented the requirements of GASB Statement No. 76 by preparing its financial report in conformity with the order of priority of pronouncements and other sources of accounting and financial reporting guidance that a governmental entity should apply using the hierarchy established by the Statement.

During the fiscal year ended June 30, 2016, HRSD adopted GASB Statement No. 79, *Certain External Investment Pools and Pool Participants*. The objective of Statement No. 79 is to address, for certain external investment pools and their participants, the accounting and financial reporting implications that result from changes in the regulatory provisions referenced by previous accounting and financial reporting standards. HRSD implemented the requirements of GASB Statement No. 79 by ensuring the external investment pool used by HRSD met the criteria set forth in the Statement to allow it to be measured at amortized cost.

During the fiscal year ended June 30, 2016, HRSD adopted GASB Statement No. 82, *Pension Issues - an amendment of GASB Statements No. 67, No. 68 and No. 73*. The objective of GASB Statement No. 82 is to address certain issues that have been raised with respect to Statements No. 67, Financial Reporting for Pension Plans, No. 68, Accounting and Financial Reporting for Pensions, and No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. Specifically, GASB Statement No. 82 addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. As issued, GASB Statements No. 67 and 68 required presentation of covered-employee payroll, which is the payroll of employees that are provided with pensions through the pension plan, and ratios that use that measure, in schedules of required supplementary information. GASB Statement No. 82 amends those Statements to instead require the presentation of covered payroll, defined as the payroll on which contributions to a pension plan are based, and ratios that use that measure. HRSD implemented the provisions of GASB Statement No. 82 by including in the required presentations only the amount of payroll covered by the pension plan, not the total payroll for all pension-covered employees.

## 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, 2016 and 2015, the carrying values of HRSD's deposits were \$47,891,000 and \$73,730,000, respectively, and the bank balances were \$48,864,000 and \$76,335,000, respectively. All of the bank balances at June 30, 2016 were covered by federal depository insurance or collateralized in accordance with the Virginia Security for Public Deposits Act (the Act).

In accordance with the Act, the depository institution pledged collateral in the form of federal obligations with a fair value equal to 110 percent of HRSD's deposits with a third party trustee in the name of the Treasurer of the Commonwealth. In the event that the banking institution fails, the Treasurer will take possession of the collateral, liquidate it and reimburse HRSD up to the value of its deposits. The State Treasury Board is responsible for monitoring compliance with the collateralization and reporting requirements of the Act and for notifying local governments of compliance by banks.

*Credit Risk.* HRSD invests overnight in money market accounts that are invested in government securities and the PFM Funds Prime Series – SNAP Fund Class (SNAP) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), for which oversight is provided by the Treasury Board of Virginia. As of June 30, 2016 and 2015, HRSD had deposits in Merrill Lynch's FFI Government Fund and Fidelity's Government Money Market Fund that were rated AAAM by Standard & Poor's. HRSD's investment in the LGIP was rated AAAM by Standard & Poor's.

### Investments

As of June 30, HRSD had the following investments and maturities:

(in thousands)

#### Investment Maturities (in years)

<b>As of June 30, 2016</b>	<b>Fair Value</b>	<b>Less Than 1</b>	<b>1-3</b>
<u>Investment Type</u>			
U.S. Treasury Securities	\$ 57,220	\$ 7,792	\$ 49,428
Federal Agency Notes / Bonds	23,471	1,000	22,471
Certificates of Deposit	9,704	-	9,704
Commercial Paper	9,752	9,752	-
Corporate Notes / Bonds	19,815	-	19,815
Supranationals	3,591	-	3,591
<b>Total</b>	<b>\$ 123,553</b>	<b>\$ 18,544</b>	<b>\$ 105,009</b>

<b>As of June 30, 2015</b>	<b>Fair Value</b>	<b>Less Than 1</b>	<b>1-3</b>
<u>Investment Type</u>			
U.S. Treasury Securities	\$ 62,655	\$ 5,890	\$ 56,765
Federal Agency Notes / Bonds	26,702	-	26,702
Certificates of Deposit	11,651	9,402	2,249
Commercial Paper	2,446	2,446	-
Corporate Notes / Bonds	15,282	477	14,805
Municipal Securities	1,711	1,711	-
Supranationals	1,128	-	1,128
<b>Total</b>	<b>\$ 121,575</b>	<b>\$ 19,926</b>	<b>\$ 101,649</b>

*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 Trustee for its investments, The Bank of New York Trust Department, as recipient of all investment transactions on a delivery versus pay basis. The Trustee may not be a counterparty to the investment transaction. At June 30, 2016 and 2015, the Trust Department of the Bank of New York held \$123,553,000 and \$121,575,000, respectively, in investments in the Trustee's name for HRSD.

*Credit Risk.* HRSD's Trust Agreement permits HRSD to invest in investment instruments that are authorized by the Commonwealth. HRSD's investment securities using the Standard & Poor's credit quality ratings scale are presented below:

Standard & Poor's Credit Quality Ratings Scale

As of June 30, 2016

(in thousands)

Investments

	Standard & Poor's Credit Rating by Investment Type						Total
	AAA	AA+	AA	AA-	A-1+	A-1	
U.S. Treasury Securities	\$ -	\$ 57,220	\$ -	\$ -	\$ -	\$ -	\$ 57,220
Federal Agency Notes / Bonds	-	23,471	-	-	-	-	23,471
Certificates of Deposit	-	-	-	4,727	4,977	-	9,704
Commercial Paper	-	-	-	-	-	9,752	9,752
Corporate Notes / Bonds	3,047	2,851	1,326	12,591	-	-	19,815
Supranationals	3,591	-	-	-	-	-	3,591
<b>Total Investments</b>	<b>\$ 6,638</b>	<b>\$ 83,542</b>	<b>\$ 1,326</b>	<b>\$ 17,318</b>	<b>\$ 4,977</b>	<b>\$ 9,752</b>	<b>\$ 123,553</b>

As of June 30, 2015

(in thousands)

Investments

	AAA	AA+	AA	AA-	A-1+	A-1	Total
U.S. Treasury Securities	\$ -	\$ 62,655	\$ -	\$ -	\$ -	\$ -	\$ 62,655
Federal Agency Notes / Bonds	-	26,702	-	-	-	-	26,702
Certificates of Deposit	-	-	-	6,750	-	4,901	11,651
Commercial Paper	-	-	-	-	-	2,446	2,446
Corporate Notes / Bonds	3,838	3,207	4,716	3,521	-	-	15,282
Municipal Securities	-	1,550	161	-	-	-	1,711
Supranationals	1,128	-	-	-	-	-	1,128
<b>Total Investments</b>	<b>\$ 4,966</b>	<b>\$ 94,114</b>	<b>\$ 4,877</b>	<b>\$ 10,271</b>	<b>\$ -</b>	<b>\$ 7,347</b>	<b>\$ 121,575</b>

*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 is calculated as follows:

(in thousands)	2016	2015
Fair value of investments, end of year	\$ 123,553	\$ 121,575
Add: Proceeds of investments sold or maturing during the year	180,011	119,658
Less: Cost of investments purchased during the year	(181,239)	(121,058)
Less: Fair value of investments, beginning of year	(121,575)	(120,461)
Change in fair value of investments	<u>\$ 750</u>	<u>\$ (286)</u>

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

(in thousands)	2016	2015
Debt service	\$ 23,798	\$ 22,070
Debt service reserve fund	-	44,118
Revenue bond construction funds - current	25,154	20,263
Revenue bond construction funds - noncurrent	42,607	-
Total cash, cash equivalents and investments - restricted	<u>\$ 91,559</u>	<u>\$ 86,451</u>

#### NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

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

(in thousands)	2016	2015
Balance, beginning of year	\$ 1,949	\$ 1,651
Add: Current provision for uncollectible accounts	2,446	2,196
Less: Charge-off of uncollectible accounts	(2,113)	(1,898)
Balance, end of year	<u>\$ 2,282</u>	<u>\$ 1,949</u>

HRSD's collection ratio for the years ended June 30, 2016 and 2015 was 99.1 percent for each year.

#### NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

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

(in thousands)	Balance 6/30/14	Additions	Transfers/ Retirements	Balance 6/30/15	Additions	Transfers/ Retirements	Balance 6/30/16
<u>Non-Depreciable Capital Assets</u>							
Land	\$ 6,031	\$ 6,129	\$ -	\$ 12,160	\$ 14	\$ -	\$ 12,174
Construction in progress	196,308	102,436	(69,363)	229,381	108,420	(146,980)	190,821
<u>Depreciable Capital Assets</u>							
Treatment plants	1,002,898	33,157	-	1,036,055	134,125	-	1,170,180
Interceptor systems	415,988	51,289	-	467,277	31,675	-	498,952
Buildings	45,132	164	-	45,296	63	-	45,359
Small community facilities	22,551	-	-	22,551	2,754	-	25,305
Office equipment	43,933	431	-	44,364	248	-	44,612
Automotive	16,129	596	(508)	16,217	1,125	-	17,342
Other equipment	31,575	401	-	31,976	2,035	-	34,011
Software and intangible assets	23,759	4,024	-	27,783	11,244	-	39,027
Total	<u>\$ 1,804,304</u>	<u>\$ 198,627</u>	<u>\$ (69,871)</u>	<u>\$ 1,933,060</u>	<u>\$ 291,703</u>	<u>\$ (146,980)</u>	<u>\$ 2,077,783</u>
Less accumulated depreciation and amortization							
Treatment plants	(566,891)	(22,540)	-	(589,431)	(23,604)	-	(613,035)
Interceptor systems	(129,820)	(8,186)	-	(138,006)	(9,119)	-	(147,125)
Buildings	(12,046)	(1,443)	-	(13,489)	(1,441)	-	(14,930)
Small community facilities	(5,662)	(492)	-	(6,154)	(502)	-	(6,656)
Office equipment	(35,135)	(2,320)	-	(37,455)	(1,843)	-	(39,298)
Automotive	(14,288)	(936)	508	(14,716)	(691)	-	(15,407)
Other equipment	(18,019)	(2,473)	-	(20,492)	(2,517)	-	(23,009)
Software and intangible assets -amortization	(8,485)	(3,481)	-	(11,966)	(5,953)	-	(17,919)
Total	<u>(790,346)</u>	<u>(41,871)</u>	<u>508</u>	<u>(831,709)</u>	<u>(45,670)</u>	<u>-</u>	<u>(877,379)</u>
Net property, plant and equipment	<u>\$ 1,013,958</u>	<u>\$ 156,756</u>	<u>\$ (69,363)</u>	<u>\$ 1,101,351</u>	<u>\$ 246,033</u>	<u>\$ (146,980)</u>	<u>\$ 1,200,404</u>

## NOTE 6 - COMPENSATED ABSENCES

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

(in thousands)	Balance			Balance			Balance
	<u>6/30/14</u>	<u>Earned</u>	<u>Taken</u>	<u>6/30/15</u>	<u>Earned</u>	<u>Taken</u>	<u>6/30/16</u>
Annual leave	\$ 5,080	\$ 1,552	\$ (1,791)	\$ 4,841	\$ 3,216	\$ (3,063)	\$ 4,994
Sick leave	2,835	993	(1,141)	2,687	1,312	(1,288)	2,711
Paid time off	23	237	(84)	176	515	(321)	370
Total	7,938	<u>\$ 2,782</u>	<u>\$ (3,016)</u>	7,704	<u>\$ 5,043</u>	<u>\$ (4,672)</u>	8,075
Less: Current liability	2,591			2,696			4,672
Long-term liability	<u>\$ 5,347</u>			<u>\$ 5,008</u>			<u>\$ 3,403</u>

## NOTE 7 - DEFINED BENEFITS PLANS

### Post-Retirement Health Benefit Plan

HRSD provides other post employment benefits (OPEB) for its employees through a single employer defined benefit plan. The plan was established and may be amended by the Commission.

#### Plan Description

HRSD's plan provides two different health and dental benefit plans for eligible retired employees and their beneficiaries (members). Members become eligible for benefits after 15 years of service and when a member qualifies for unreduced retirement benefits from the Virginia Retirement System. Participating beneficiaries may continue coverage under the plan after the death of the retiree. Medicare-eligible members may participate in a Medicare supplement plan. Members not eligible for Medicare may participate in a high deductible health plan.

#### Funding Policy

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 shares the cost of coverage under the plan with participating retirees by paying the difference between the contributions it requires retirees to make and the annual required contribution (ARC). The current contribution rate is 6 percent of annual covered payroll.

#### Annual OPEB Cost

HRSD's annual OPEB cost is calculated based on an actuarially determined ARC. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. Information related to the HRSD's annual OPEB cost, ARC, actual contributions, and changes to the net OPEB obligation is as follows:

(in thousands)						
Fiscal Year Ended	ARC	Actuarial Adjustment	Annual OPEB Cost	Percentage of Annual ARC Contributed	Net OPEB Obligation	
2016	\$ 2,178	\$ -	\$ 2,178	100%	\$ -	
2015	\$ 2,177	\$ -	\$ 2,177	100%	\$ -	
2014	\$ 2,244	\$ -	\$ 2,244	100%	\$ -	

## Funded Status and Funding Progress

The funded status of the plan as of June 30, 2016 was as follows:

(in thousands)	
Actuarial accrued liability (AAL)	\$ 45,337
Actuarial value of plan assets	39,272
Unfunded actuarial accrued liability (UAAL)	<u>\$ 6,065</u>
Funded ratio (actuarial value of plan assets/AAL)	86.6%
Annual covered payroll (active plan members)	\$ 47,838
UAAL as a percentage of covered payroll	12.7%

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the possibility of occurrence of events far into the future. Examples include assumptions about future employment, investment returns, mortality and healthcare cost trends. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

## Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by HRSD and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The information presented in the required supplemental schedules was determined as part of the actuarial valuations at the dates indicated. The actuarial value of plan assets is equal to fair value.

Additional information at June 30, 2016, the date of the most recent valuation, follows:

Actuarial cost method	Projected unit credit method
Amortization method	Level percent of pay, closed
Amortization period	An experience gain/loss base is created each year and amortized over a 15 year period
Asset valuation	Smoothed market value with phase-in, using a 5-year smoothing period
Actuarial assumptions:	
Discount Rate	6%
Annual healthcare cost trend	5.0%, increasing to 5.5% after 3 years and 3.2% after 85 years
Assumed rate of inflation	2.5%

## 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 50 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 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 31, 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.



### Employees Covered by Benefit Terms

As of the June 30, 2014 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	<u>Number</u>
Inactive Members or Their Beneficiaries Currently Receiving Benefits	301
Inactive Members	
Vested	103
Non-Vested	180
Active Elsewhere in VRS	<u>81</u>
Total Inactive Members	364
Active Members	<u>759</u>
Total	<u><u>1,424</u></u>

### 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 year ended June 30, 2016 was 8.96% of covered compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2013.

This rate, when combined with employee contributions, was 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 \$4,222,000 and \$4,207,000 for the years ended June 30, 2016 and 2015, respectively.

### Net Pension Liability

HRSD's net pension liability was measured as of June 30, 2015. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2014, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2015.

### Actuarial Assumptions

The total pension liability for employees in HRSD's retirement plan was based on an actuarial valuation of June 30, 2014, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2015.

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	7%, net of pension plan investment expense, 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 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% to simplify preparation of pension liabilities.

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, 2014 valuation 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:

- Update 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
U.S. Equity	19.50%	6.46%	1.26%
Developed Non-U.S. Equity	16.50%	6.28%	1.04%
Emerging Market Equity	6.00%	10.00%	0.60%
Fixed Income	15.00%	0.09%	0.01%
Emerging Debt	3.00%	3.51%	0.11%
Rate Sensitive Credit	4.50%	3.51%	0.16%
Non-Rate Sensitive Credit	4.50%	5.00%	0.23%
Convertibles	3.00%	4.81%	0.14%
Public Real Estate	2.25%	6.12%	0.14%
Private Real Estate	12.75%	7.10%	0.91%
Private Equity	12.00%	10.41%	1.25%
Cash	1.00%	-1.50%	-0.02%
Total	<u>100.00%</u>		<u>5.83%</u>
	Inflation		<u>2.50%</u>
	* Expected arithmetic nominal return		<u>8.33%</u>

\* Using stochastic projection results provides an expected range of real rates of return over various time horizons. Looking at one year results produces an expected real rate of 8.33% but also has a high standard deviation, which means there is high volatility. Over larger time horizons the volatility declines significantly and provides a median return of 7.44%, including expected inflation of 2.50%.

## Discount Rate

The discount rate used to measure the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumed that VRS member contributions will be made per the VRS statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2018, the rate contributed by the HRSD for the retirement plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 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, 2013	\$ 187,685	\$ 147,501	\$ 40,184
Changes for the year - Increase (Decrease)			
Service cost	3,943	-	3,943
Interest	12,907	-	12,907
Contributions - employer	-	4,114	(4,114)
Contributions - employee	-	2,267	(2,267)
Net investment income	-	23,313	(23,313)
Benefit payments, including refunds of employee contributions	(6,607)	(6,607)	-
Administrative expense	-	(125)	125
Other changes	-	1	(1)
Net changes	10,243	22,963	(12,720)
Balances at June 30, 2014	197,928	170,464	27,464
Changes for the year - Increase (Decrease)			
Service cost	4,115		4,115
Interest	13,559		13,559
Difference between expected and actual experience	(4,910)		(4,910)
Contributions - employer		4,099	(4,099)
Contributions - employee		2,314	(2,314)
Net investment income		7,807	(7,807)
Benefit payments, including refunds of employee contributions	(8,446)	(8,446)	-
Administrative expense		(107)	107
Other changes		(2)	2
Net changes	4,318	5,665	(1,347)
Balances at June 30, 2015	\$ 202,246	\$ 176,129	\$ 26,117

## 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, 2015	\$ 55,532	\$ 26,117	\$ 1,774

## Pension Expenses and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

HRSD recognized pension expense of \$863,000 and \$1,793,000 for the years ended June 30, 2016 and 2015, respectively. At June 30, 2016, HRSD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 3,951
Net difference between projected and actual earnings on plan investments	-	4,559
Employer contributions subsequent to the measurement date	4,222	-
	<u>\$ 4,222</u>	<u>\$ 8,510</u>

HRSD reported \$4,222,000 as deferred outflows of resources resulting from HRSD's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended June 30, 2017. Other amounts reported as deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

Year ended June 30:	(in thousands)
2017	\$ 2,749
2018	2,749
2019	2,749
2020	148
2021	115
Thereafter	-

## **NOTE 8 – 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 2016, HRSD entered into a Credit Agreement in an aggregate principal amount of \$90 million to provide interim financing for its Capital Improvement Program. HRSD drew funds from the revolving line of credit totaling \$56.1 million, and repaid the interim financing with proceeds from its Series 2016A bond issue. After repayment, the Credit Agreement was extended to June 30, 2017 and the amount of the commitment was reduced to \$1 million.

HRSD issued \$246.8 million in subordinate wastewater revenue refunding bonds, Series 2016A, to provide funds to finance capital improvement projects and to advance refund \$145,785,000 of the HRSD Series 2008, 2011FR, and 2012A and all of Series 2011VR wastewater revenue bonds. The refunding provided a premium of \$42,244,000, resulted in a reduction of total debt service payments of \$29,350,000, created an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$21,178,000, and resulted in a deferred loss on the bond refunding of \$10,469,000, which is being amortized over 23 years.

HRSD also issued \$50 million in subordinate variable rate demand bonds, Series 2016B, to partially finance its capital improvement plan and refund \$25 million of the HRSD Series 2011 variable rate demand bonds. The bonds bear interest in either a Weekly Period or a Long-term Period. 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 below as if held to maturity. The bonds are subject to optional redemption by HRSD prior to their maturity. Through June 30, 2016, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2016 was 0.38%, and is used to calculate interest maturity amounts shown below.

In fiscal year 2016, VRA closed on \$78.8 million Clean Water State Revolving Fund Revenue Bond, Refunding Series 2016, which refunded a portion of the VRA's Clean Water State Revolving Fund Revenue Bond, Series 2010B. As a participant in three of the ten bonds involved in the refunding, HRSD recognized \$3.9 million in net present value savings and reduced the average cost of funds on those bonds from 2.93% to 2.05%. VRA will

reduce the interest rate paid by HRSD on the remaining payments on the bonds, which will provide the means for HRSD to recognize the savings.

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 is as follows:

(in thousands)	Balance at 6/30/14	Additions	Deductions	Balance at 6/30/15	Additions	Deductions	Balance at 6/30/2016	Due within One year
Series-2016A	\$ -	\$ -	\$ -	\$ -	\$ 246,845	\$ -	\$ 246,845	\$ 3,525
Series-2016B VR	-	-	-	-	50,000	-	50,000	50,000
Series-2014	-	111,345	-	111,345	-	-	111,345	-
Series-2012 A	128,275	-	(16,360)	111,915	-	(19,760)	92,155	2,480
Series-2012 Subordinate	15,100	-	(6,145)	8,955	-	(4,925)	4,030	2,825
Series-2011FR	42,450	-	(9,905)	32,545	-	(26,785)	5,760	1,360
Series-2011VR	25,000	-	-	25,000	-	(25,000)	-	-
Series-2009A	3,400	-	(3,400)	-	-	-	-	-
Series-2009B	134,725	-	-	134,725	-	(3,505)	131,220	3,590
Series-2008	211,170	-	(97,760)	113,410	-	(104,945)	8,465	3,000
Series-2003	9,105	-	(4,460)	4,645	-	(4,645)	-	-
Virginia Resources Authority								
Senior bonds	104,982	-	(4,562)	100,420	-	(4,749)	95,671	4,931
Subordinate bonds	69,750	-	(4,510)	65,240	-	(4,652)	60,588	4,766
	<u>743,957</u>	<u>111,345</u>	<u>(147,102)</u>	<u>708,200</u>	<u>296,845</u>	<u>(198,966)</u>	<u>806,079</u>	<u>76,477</u>
Unamortized bond premiums	22,396	24,300	(6,499)	40,197	42,244	(9,226)	73,215	5,944
Total Bonds Outstanding	<u>\$ 766,353</u>	<u>\$ 135,645</u>	<u>\$ (153,601)</u>	<u>\$ 748,397</u>	<u>\$ 339,089</u>	<u>\$ (208,192)</u>	<u>\$ 879,294</u>	<u>\$ 82,421</u>

A summary of the senior bonds outstanding at June 30, 2016 is as follows:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-Term				
Series-2014	\$ 111,345	\$ 111,345	\$ -	\$ 111,345	\$ 46,975	5.00%	15 years	July 1, 2029
Series-2012A	130,480	92,155	2,480	89,675	73,200	4.00 - 5.00%	30 years	January 1, 2044
Series-2011FR	45,705	5,760	1,360	4,400	465	3.00 - 4.00%	30 years	November 1, 2019
Series-2009B	134,725	131,220	3,590	127,630	104,117	3.98 - 5.86%	30 years	November 1, 2039
Series-2008	223,170	8,465	3,000	5,465	557	4.00%	30 years	April 1, 2018
VRA - Metering	9,989	8,210	452	7,758	1,793	2.65%	20 years	March 1, 2031
VRA - WTP	5,727	4,745	264	4,481	813	2.05%	20 years	March 1, 2031
VRA - NTP	19,395	15,900	876	15,024	3,472	2.65%	20 years	March 1, 2031
VRA - JRTP	13,431	10,892	625	10,267	2,298	2.65%	20 years	September 1, 2030
VRA - ABTP	50,000	43,951	2,112	41,839	8,281	2.05%	20 years	September 1, 2032
VRA - BHTP	7,584	6,307	331	5,976	1,116	2.05%	20 years	September 1, 2031
VRA - ATP	6,318	5,666	271	5,395	1,329	2.31%	20 years	February 1, 2033
Total		<u>\$ 444,616</u>	<u>\$ 15,361</u>	<u>\$ 429,255</u>	<u>\$ 244,416</u>			

Maturities of senior bond principal and interest as of June 30, 2016 are as follows:

(in thousands)		
June 30,	Principal	Interest
2017	\$ 15,361	\$ 19,827
2018	18,215	19,046
2019	18,658	18,237
2020	19,400	17,457
2021	18,586	16,673
2022-2026	110,737	69,839
2027-2031	109,790	45,603
2032-2036	64,929	26,307
2037-2041	53,355	10,164
2042-2046	15,585	1,263
	<u>\$ 444,616</u>	<u>\$ 244,416</u>

A summary of the subordinate revenue bonds outstanding at June 30, 2016 is as follows:

(in thousands)	Issue	Principal Outstanding			Interest	Interest	Duration	Final
	Amount	Total	Current	Long-term	to	Rates	of Issue	Maturity
Series-2016A	\$ 246,845	\$ 246,845	\$ 3,525	\$ 243,320	\$ 181,350	3.00%-5.00%	27 years	August 1, 2043
Series-2012 Sub	22,680	4,030	2,825	1,205	75	0.3% - 1.92%	8 years	October 1, 2020
Disinfection	6,490	1,711	406	1,305	137	3.50%	20 years	March 1, 2020
BH Odor	2,380	829	139	690	89	3.50%	20 years	September 1, 2021
York River Reuse	2,476	951	140	811	58	1.70%	20 years	September 1, 2022
AB Aeration	1,759	713	105	608	43	1.70%	20 years	October 1, 2022
Ches-Eliz Off Gas	1,070	451	58	393	66	3.75%	20 years	March 1, 2023
AB Generator	1,235	713	65	648	77	2.00%	20 years	April 1, 2026
Atlantic Expansion	7,340	4,619	378	4,241	578	2.10%	20 years	February 1, 2027
Ches-Eliz Expansion	40,330	25,246	2,062	23,184	3,160	2.10%	20 years	June 1, 2027
Williamsburg PS	1,605	1,046	81	965	137	2.10%	20 years	July 1, 2027
York River Expansion	29,683	24,309	1,332	22,977	5,458	2.72%	20 years	March 1, 2031
		311,463	11,116	300,347	191,228			
Series-2016B VR	50,000	50,000	-	50,000	4,931	Variable (0.384% at June 30, 2016)	30 years	August 1, 2046
Total		<u>\$ 361,463</u>	<u>\$ 11,116</u>	<u>\$ 350,347</u>	<u>\$ 196,159</u>			

Maturities of subordinate bond principal and interest as of June 30, 2016 are as follows:

(in thousands)		
June 30,	Principal	Interest
2017	\$ 11,116	\$ 11,468
2018	7,583	12,683
2019	7,827	12,437
2020	8,085	12,180
2021	9,235	11,882
2022-2026	43,230	54,617
2027-2031	62,482	44,953
2032-2036	99,460	25,784
2037-2041	66,210	8,261
2042-2046	37,980	1,894
2047	8,255	
	<u>\$ 361,463</u>	<u>\$ 196,159</u>

## NOTE 9 – NET POSITION

### Restricted Portions of Net Position

*Restricted for debt service and restricted for debt service reserve fund.* HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service and, if needed, for a debt service reserve fund.

### 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, 2016 and 2015, \$2,065,000 and \$570,000, respectively, was contained in the unrestricted net position. HRSD was in compliance with all funding requirements of this reserve during the fiscal years ended June 30, 2016 and 2015.

*Reserved for Construction.* A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2016 and 2015, \$12,525,000 and \$2,287,000, respectively, was contained in the unrestricted net position.

## NOTE 10 - 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 2014 through 2016 are as follows:

(in thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2014	\$ 2,599	\$ 10,186	\$ (9,914)	\$ 2,871
2015	\$ 2,871	\$ 11,807	\$ (10,362)	\$ 4,316
2016	\$ 4,316	\$ 10,326	\$ (10,646)	\$ 3,996

## NOTE 11 – 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 13 of the localities which HRSD serves in the Hampton Roads area. Based upon that evaluation, HRSD, in consultation with the localities, is required to develop a Regional Wet Weather Management Plan (RWWMP) for submittal to the federal and state environmental agencies for their approval. The recommended plan will include an implementation schedule. The RWWMP will identify the attainable level of wet weather capacity in individual areas of the region and/or on a region-wide basis. The RWWMP will also summarize the major projects and programs that must be implemented in order to achieve the specified level of regional wet weather capacity. It is likely that the RWWMP will call for several hundred million dollars in infrastructure investments across the Hampton Roads region over several decades.

In conjunction with the RWWMP, HRSD will be submitting an Integrated Plan. The Integrated Plan will 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) initiative, which will allow HRSD to reduce nitrogen, phosphorus and total suspended solids. This program will take approximately 10 years to implement. During this time HRSD will be implementing priority projects from the RWWMP. When the SWIFT program is complete the majority of the RWWMP projects will be implemented.

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.

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. While HRSD is preparing the RWWMP, the Consent Decree also requires HRSD to implement approximately \$200 million in priority capital system upgrade projects over a nine year period, which are included in the capital improvement and expansion program noted below. Management currently believes that HRSD is on schedule to complete these projects.

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. At June 30, 2016 HRSD has outstanding commitments for contracts in progress of approximately \$161,093,000.

## NOTE 12 – CHANGE IN ACCOUNTING PRINCIPLE

During the prior fiscal year ended June 30, 2015, HRSD adopted GASB Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date - an amendment of GASB Statement No. 68*, effective July 1, 2014. HRSD implemented the provisions of GASB Statements No. 68 and No. 71 in fiscal year 2015 by adjusting the July 1, 2014 net position, establishing a pension liability, recording deferred inflows and outflows of resources related to pension activity, and adjusting pension expenses in the accompanying financial statements. The following reflects the adjustment to net position as of July 1, 2014 as a result of implementing GASB Statements No. 68 and No. 71 in fiscal year 2015:

(in thousands)

Net position as of July 1, 2014, as adjusted	\$ 554,947
Adjustment for net pension liability	(40,184)
Adjustment for pension contributions made in FY2014	4,113
Net position at July 1, 2014, adjusted	<u><u>\$ 518,876</u></u>

## NOTE 13 – FAIR VALUE MEASUREMENTS

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

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

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

Investments reported as cash and cash equivalents are not included of the fair value hierarchy and are valued using the following approaches:

- SNAP Fund – money market mutual funds. HRSD's holdings of the PFM Prime Series (SNAP) fund units are valued at NAV, which is used as a practical expedient for fair value. There are no imposed redemption restrictions and the plan does not have any contractual obligations to further invest in the fund. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value.



- Local Government Investment Pool (LGIP) – HRSD holdings of the Virginia LGIP fund units are valued at amortized cost based on their qualification under GASB 79 as being managed as a “2a-7 like” investment. The fund does not have any limitations or restrictions on withdrawals such as redemption notice periods, maximum transaction amounts, or liquidity fees or redemption gates. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value.

**Balance at June 30, 2016 (in thousands)**

**Investments by Fair Value Level**

	<b>Fair Value</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasury Securities	\$ 57,220	\$ -	\$ 57,220	\$ -
Federal Agency Notes / Bonds	23,471	-	23,471	-
Corporate Notes / Bonds	19,815	-	19,815	-
Commercial Paper	9,752	-	9,752	-
Certificates of Deposit	9,704	-	9,704	-
Supranationals	3,591	-	3,591	-
Total Investments by Fair Value Level	<u>123,553</u>	<u>\$ -</u>	<u>\$ 123,553</u>	<u>\$ -</u>

**Cash and Cash Equivalents Measured at Net Asset Value**

Fidelity	\$ 96
SNAP	<u>67,761</u>
Total Cash & Cash Equivalents measured at Net Asset Value	<u>67,857</u>

**Cash and Cash Equivalents Measured at Amortized Cost**

VA Local Government Investment Pool	<u>44,120</u>
Total Investments included in Cash & Cash Equivalents	<u>\$ 111,977</u>

**Balance at June 30, 2015 (in thousands)**

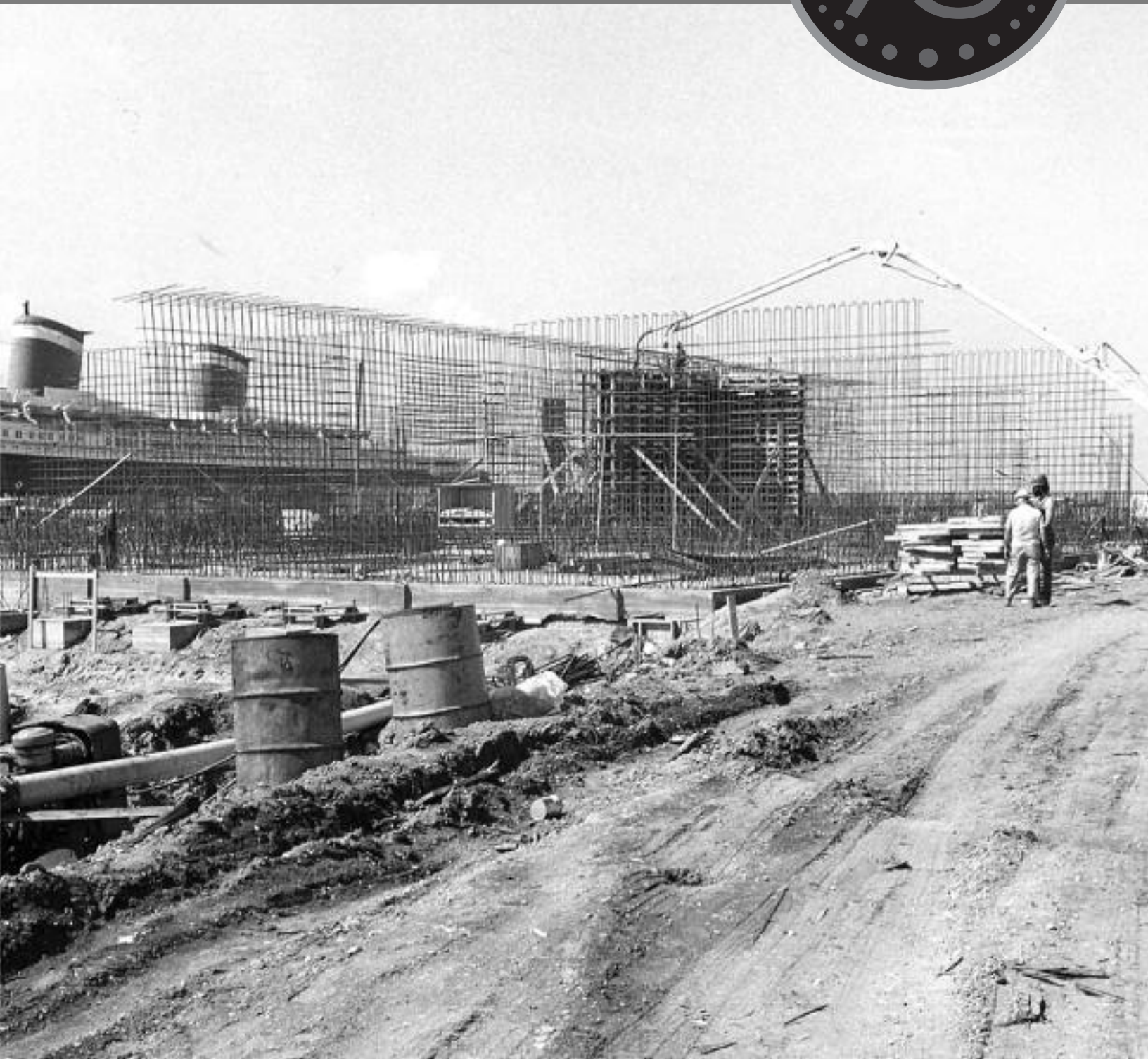
**Investments by Fair Value Level**

	<b>Fair Value</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasury Securities	\$ 62,656	\$ -	\$ 62,656	\$ -
Federal Agency Notes / Bonds	26,702	-	26,702	-
Corporate Notes / Bonds	15,281	-	15,281	-
Commercial Paper	2,446	-	2,446	-
Certificates of Deposit	11,651	-	11,651	-
Supranationals	1,128	-	1,128	-
Municipal bonds	1,711	-	1,711	-
Total Investments by Fair Value Level	<u>\$ 121,575</u>	<u>\$ -</u>	<u>\$ 121,575</u>	<u>\$ -</u>

**Cash and Cash Equivalents Measured at Net Asset Value**

Fidelity	\$ 277
SNAP	<u>20,264</u>
Total Investments measured at Net Asset Value	<u>\$ 20,541</u>

# Required Supplementary Information (Unaudited)



**HAMPTON ROADS SANITATION DISTRICT**  
**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
**June 30, 2016**

	(in thousands)	2015	2014
<b>Total pension liability</b>			
Service cost		\$ 4,115	\$ 3,943
Interest		13,559	12,907
Differences between expected and actual experience		(4,910)	-
Benefit payments, including refunds of employee contributions		(8,446)	(6,607)
<b>Net change in total pension liability</b>		4,318	10,243
<b>Total pension liability - beginning</b>		197,928	187,686
<b>Total pension liability - ending (a)</b>		<u>\$ 202,246</u>	<u>\$ 197,929</u>
<b>Plan fiduciary net position</b>			
Contributions - employer		\$ 4,099	\$ 4,114
Contributions - employee		2,314	2,267
Net investment income		7,807	23,313
Benefit payments, including refunds of employee contributions		(8,446)	(6,607)
Administrative expense		(107)	(125)
Other		(2)	1
<b>Net change in plan fiduciary net position</b>		5,665	22,963
<b>Plan fiduciary net position - beginning</b>		170,464	147,501
<b>Plan fiduciary net position - ending (b)</b>		<u>\$ 176,129</u>	<u>\$ 170,464</u>
<b>Net pension liability - ending (a) - (b)</b>		\$ 26,117	\$ 27,465
<b>Plan fiduciary net position as a percentage of the total pension liability (b)/(a)</b>		87.09%	86.12%
<b>Covered-employee payroll ( c )</b>		\$ 47,838	\$ 47,674
<b>Net pension liability as a percentage of the covered-employee payroll ((a)-(b))/( c )</b>		54.59%	57.61%

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

**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF EMPLOYER CONTRIBUTIONS  
FOR THE YEARS ENDED JUNE 30, 2007 THROUGH 2016**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2016	\$ 4,222,000	\$ 4,222,000	-	\$ 47,838,000	8.83%
2015	4,207,000	4,207,000	-	47,674,000	8.82%
2014	4,107,000	4,107,000	-	46,096,000	8.91%
2013	4,075,000	4,075,000	-	45,044,000	9.05%
2012	4,580,000	4,580,000	-	42,166,000	10.86%
2011	4,438,000	4,438,000	-	40,462,000	10.97%
2010	3,900,000	3,900,000	-	39,407,000	9.90%
2009	3,699,000	3,699,000	-	37,608,000	9.84%
2008	4,363,000	4,363,000	-	34,050,000	12.81%
2007	4,429,000	4,429,000	-	33,308,000	13.30%

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)**

**June 30, 2016**

**Changes of benefit terms** - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this was a new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2015 are not material.

**Changes of assumptions** - The following changes in actuarial assumptions were made effective June 30, 2013 based on the most recent experience study of the retirement system for the four-year period ending June 30, 2012:

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

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

**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF FUNDING PROGRESS  
OTHER POST-RETIREMENT HEALTH BENEFITS**

The table below provides detail on the funding progress for the Post-Retirement Health Benefit Plan for HRSD

Valuation as of	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (2) - (1)	Funded Ratio Assets as % of AAL (1) / (2)	Annual Covered Payroll	UAAL as a % of Covered Payroll (3) / (5)
(in thousands)	(1)	(2)	(3)	(4)	(5)	(6)
6/30/2016	\$39,272	\$45,337	\$6,065	86.6%	\$47,838	12.7%
6/30/2015	\$37,008	\$42,017	\$5,009	88.1%	\$47,674	10.5%
6/30/2014	\$34,115	\$39,422	\$5,307	86.5%	\$46,096	11.5%
6/30/2013	\$28,030	\$35,552	\$7,522	78.8%	\$45,032	16.7%
6/30/2012	\$24,515	\$32,577	\$8,062	75.3%	\$43,213	18.7%

Unaudited – See accompanying independent auditors' report

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# Statistical Section (Unaudited)



## HAMPTON ROADS SANITATION DISTRICT STATISTICAL SECTION (UNAUDITED)

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This section of Hampton Roads Sanitation District'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.

<b>Contents</b>	<b>Page</b>
<b>Demographic and Economic Information</b>	
This schedule offers demographic and economic indicators to help the reader understand the environment within which HRSD's financial activities take place and to help make comparisons over time and with other governments.	47
<b>Financial Trends</b>	
These schedules contain trend information to help the reader understand how HRSD's financial performance and well-being have changed over time.	48-50
<b>Debt Capacity</b>	
This schedule presents information to help the reader assess the affordability of HRSD's current levels of outstanding debt and HRSD's ability to issue additional debt in the future.	51
<b>Revenue Capacity</b>	
These schedules contain information to help the reader assess the factors affecting HRSD's ability to generate revenue from rate payers.	52-53 56-58
<b>Operating Information</b>	
These schedules contain information about the HRSD's operations and resources to help the reader understand how the HRSD's financial information relates to the services HRSD provides and the activities it performs.	54-55 59

Unaudited – See accompanying independent auditors' report

**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, 2016**

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>
Date of Incorporation - 1940										
Area in Square Miles										
Present Service Area in Square Miles	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808
	672	672	672	672	672	672	672	672	672	672
	9	9	9	9	9	9	9	9	9	9
Treatment Plants (Major)										
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	36.0	36.0	36.0
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	230.5	230.5	230.5
Small Communities Treatment Plants	4	4	4	4	5	5	4	4	4	3
Central Middlesex, Middlesex County	0.025	0.025	0.03	0.03	0.03	0.03	-	-	-	-
King William Plant, King William County	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Mathews Plant, Mathews County (1)	-	-	-	-	0.10	0.10	0.10	0.10	0.10	0.10
Urbanna Plant, Middlesex County	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
West Point Plant, King William County	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Total Small Communities Treatment Plants Capacity	0.825	0.825	0.83	0.83	0.93	0.93	0.90	0.90	0.90	0.80
Miles of Interceptor Systems (2)	536	532	531	531	532	528	483	483	514	512
Interceptor Pump Stations	88	83	83	83	83	82	81	82	82	81
Small Communities Pump Stations (2)	33	33	33	29	29	29	25	20	20	20
Maintenance Facilities	2	2	2	2	2	2	2	2	2	2
Number of Service Connections (in thousands; 3)	467	465	462	460	458	457	455	452	442	461
Daily Average Treatment in Millions of Gallons	155	152	154	158	147	144	171	151	146	163
Bond Ratings										
Moody's Investors Service Senior	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa3	Aa3	Aa3
Standard & Poor's Senior	AA+	AA+	AAA	AAA	AAA	AAA	AAA	AA+	AA+	AA
Subordinate Long-term	AA	AA	AA+	AA+	AA+	-	-	-	-	-
Subordinate Short-term	A-1+	A-1+	A-1+	A-1+	A-1+	-	-	-	-	-
Senior	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA	AA	-
Subordinate Long-term	AA	AA	AA	AA	AA	-	-	-	-	-
Subordinate Short-term	F1+	F1+	F1+	F1+	F1+	-	-	-	-	-

- 1 - The Mathews Treatment Plant has been closed. Wastewater from the area is now handled by the York River Treatment Plant.
- 2 - 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.
- 3 - HRSD installed a new customer billing system during the year ended June 30, 2008. As part of the implementation, certain accounts were combined to more closely align billir locations and service delivery, resulting in fewer total accounts.

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

(in thousands)	2016	2015	(adjusted) 2014	(adjusted) 2013	(adjusted) 2012
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	\$ 234,020	\$ 221,626	\$ 211,538	\$ 199,318	\$ 194,817
Miscellaneous	3,861	3,935	3,643	3,297	2,996
<b>TOTAL OPERATING REVENUES</b>	<b>237,881</b>	<b>225,561</b>	<b>215,181</b>	<b>202,615</b>	<b>197,813</b>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	106,575	114,137	109,149	86,973	110,783
General and administrative	40,026	38,678	33,012	31,410	31,163
Depreciation	45,670	41,871	42,761	45,414	41,250
<b>TOTAL OPERATING EXPENSES</b>	<b>192,271</b>	<b>194,686</b>	<b>184,922</b>	<b>163,797</b>	<b>183,196</b>
<b>OPERATING INCOME</b>	<b>45,610</b>	<b>30,875</b>	<b>30,259</b>	<b>38,818</b>	<b>14,617</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	6,699	7,428	6,640	5,851	6,276
Investment income	1,563	1,695	1,872	1,705	1,681
Bond interest subsidy	2,399	2,444	2,364	2,602	2,602
Capital distributions to localities	(3,287)	-	-	-	-
Change in fair value of investments	750	(286)	(422)	(714)	(224)
Bond issuance costs	(1,713)	(768)	-	(658)	(2,206)
Disposal of capital assets	-	-	-	(1,649)	-
Interest expense	(21,631)	(22,958)	(25,650)	(24,330)	(22,760)
<b>NET NON-OPERATING EXPENSES</b>	<b>(15,220)</b>	<b>(12,445)</b>	<b>(15,196)</b>	<b>(17,193)</b>	<b>(14,631)</b>
<b>INCOME (LOSS) BEFORE CONTRIBUTIONS</b>	<b>30,390</b>	<b>18,430</b>	<b>15,063</b>	<b>21,625</b>	<b>(14)</b>
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	14,389	16,519	13,888	10,172	14,806
Other capital contributions	-	3,000	-	-	-
<b>CHANGE IN NET POSITION</b>	<b>\$ 44,779</b>	<b>\$ 37,949</b>	<b>\$ 28,951</b>	<b>\$ 31,797</b>	<b>\$ 14,792</b>
<b>NET POSITION</b>					
Net Investment in capital assets	\$ 410,287	\$ 385,597	\$ 351,191	\$ 337,342	\$ 348,407
Restricted for debt service	23,798	22,070	24,064	23,843	15,736
Restricted for debt service reserve fund	-	44,118	45,207	-	-
Unrestricted	167,519	105,040	134,485	164,811	130,056
<b>TOTAL NET POSITION</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 554,947</b>	<b>\$ 525,996</b>	<b>\$ 494,199</b>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	\$ 38,198	\$ 43,842	\$ 47,331	\$ 37,574	\$ 33,023
Subordinate debt	\$ 17,068	\$ 13,091	\$ 14,112	\$ 11,243	\$ 13,694
Senior Debt Service Coverage (GAAP)	2.56	1.90	1.76	2.48	1.94
Subordinate Debt Service Coverage (GAAP)	5.72	6.36	5.92	8.27	4.67
Total Debt Service Coverage (GAAP)	1.77	1.46	1.36	1.91	1.37
Total Debt (Adjusted Cash Basis)	\$ 54,643	-	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	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 liability.

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.

(Continued)

Unaudited – See accompanying independent auditors' report

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

(in thousands)	2011	2010	2009	2008	2007
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	\$ 183,526	\$ 167,807	\$ 156,642	\$ 129,583	\$ 118,423
Miscellaneous	3,890	3,645	3,088	2,623	3,558
<b>TOTAL OPERATING REVENUES</b>	<u>187,416</u>	<u>171,452</u>	<u>159,730</u>	<u>132,206</u>	<u>121,981</u>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	103,225	98,022	86,850	72,034	68,930
General and administrative	28,622	29,435	28,853	31,756	26,070
Depreciation	36,191	30,441	28,414	27,282	24,958
<b>TOTAL OPERATING EXPENSES</b>	<u>168,038</u>	<u>157,898</u>	<u>144,117</u>	<u>131,072</u>	<u>119,958</u>
<b>OPERATING INCOME</b>	19,378	13,554	15,613	1,134	2,023
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	5,083	5,754	5,086	8,339	9,645
Investment income	1,699	1,541	3,998	3,999	3,363
Bond interest subsidy	2,602	1,655	-	-	-
Capital distributions to localities	-	-	-	-	-
Change in fair value of investments	(19)	40	162	656	994
Bond issuance costs	-	-	-	-	-
Disposal of capital assets	-	-	-	-	-
Interest expense	(20,516)	(19,973)	(15,263)	(5,867)	(4,630)
<b>NET NON-OPERATING REVENUES (EXPENSES)</b>	<u>(11,151)</u>	<u>(10,983)</u>	<u>(6,017)</u>	<u>7,127</u>	<u>9,372</u>
<b>INCOME BEFORE CONTRIBUTIONS</b>	8,227	2,571	9,596	8,261	11,395
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	16,097	41,606	16,678	-	-
Other capital contributions	-	-	-	-	-
<b>CHANGE IN NET POSITION</b>	<u>\$ 24,324</u>	<u>\$ 44,177</u>	<u>\$ 26,274</u>	<u>\$ 8,261</u>	<u>\$ 11,395</u>
<b>NET POSITION</b>					
Net Investment in capital assets	\$ 351,618	\$ 348,572	\$ 319,594	\$ 301,760	\$ 314,708
Restricted for debt service	14,896	12,253	7,542	7,377	6,247
Restricted for debt service reserve fund	-	-	-	-	-
Unrestricted	110,688	92,053	81,565	73,290	53,211
<b>TOTAL NET POSITION</b>	<u>\$ 477,202</u>	<u>\$ 452,878</u>	<u>\$ 408,701</u>	<u>\$ 382,427</u>	<u>\$ 374,166</u>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	\$ 28,257	\$ 21,081	\$ 17,453	\$ 4,699	\$ 8,609
Subordinate debt	\$ 10,640	\$ 10,695	\$ 10,694	\$ 11,992	\$ 8,000
Senior Debt Service Coverage (GAAP)	2.30	2.51	3.05	8.81	4.76
Subordinate Debt Service Coverage (GAAP)	6.10	4.95	4.98	3.45	5.12
Total Debt Service Coverage (GAAP)	1.67	1.67	1.89	2.48	2.47
Total Debt (Adjusted Cash Basis)	-	-	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	-	-	-	-	-

**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 liability.

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.

Unaudited – See accompanying independent auditors' report

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

(in thousands)	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Personal Services	\$ 51,801	\$ 52,357	\$ 50,538	\$ 49,361	\$ 47,319	\$ 44,284	\$ 42,529	\$ 40,840	\$ 37,333	\$ 36,228
Fringe Benefits	17,974	18,249	20,170	20,039	17,800	17,692	15,217	12,410	12,573	11,106
Repairs and Maintenance (1)	22,824	31,451	22,320	23,075	26,057	21,234	23,445	14,176	10,704	11,101
Materials and Supplies	7,843	4,343	5,764	5,700	6,143	8,381	6,284	5,715	5,965	5,224
Transportation	1,537	1,297	1,417	1,376	1,319	1,196	1,009	972	965	802
Utilities	11,249	10,503	11,126	12,295	12,027	11,026	10,755	13,218	11,601	10,457
Chemicals	7,512	7,119	7,752	7,892	8,587	8,084	7,571	8,342	8,032	7,077
Contractual Services	21,573	15,127	14,222	13,993	12,312	11,118	10,333	8,642	9,064	7,828
Miscellaneous	1,842	2,880	1,274	1,172	1,324	1,148	1,049	1,028	897	720
General (2)	2,446	9,489	7,578	6,487	6,852	7,684	9,265	10,360	6,656	4,457
Subtotal, Expense before Depreciation	146,601	152,815	142,161	141,390	139,740	131,847	127,457	115,703	103,790	95,000
Depreciation	45,670	41,871	42,761	45,414	41,250	36,191	30,441	28,414	27,282	24,958
Total Operating Expenses	\$ 192,271	\$ 194,686	\$ 184,922	\$ 186,804	\$ 180,990	\$ 168,038	\$ 157,898	\$ 144,117	\$ 131,072	\$ 119,958

(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, 2015**

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As of June 30,	No. Of Service Connections	(in thousands)			Debt Per Service Connection
		Senior Revenue Bonds	Subordinate Revenue Bonds	Total Outstanding Debt	
2016	467,000	\$ 476,734	\$ 402,560	\$ 879,294	\$ 1,883
2015	465,000	649,202	99,195	748,397	1,609
2014	462,000	656,503	109,850	766,353	1,659
2013	460,000	670,272	120,231	790,503	1,718
2012	458,000	510,951	128,335	639,286	1,396
2011	457,000	450,335	110,661	560,996	1,228
2010	455,000	395,215	152,103	547,318	1,203
2009	452,000	250,165	109,971	360,136	797
2008	442,000	255,635	104,269	359,904	814
2007	461,000	35,855	107,803	143,658	312

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

During the year ended June 30, 2008, HRSD installed a new customer billing system. As part of the implementation certain accounts were combined to more closely align billing locations and service delivery, resulting in fewer total accounts.

Unaudited – See accompanying independent auditors' report

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

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<u>Residential - Metered</u>										
Per CCF * (single step)	\$ 4.13	\$ 3.83	\$ 3.55	\$ 3.29	\$ 3.05	\$ 2.82	\$ 2.52	-	-	-
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	\$ 2.28	\$ 1.98	\$ 1.72
In excess of 30 CCF* per 30-day period	-	-	-	-	-	-	-	2.06	1.79	1.55
Minimum Charges										
Per day	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-	-	-
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	6.50	5.65	4.91
<u>Residential - Unmetered per 30-day period</u>										
Flat rate accounts	26.32	26.32	26.32	26.32	24.40	22.56	20.16	-	-	-
First toilet	-	-	-	-	-	-	-	10.25	8.91	7.74
Second toilet	-	-	-	-	-	-	-	6.83	5.94	5.16
Additional, each	-	-	-	-	-	-	-	3.42	2.97	2.58
<u>Non-Residential - Special Category</u>										
Biochemical Oxygen Demand (BOD)										
Excess over 250 mg/liter										
Per mg/liter per CCF	0.000485	0.000612	0.001558	0.002451	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	46.77	39.71	35.39	31.95	27.71	24.05
Total suspended solids (TSS)										
Excess over 250 mg/liter										
Per mg/liter per CCF	0.000448	0.000417	0.001244	0.001865	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	36.70	34.73	30.25	28.54	24.82	22.51
Total phosphorus (TP)										
Excess over 6 mg/liter										
Per mg/liter per CCF	0.004361	0.004344	0.011714	0.012790	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	300.57	300.57	293.41	283.10	252.52	239.83
Total Kjeldahl Nitrogen (TKN)										
Excess over 35 mg/liter										
Per mg/liter per CCF	0.000917	0.000756	0.001752	0.002085	-	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	74.51	63.39	61.88	59.73	53.96	28.54
Unusual wastes not covered by this schedule may be assigned a special rate.										
<u>Septic Tank Waste</u>										
Per gallon	0.1362	0.1267	0.1258	0.1146	-	-	-	-	-	-
Per each 500 gallons or part thereof	-	-	-	-	48.57	44.46	38.51	35.84	31.21	28.05

\*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**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Residential	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655	\$ 1,607	\$ 1,540
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655	\$ 1,607	\$ 1,540
3/4" Meter	4,830	4,830	4,830	4,510	2,885	2,605	2,605	2,515	2,443	2,340
1" Meter	8,170	8,170	8,170	7,630	5,370	4,850	4,850	4,685	4,548	4,350
1 1/2" Meter	17,260	17,260	17,260	16,130	13,035	11,780	11,780	11,365	11,040	10,565
2" Meter	29,420	29,420	29,420	27,490	24,420	22,065	22,065	21,290	20,681	19,785
3" Meter	67,350	63,600	62,270	58,180	59,140	53,440	53,440	51,565	50,088	47,920
4" Meter	122,400	115,580	106,060	99,110	110,860	100,175	100,175	96,660	93,892	89,830
6" Meter	284,070	268,250	224,650	209,920	268,675	242,780	242,780	234,260	227,556	217,710
8" Meter	516,260	487,510	382,670	357,580	503,350	454,835	454,835	438,875	426,315	407,870
10" Meter	820,560	774,860	587,820	540,610	819,310	740,340	740,340	714,355	693,915	663,890
12" Meter	1,198,210	1,131,490	-	-	-	-	-	-	-	-
14" Meter	1,650,250	1,558,360	-	-	-	-	-	-	-	-
16" Meter	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	-	-	-	-	-	-

HRSD eliminated strength based facility charges effective 7/1/2015.

Note: One charge per connection.

Unaudited – See accompanying independent auditors' report



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

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b><u>District Total</u></b>										
Flow (MGD)	155.1	152.2	154.0	157.9	147.1	144.4	170.9	151.4	146.3	163.3
Influent (1,000 lbs.)										
BOD	282.5	286.0	288.6	274.4	254.6	273.1	275.2	300.9	332.1	346.3
TSS	228.8	198.6	204.7	198.1	200.3	205.9	210.7	203.6	211.3	224.0
TP	6.9	8.6	6.8	6.6	6.7	7.0	7.4	7.8	6.7	7.2
TKN	45.7	45.8	47.9	48.9	48.3	49.8	48.2	49.0	51.4	-
Effluent (1,000 lbs.)										
BOD	9.8	9.9	9.6	9.3	7.5	9.3	11.5	8.7	9.2	10.9
TSS	9.3	8.9	9.1	9.3	10.5	9.2	13.1	10.5	10.8	11.5
TP	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0	1.1	1.1
TKN	8.0	9.8	11.2	12.0	10.1	12.3	14.9	13.3	11.2	-
<b>Army Base Plant</b>										
Flow (MGD)	9.6	9.9	10.7	11.8	10.2	10.0	12.6	10.4	9.7	11.3
Influent (1,000 lbs.)										
BOD	13.3	16.4	19.0	18.5	17.4	16.9	17.0	18.1	18.9	19.5
TSS	13.3	12.5	14.2	14.4	13.7	12.9	13.5	12.9	13.0	13.8
TP	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
TKN	2.7	2.9	3.5	3.7	3.5	3.2	3.2	3.1	3.4	-
Effluent (1,000 lbs.)										
BOD	0.3	0.8	0.8	0.8	0.9	0.8	1.0	0.8	1.0	0.9
TSS	0.5	0.6	0.8	0.9	0.8	1.0	1.1	0.8	1.1	0.9
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	2.1	2.6	2.8	2.5	2.3	2.3	2.3	2.4	-
<b>Atlantic Plant</b>										
Flow (MGD)	27.2	30.9	25.7	26.7	29.0	29.7	30.4	26.6	26.3	29.4
Influent (1,000 lbs.)										
BOD	55.6	66.6	52.7	51.3	56.0	58.6	55.1	52.0	55.7	58.2
TSS	38.5	42.9	37.3	36.4	43.8	46.9	43.3	40.2	41.7	46.3
TP	1.4	1.5	1.3	1.3	1.5	1.8	1.8	1.9	-	-
TKN	10.9	11.4	10.4	10.5	11.7	12.3	11.3	10.5	10.7	-
Effluent (1,000 lbs.)										
BOD	2.7	3.0	2.2	2.6	2.0	3.0	2.3	1.8	1.9	2.0
TSS	1.9	2.4	2.0	1.9	1.8	2.0	2.9	2.2	2.0	2.1
<b>Boat Harbor Plant</b>										
Flow (MGD)	15.6	14.4	14.9	15.5	13.6	12.6	16.7	13.0	11.6	14.6
Influent (1,000 lbs.)										
BOD	18.3	20.0	19.2	19.3	19.9	19.4	19.9	19.9	19.6	21.4
TSS	18.1	16.3	16.7	16.0	16.9	15.6	17.5	15.2	14.6	17.3
TP	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
TKN	3.8	3.6	3.7	3.7	3.7	3.8	3.7	3.6	3.6	-
Effluent (1,000 lbs.)										
BOD	1.0	0.7	0.7	0.7	0.6	0.6	1.1	0.6	0.9	1.5
TSS	0.9	0.6	0.8	0.8	0.9	0.7	1.3	0.7	0.7	1.2
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	1.8	2.2	2.4	2.9	3.0	2.8	2.8	2.6	2.3	-
<b>Chesapeake-Elizabeth Plant</b>										
Flow (MGD)	18.0	16.3	19.1	18.4	15.2	16.3	20.1	19.5	18.7	15.6
Influent (1,000 lbs.)										
BOD	35.2	30.2	38.7	32.1	24.8	30.1	32.7	36.0	38.3	30.8
TSS	26.1	22.9	26.6	25.1	21.0	22.6	26.9	27.1	27.5	21.5
TP	0.8	2.7	0.8	0.8	0.7	0.7	0.8	0.9	1.0	0.7
TKN	6.4	5.1	6.7	6.4	5.4	6.1	6.2	6.9	7.2	-
Effluent (1,000 lbs.)										
BOD	2.3	2.0	2.5	2.2	1.5	1.8	2.2	2.1	2.0	1.9
TSS	2.3	1.8	1.9	2.1	1.8	1.9	2.2	2.2	2.1	1.7
TP	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
TKN	4.1	3.6	4.5	4.2	3.2	3.9	3.9	4.2	3.8	-

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

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>James River Plant</b>										
Flow (MGD)	13.2	12.7	13.6	14.3	12.9	12.2	14.9	12.3	12.7	15.1
Influent (1,000 lbs.)										
BOD	24.4	25.7	27.5	25.5	25.3	26.2	24.7	23.0	25.4	30.8
TSS	17.8	18.0	19.4	19.2	19.0	19.8	19.9	17.6	19.6	21.1
TP	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
TKN	4.2	4.0	4.2	4.4	4.4	4.4	4.3	4.2	4.2	-
Effluent (1,000 lbs.)										
BOD	0.4	0.3	0.5	0.7	0.7	0.9	1.2	0.8	1.1	1.2
TSS	0.5	0.4	0.6	0.8	0.8	0.9	1.8	1.4	1.5	1.4
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
TKN	0.4	0.4	0.2	0.6	0.5	2.3	2.6	1.2	1.0	-
<b>Nansemond Plant</b>										
Flow (MGD)	18.5	16.6	16.9	17.1	16.2	15.9	18.0	17.1	17.2	18.7
Influent (1,000 lbs.)										
BOD	35.8	28.5	29.0	27.0	23.7	27.9	30.2	31.6	32.3	36.7
TSS	38.4	21.9	23.1	22.9	22.6	22.6	24.5	23.1	24.5	27.1
TP	1.5	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.3	1.7
TKN	7.0	5.6	5.8	5.9	6.0	6.1	6.0	6.2	6.4	-
Effluent (1,000 lbs.)										
BOD	0.7	0.8	0.9	0.6	0.6	0.8	1.2	0.7	0.6	0.8
TSS	0.9	0.9	1.1	0.8	0.9	1.1	1.3	1.0	1.4	1.5
TP	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
TKN	0.5	0.6	0.5	0.3	0.3	0.5	2.3	1.3	0.3	-
<b>Virginia Initiative Plant</b>										
Flow (MGD)	31.7	30.5	30.7	31.9	29.8	28.5	35.7	29.9	25.4	31.2
Influent (1,000 lbs.)										
BOD	50.4	47.5	45.8	45.8	42.3	42.8	43.0	46.9	47.2	50.3
TSS	32.0	30.2	30.6	31.6	32.3	31.8	31.7	31.1	27.3	31.6
TP	1.0	1.1	1.2	1.1	1.1	1.1	1.2	1.3	1.4	1.5
TKN	7.4	7.1	7.4	7.5	7.6	7.3	7.2	7.5	7.1	-
Effluent (1,000 lbs.)										
BOD	1.7	1.9	1.4	0.9	0.8	0.7	1.7	1.3	1.2	1.8
TSS	1.9	1.6	1.7	1.4	1.5	1.1	1.7	1.5	1.2	1.7
TP	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1
TKN	0.7	0.8	0.6	0.5	0.5	0.4	0.8	1.5	1.1	-
<b>Williamsburg Plant</b>										
Flow (MGD)	8.6	8.4	9.2	8.9	9.1	8.6	10.0	12.0	14.4	15.1
Influent (1,000 lbs.)										
BOD	33.2	34.7	40.4	37.7	33.5	37.5	37.9	59.9	79.0	80.8
TSS	27.9	16.2	19.9	16.8	16.7	19.0	19.6	23.4	30.6	28.8
TP	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.8	1.0	1.0
TKN	3.6	3.2	3.3	3.3	3.4	3.5	3.5	4.3	5.2	-
Effluent (1,000 lbs.)										
BOD	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4
TSS	0.3	0.3	0.3	0.4	0.6	0.3	0.4	0.3	0.5	0.5
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2	-
<b>York River Plant</b>										
Flow (MGD)	12.7	12.6	13.2	13.3	11.2	10.8	12.5	10.7	10.2	12.3
Influent (1,000 lbs.)										
BOD	16.3	18.2	17.9	17.2	13.3	15.5	16.3	15.5	15.8	17.8
TSS	16.7	16.9	16.4	15.7	14.1	14.3	14.0	12.6	12.4	16.5
TP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
TKN	3.5	3.5	3.6	3.5	3.2	3.6	3.3	3.3	3.7	-
Effluent (1,000 lbs.)										
BOD	0.4	0.4	0.4	0.5	0.2	0.5	0.4	0.4	0.3	0.4
TSS	0.1	0.2	0.1	0.2	0.1	0.3	0.5	0.5	0.4	0.5
TP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.3	0.3	0.4	0.1	0.1	0.2	0.3	0.1	-

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	2016		2007	
		Amount	Percent	Amount	Percent
U.S. Navy - Norfolk Naval Base	Military Facility	\$ 4,383	1.9%	\$ 1,275	1.1%
Smithfield Foods	Meat Processor	4,067	1.7%	2,226	1.9%
Anheuser - Busch, Inc.	Brewery	2,961	1.3%	6,102	5.2%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	1,970	0.8%	615	0.5%
Norfolk Naval Shipyard	Military Ship Repair	1,859	0.8%	-	-
Joint Expeditionary Base Little Creek - Fort Story (formerly U.S. Navy - Little Creek Amphibious Base)	Military Facility	1,457	0.6%	882	0.7%
Norfolk Redevelopment & Housing Authority	Housing Authority	1,439	0.6%	641	0.5%
City of Norfolk	Municipality	1,353	0.6%	1,100	0.9%
Fort Eustis	Military Facility	1,200	0.5%		
Oceana Naval Air Station	Military Facility	1,067	0.5%	387	0.3%
U.S. Air Force - Langley	Military Facility	-	-	822	0.7%
Marva Maid Dairy	Manufacturer - Dairy Products	-	-	404	0.3%
Total		<u>\$ 21,756</u>	<u>9.3%</u>	<u>\$ 14,454</u>	<u>12.1%</u>

Unaudited – See accompanying independent auditors' report

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

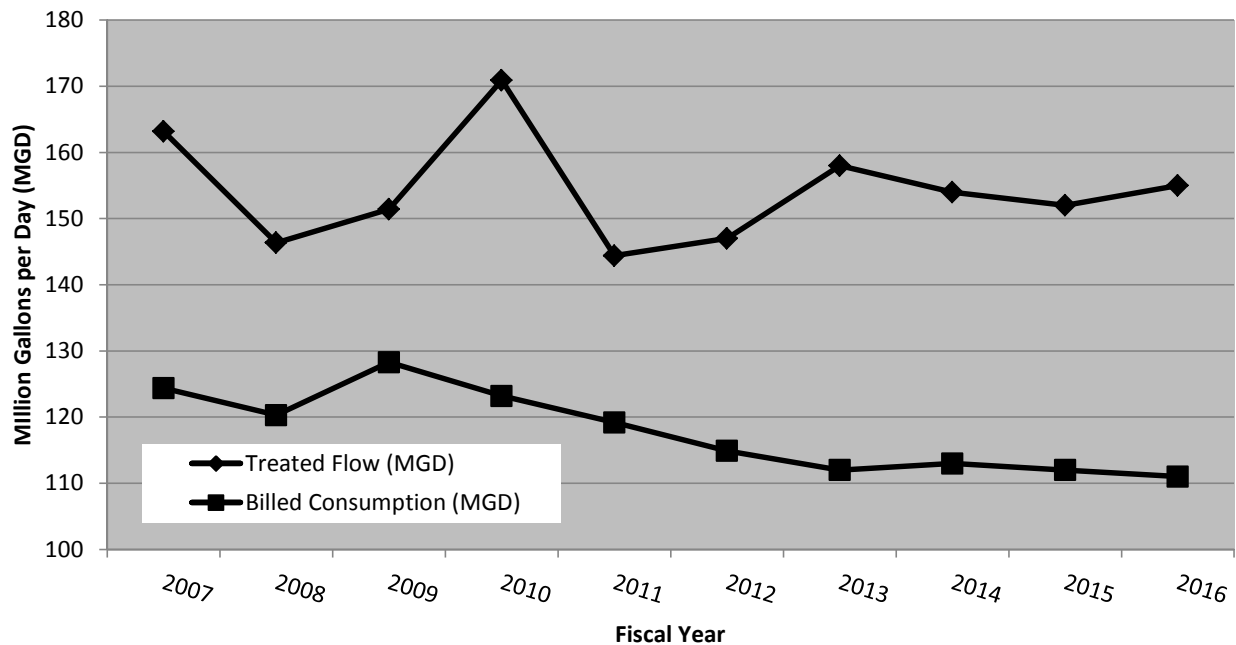
Employer	Type	2016			2007		
		Number of Employees	Rank	Percent of Regional Employment	Number of Employees	Rank	Percent of Regional Employment
Naval Station Norfolk	Military Facility	64,357	1	7.0%	96,000	1	9.2%
Huntington Ingalls Industries	Shipbuilding and repair	24,000	2	2.6%	18,000	2	1.7%
Joint Base Langley-Eustis	Military Facility	20,140	3	2.2%	21,182	3	2.0%
Sentara Healthcare	Health care network	22,000	4	2.4%	15,000	5	1.4%
Oceana Naval Air Station	Military Facility	17,156	5	1.9%	16,261	4	1.6%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	14,775	4	1.6%	16,372	7	1.6%
Norfolk Naval Shipyard	Shipbuilding and repair	10,734	7	1.2%	8,850	8	0.9%
Virginia Beach Public Schools	Public schools	10,576	8	1.1%	10,000	6	1.0%
Riverside Health System	Health care network	8,000	9	0.9%	7,000	9	0.7%
Norfolk City Public Schools	Public schools	6,527	10	0.7%	6,000	10	0.6%
Total		<u>133,908</u>		<u>14.5%</u>	<u>118,665</u>		<u>11.4%</u>

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**

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Year ended June 30,	Treated Flow (MGD)	Billed Consumption (MGD)
2007	163	124
2008	146	120
2009	151	128
2010	171	123
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111

Unaudited – See accompanying independent auditors' report

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

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<u>General Management</u>										
General Manager	3	3	3	3	4	4	4	4	4	4
Support Staff	1	1	1	1	1	1	1	1	1	1
	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
<u>Talent Management</u>										
Human Resources	5	5	5	5	5	6	6	5	5	5
Safety	3	0	0	0	0	0	0	0	0	0
Training	2	2	2	2	2	2	2	2	0	0
Support Staff	4	3	3	3	3	3	3	3	2	2
Total Finance & Administration	<u>14</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>11</u>	<u>11</u>	<u>10</u>	<u>7</u>	<u>7</u>
<u>Finance &amp; Administration</u>										
Accounting & Finance	10	10	10	10	10	10	10	10	10	10
Customer Care Center	77	69	69	68	69	69	69	63	61	58
Procurement	10	9	9	9	7	7	8	8	8	7
Support Staff	2	3	3	3	3	3	3	3	2	3
Total Finance & Administration	<u>99</u>	<u>91</u>	<u>91</u>	<u>90</u>	<u>89</u>	<u>89</u>	<u>90</u>	<u>84</u>	<u>81</u>	<u>78</u>
<u>Information Technology</u>										
Information Technology	45	39	35	35	33	33	33	21	21	21
Support Staff	1	1	1	1	2	2	2	3	3	3
Total Information Services	<u>46</u>	<u>40</u>	<u>36</u>	<u>36</u>	<u>35</u>	<u>35</u>	<u>35</u>	<u>24</u>	<u>24</u>	<u>24</u>
<u>Operations</u>										
Army Base Treatment Plant	31	32	32	32	32	32	32	32	32	32
Atlantic Base Treatment Plant	32	33	33	33	32	32	32	33	33	33
Boat Harbor Treatment Plant	32	33	33	33	33	33	34	34	34	34
Ches.-Eliz. Treatment Plant	31	32	32	32	32	32	32	32	32	32
Interceptor System Maintenance	115	120	120	120	121	122	122	106	93	89
James River Treatment Plant	20	21	21	21	21	21	21	21	21	21
Maintenance Shops	83	86	86	86	86	86	86	81	78	78
Nansemond Treatment Plant	30	31	31	31	30	30	30	30	30	30
Virginia Initiative Plant	30	31	31	31	31	31	31	31	31	31
Williamsburg Treatment Plant	28	29	29	29	31	31	31	31	34	34
York River Treatment Plant	22	23	23	23	23	23	23	23	23	23
Small Communities Division	21	17	17	17	17	17	15	15	15	13
Support Staff	24	25	25	25	24	24	24	24	30	30
Total - Operations	<u>499</u>	<u>513</u>	<u>513</u>	<u>513</u>	<u>513</u>	<u>514</u>	<u>513</u>	<u>493</u>	<u>486</u>	<u>480</u>
<u>Engineering</u>										
Design and Construction	25	21	19	19	17	15	15	15	14	14
Support Staff	14	14	14	14	14	14	14	14	13	13
Total - Engineering	<u>39</u>	<u>35</u>	<u>33</u>	<u>33</u>	<u>31</u>	<u>29</u>	<u>29</u>	<u>29</u>	<u>27</u>	<u>27</u>
<u>Water Quality</u>										
Industrial Waste (P3)	26	25	24	24	24	24	24	24	24	24
Technical Services	28	25	23	21	21	21	20	20	20	20
Laboratory	42	40	38	38	38	38	38	38	38	38
Support Staff	6	6	6	6	3	3	3	3	3	3
Total - Water Quality	<u>102</u>	<u>96</u>	<u>91</u>	<u>89</u>	<u>86</u>	<u>86</u>	<u>85</u>	<u>85</u>	<u>85</u>	<u>85</u>
<u>Total Employees</u>	<u>803</u>	<u>789</u>	<u>778</u>	<u>775</u>	<u>769</u>	<u>769</u>	<u>768</u>	<u>730</u>	<u>715</u>	<u>706</u>

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, 2016**

(in thousands)

As of June 30,	Senior Bonds			Subordinate Bonds	Total Debt
	Principal	Interest	Debt Service	Debt Service	Service
2017	15,361	19,827	35,188	22,584	57,772
2018	18,215	19,046	37,261	20,266	57,527
2019	18,658	18,237	36,895	20,264	57,159
2020	19,400	17,457	36,857	20,265	57,122
2021	18,586	16,673	35,259	21,117	56,376
2022	17,906	15,842	33,748	22,203	55,951
2023	21,956	15,002	36,958	18,965	55,923
2024	22,865	14,038	36,903	18,753	55,656
2025	23,833	13,013	36,846	18,757	55,603
2026	24,177	11,944	36,121	19,168	55,289
2027	19,700	10,983	30,683	24,468	55,151
2028	20,499	10,117	30,616	21,355	51,971
2029	25,693	9,215	34,908	16,945	51,853
2030	26,731	8,100	34,831	16,941	51,772
2031	17,167	7,188	24,355	27,726	52,081
2032	14,739	6,523	21,262	25,736	46,998
2033	13,280	5,892	19,172	25,735	44,907
2034	11,780	5,292	17,072	25,734	42,806
2035	12,295	4,640	16,935	25,483	42,418
2036	12,835	3,960	16,795	22,556	39,351
2037	7,245	3,250	10,495	28,763	39,258
2038	13,985	2,817	16,802	22,358	39,160
2039	14,595	2,044	16,639	7,728	24,367
2040	12,730	1,238	13,968	7,781	21,749
2041	4,800	815	5,615	7,841	13,456
2042	4,995	623	5,618	7,895	13,513
2043	5,190	424	5,614	7,906	13,520
2044	5,400	216	5,616	7,913	13,529
2045	-	-	-	8,018	8,018
2046	-	-	-	8,137	8,137
2047	-	-	-	8,260	8,260
Totals	<u>\$ 444,616</u>	<u>\$ 244,416</u>	<u>\$ 689,032</u>	<u>\$ 549,361</u>	<u>\$ 1,238,393</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
BUDGETARY COMPARISON SCHEDULE  
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

(in thousands)	<u>Budgeted Amounts</u>		<u>Actual Amounts</u>	<u>Variance under Final Budget</u>	<u>Percent Variance</u>
	<u>Original</u>	<u>Final</u>			
OPERATING BUDGET EXPENSES					
General Management	\$ 891	\$ 1,171	\$ 885	\$ 286	24.4%
Talent Management	2,152	2,163	2,052	111	5.1%
Finance	12,704	12,395	10,980	1,415	11.4%
Information Technology	13,126	14,697	12,139	2,558	17.4%
Operations	87,477	88,515	80,250	8,265	9.3%
Engineering	5,169	5,514	4,952	562	10.2%
Water Quality	13,682	13,549	12,653	896	6.6%
General	5,673	9,141	6,573	2,568	28.1%
Debt Service	60,522	59,315	59,302	13	0.0%
TOTAL	201,396	206,460	189,786	<u>\$ 16,674</u>	8.1%
Transfer to CIP	39,984	39,984			
Transfer to Risk Management	260	260			
	<u>\$ 241,640</u>	<u>\$ 246,704</u>			
Add:					
Unbudgeted Depreciation			45,670		
Unbudgeted Bad Debt Expense			2,446		
Capital Improvement Program items expensed			18,918		
Less:					
Capitalized Assets			1,960		
Debt Service			59,302		
Capital distributions to localities			3,287		
TOTAL OPERATING EXPENSES			<u>\$ 192,271</u>		

See Accompanying Notes to Budgetary Comparison Schedule

**HAMPTON ROADS SANITATION DISTRICT  
NOTES TO BUDGETARY COMPARISON SCHEDULE  
JUNE 30, 2016**

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**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-16 was \$201,396,494 and contains personnel costs, fringe benefits, material and supplies, electricity, chemicals, insurance, contractual services, debt service and other miscellaneous expenses. There were several modifications to the Operating Budget during the year to reflect changes in spending patterns. Transfers totaling \$5,063,983 for software upgrades, major repairs, and equipment replacements resulted in a final budget of \$246,703,983. All adjustments to the Annual Budget were approved from surplus fund balances or from transfers within or among departments.

**NOTE 1 – BUDGETARY ACCOUNTING AND CONTROL**

**Budget Preparation**

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

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

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

The final Annual Budget, which incorporates the Operating, Improvement, 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. There are no adjustments that would affect coverage at this time. 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-16 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, 2016**

	<u>Actual</u>	<u>Amended Budget</u>	<u>Variance Favorable/ (Unfavorable)</u>	<u>Budget Variance Percentage</u>
OPERATING REVENUE				
Wastewater Treatment Charges	\$ 234,020	\$ 228,700	\$ 5,320	2%
Miscellaneous	3,861	3,140	721	23%
TOTAL OPERATING REVENUE	<u>237,881</u>	<u>231,840</u>	<u>6,041</u>	3%
CURRENT EXPENDITURES				
General Management	885	1,171	286	24%
Talent Management	2,052	2,163	111	5%
Finance	10,980	12,395	1,415	11%
Information Technology	12,139	14,697	2,558	17%
Operations	80,250	88,515	8,265	9%
Engineering	4,952	5,514	562	10%
Water Quality	12,653	13,549	896	7%
General	6,573	9,141	2,568	28%
TOTAL CURENT EXPENDITURES	<u>130,484</u>	<u>147,145</u>	<u>16,661</u>	11%
EXCESS OF OPERATING REVENUES OVER EXPENDITURES	<u>107,397</u>	<u>84,695</u>	<u>22,702</u>	27%
NON-OPERATING REVENUE (EXPENSE)				
Wastewater Facility Charge	6,699	6,000	699	12%
Interest Income	2,313	1,400	913	65%
Bond Interest Subsidy	2,399	2,400	(1)	0%
Capital distributions to localities	(3,287)	-	(3,287)	0%
TOTAL NON-OPERATING REVENUE	<u>8,124</u>	<u>9,800</u>	<u>(1,676)</u>	-17%
INCOME BEFORE CAPITAL CONTRIBUTIONS	115,521	94,495	21,026	22%
CAPITAL CONTRIBUTIONS				
State Capital Grants	<u>14,389</u>	<u>-</u>	<u>14,389</u>	100%
AMOUNT AVAILABLE FOR DEBT	129,910	94,495	35,415	37%
DEBT EXPENDITURES				
Principal & Interest	57,589	58,415	826	1%
Cost of Issuance	<u>1,713</u>	<u>900</u>	<u>(813)</u>	-90%
TOTAL DEBT EXPENDITURES	<u>59,302</u>	<u>59,315</u>	<u>13</u>	0%
AMOUNT AVAILABLE TO REINVEST	<u>\$ 70,608</u>	<u>\$ 35,180</u>	<u>\$ 35,402</u>	101%

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 30,2016**

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	General Manageme nt	Talent Manageme nt	Finance	Information Technolog y	Operations	Engineering
(in thousands)						
Personal Services	\$ 638	\$ 1,313	\$ 5,432	\$ 3,579	\$ 30,636	\$ 3,139
Fringe Benefits	133	381	1,805	1,001	10,951	935
Materials & Supplies	6	52	143	1,671	4,752	19
Transportation	36	33	77	55	1,112	53
Utilities	-	-	211	1,402	9,148	-
Chemical Purchases	-	-	-	-	7,512	-
Contractual Services	59	58	3,195	3,458	8,701	659
Major Repairs	7	-	1	706	5,717	66
Capital Assets	-	15	-	169	1,150	-
Miscellaneous Expense	6	200	116	98	571	81
<b>Total Department Expenditures</b>	<b>\$ 885</b>	<b>\$ 2,052</b>	<b>\$ 10,980</b>	<b>\$ 12,139</b>	<b>\$ 80,250</b>	<b>\$ 4,952</b>

Debt Service

Cost of Issuance Bonds

Total Debt Expenditures

Total Department and Debt Expenditures

(Continued)

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 30,2016**

	Water Quality	General	Total	Percent of Total	FY-2016 Budget	Variance Favorable/ (Unfavorable)
(in thousands)						
Personal Services	\$ 6,839	\$ 225	\$ 51,801	27%	\$ 51,895	\$ 94
Fringe Benefits	2,233	535	17,974	9%	20,596	2,622
Materials & Supplies	1,174	26	7,843	4%	6,547	(1,296)
Transportation	170	1	1,537	1%	1,391	(146)
Utilities	-	488	11,249	6%	12,492	1,243
Chemical Purchases	-	-	7,512	4%	9,079	1,567
Contractual Services	620	4,823	21,573	11%	26,039	4,466
Major Repairs	696	-	7,193	4%	10,808	3,615
Capital Assets	626	-	1,960	1%	3,451	1,491
Miscellaneous Expense	295	475	1,842	1%	4,847	3,005
<b>Total Department Expenditures</b>	<b>\$ 12,653</b>	<b>\$ 6,573</b>	<b>130,484</b>	<b>69%</b>	<b>147,145</b>	<b>16,661</b>
Debt Service			57,589	30%	58,415	826
Cost of Issuance Bonds			1,713	1%	900	(813)
Total Debt Expenditures			59,302	31%	59,315	13
Total Department and Debt Expenditures			<b>\$ 189,786</b>	<b>100%</b>	<b>\$ 206,460</b>	<b>\$ 16,674</b>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

(in thousands)	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
<b>General Management</b>			
Personal Services	\$ 638	\$ 584	\$ (54)
Fringe Benefits	133	137	4
Materials & Supplies	6	10	4
Transportation	36	32	(4)
Contractual Services	59	93	34
Major Repairs	7	-	(7)
Miscellaneous Expense	6	315	309
	<u>885</u>	<u>1,171</u>	<u>286</u>
<b>Talent Management</b>			
Personal Services	1,313	1,328	15
Fringe Benefits	381	418	37
Materials & Supplies	52	65	13
Transportation	33	24	(9)
Contractual Services	58	79	21
Capital Assets	15	13	(2)
Miscellaneous Expense	200	236	36
	<u>2,052</u>	<u>2,163</u>	<u>111</u>
<b>Finance</b>			
Personal Services	5,432	5,939	507
Fringe Benefits	1,805	2,221	416
Materials & Supplies	143	128	(15)
Transportation	77	108	31
Utilities	211	278	67
Contractual Services	3,195	3,432	237
Major Repairs	1	-	(1)
Capital Assets	-	33	33
Miscellaneous Expense	116	256	140
	<u>10,980</u>	<u>12,395</u>	<u>1,415</u>
<b>Information Technology</b>			
Personal Services	3,579	3,977	398
Fringe Benefits	1,001	1,235	234
Materials & Supplies	1,671	1,436	(235)
Transportation	55	54	(1)
Utilities	1,402	1,332	(70)
Contractual Services	3,458	5,209	1,751
Major Repairs	706	1,075	369
Capital Assets	169	169	-
Miscellaneous Expense	98	210	112
	<u>12,139</u>	<u>14,697</u>	<u>2,558</u>

(Continued)

Unaudited – See accompanying independent auditors' report



**HAMPTON ROADS SANITATION DISTRICT  
DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

(in thousands)	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
Operations			
Personal Services	\$ 30,636	\$ 29,374	\$ (1,262)
Fringe Benefits	10,951	12,532	1,581
Materials & Supplies	4,752	3,734	(1,018)
Transportation	1,112	941	(171)
Utilities	9,148	10,345	1,197
Chemical Purchases	7,512	9,079	1,567
Contractual Services	8,701	10,386	1,685
Major Repairs	5,717	8,731	3,014
Capital Assets	1,150	2,584	1,434
Miscellaneous Expense	571	809	238
	<u>80,250</u>	<u>88,515</u>	<u>8,265</u>
Engineering			
Personal Services	3,139	3,432	293
Fringe Benefits	935	1,057	122
Materials & Supplies	19	22	3
Transportation	53	68	15
Contractual Services	659	784	125
Major Repairs	66	50	(16)
Miscellaneous Expense	81	101	20
	<u>4,952</u>	<u>5,514</u>	<u>562</u>
Water Quality			
Personal Services	6,839	6,861	22
Fringe Benefits	2,233	2,408	175
Materials & Supplies	1,174	1,092	(82)
Transportation	170	163	(7)
Contractual Services	620	980	360
Major Repairs	696	952	256
Capital Assets	626	652	26
Miscellaneous Expense	295	441	146
	<u>12,653</u>	<u>13,549</u>	<u>896</u>
General			
Personal Services	225	400	175
Fringe Benefits	535	588	53
Materials & Supplies	26	60	34
Transportation	1	1	-
Utilities	488	537	49
Contractual Services	4,823	5,076	253
Miscellaneous Expense	475	2,479	2,004
	<u>6,573</u>	<u>9,141</u>	<u>2,568</u>
TOTAL DEPARTMENTAL EXPENDITURES	<u>\$ 130,484</u>	<u>\$ 147,145</u>	<u>\$ 16,661</u>

Unaudited – See accompanying independent auditors' report

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Foresighted citizens of the region, on November 5, 1940, passed the referendum that established the Hampton Roads Sanitation District. In commemoration of the 75th anniversary of our creation, HRSD is paying tribute to those with the conviction to vote to eliminate sewage pollution in the tidal waters of the Chesapeake Bay by publishing the history of their legacy. The images featured on the cover and dividers of this report tell an important part of that story—the construction and upgrade of HRSD facilities over the decades. To read more about HRSD and our infrastructure, visit [www.hrsd.com](http://www.hrsd.com) and learn how we are Living the Legacy.

## PHOTO CAPTIONS

FRONT COVER: The Lamberts Point Plant outfall was constructed in 1946.

INTRODUCTORY SECTION: Workers place steel in a digester under construction at the Boat Harbor Plant in 1959.

FINANCIAL SECTION: The HRSD network, which included 42 pump stations in 1966, continued to grow with the addition of facilities such as the Newtown Pump Station, shown under construction in 1968.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED): The docked SS United States can be seen through rebar work during construction of aeration basins at the Army Base Plant in 1978.

STATISTICAL SECTION (UNAUDITED): The diffuser for the Nansemond Plant was assembled in 1982.

OTHER SUPPLEMENTAL SECTION (UNAUDITED): The Williamsburg Treatment Plant was expanded to 22 MGD during a major upgrade completed in 1992.



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