

Prince William County Service Authority
Comprehensive Annual Financial Report

2017

For the fiscal years ended
June 30, 2017 and June 30, 2016



Woodbridge, Virginia

The Prince William County Service Authority provides its customers clean water 24 hours a day, seven days a week through a secure and reliable network of assets.

We consistently deliver high quality water to Prince William County residents and businesses in an efficient, sustainable and affordable manner while continuously monitoring and maintaining the integrity of our distribution system.

Our strong emphasis on technology allows us to respond quickly to emergencies and more accurately forecast our future needs in one of the fastest growing areas of Virginia. Our commitment to excellence contributes to the health of our customers, safeguards the environment and helps to support the economic vitality of the region.



Dean E. Dickey

Dean E. Dickey
General Manager



2017

**Prince William County Service Authority
Comprehensive Annual Financial Report**

For the fiscal years ended
June 30, 2017 and June 30, 2016

**Prepared by the Finance Division:
Astrid B. Nelson, Director**

Woodbridge, Virginia



We distribute
10.4
BILLION GALLONS
of clean drinking
WATER
each year

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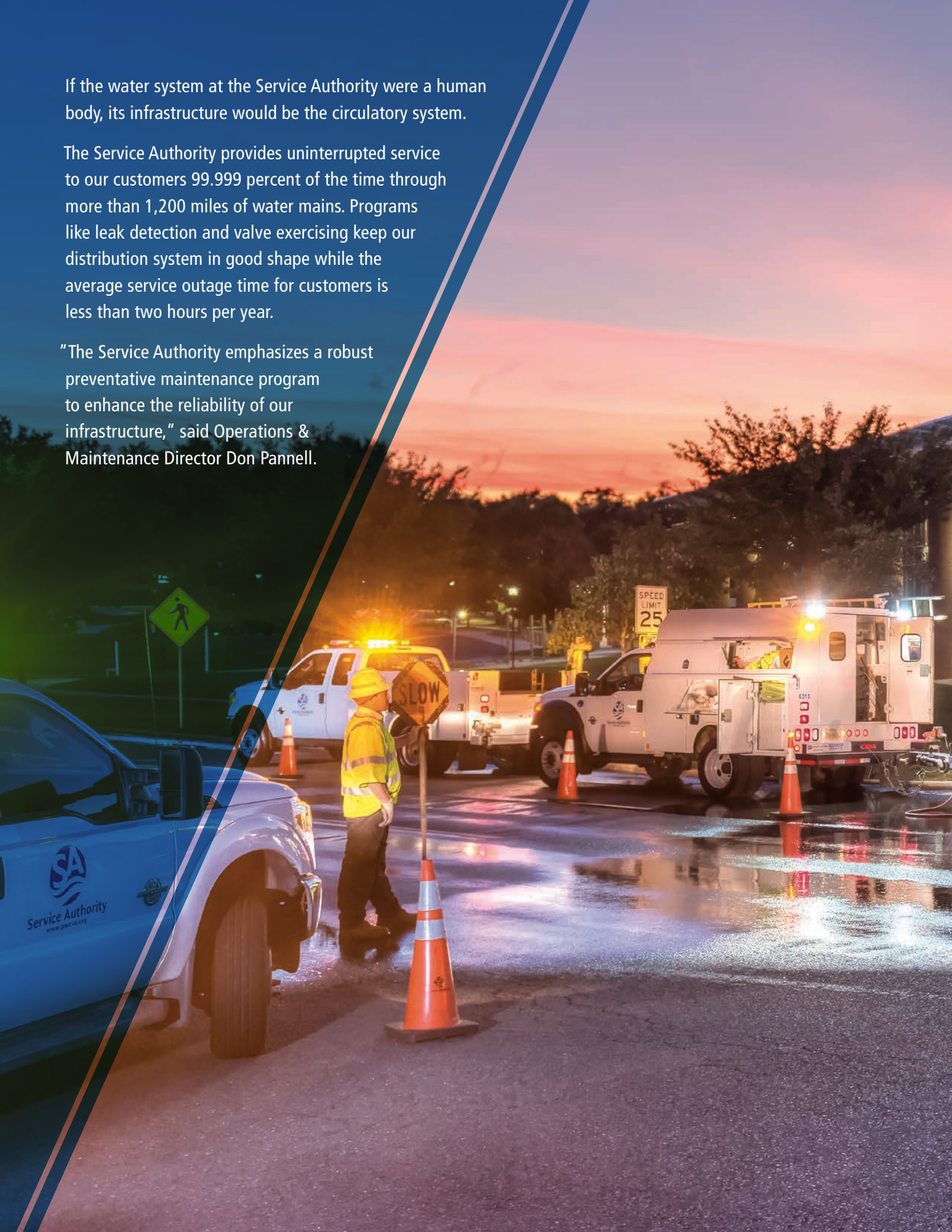
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If the water system at the Service Authority were a human body, its infrastructure would be the circulatory system.

The Service Authority provides uninterrupted service to our customers 99.999 percent of the time through more than 1,200 miles of water mains. Programs like leak detection and valve exercising keep our distribution system in good shape while the average service outage time for customers is less than two hours per year.

"The Service Authority emphasizes a robust preventative maintenance program to enhance the reliability of our infrastructure," said Operations & Maintenance Director Don Pannell.





Introductory Section

Reliable

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4 County Complex Court
P.O. Box 2266
Woodbridge, VA 22195-2266

Phone (703) 335-7900
Fax (703) 335-7905
www.pwcsa.org



Paul E. Ruecker, Chairman
Dr. K. Jack Kooyoomjian, Vice Chairman
Kurt E. Voggenreiter II, Secretary-Treasurer
Mark Allen, Member
Janice R. Carr, Member
Joyce P. Eagles, Member
Ernie Gonzales, Member
David A. Rutherford, Member

Dean E. Dickey, General Manager
Leslie A. Griffith, Deputy General Manager/CFO

November 21, 2017

Board of Directors of the
Prince William County Service Authority
Woodbridge, Virginia

Ladies and Gentlemen:

The Comprehensive Annual Financial Report (CAFR) for the Prince William County Service Authority (the Authority) for the fiscal year ended June 30, 2017 is submitted herewith. Financial data, including all appropriate disclosures, have been prepared in accordance with the standards for financial reporting promulgated or permitted by the Governmental Accounting Standards Board (GASB).

Management is responsible, in all material respects, for the accuracy of the data and the completeness and fairness of the presentations, including all disclosures. We believe the data presents fairly the financial position and results of operations of the Authority.

This letter of transmittal is designed to complement the Management's Discussion and Analysis (MD&A) found in the financial section of the CAFR, and should be read in conjunction with it.

THE AUTHORITY

The Authority was created by a resolution of the Board of County Supervisors (BOCS) of Prince William County, Virginia (the County) on January 11, 1983. The Authority is chartered by the State Corporation Commission and is an independent public body responsible for providing a comprehensive county-wide water and sewer system.

The management of the Authority is vested in a Board of eight members appointed by the County's BOCS. The Authority's Board appoints the General Manager, who is responsible for the daily management of the Authority.

ECONOMIC CONDITIONS AND OUTLOOK

The County is located approximately 35 miles southwest of Washington, D.C., encompassing 348 square miles, and is an integral part of the Washington metropolitan area. The service area of the Authority is traversed by two major interstates providing access to the metropolitan area and surrounding jurisdictions. The County's population continues to increase and was approximately 455,000 as of June 30, 2017, an increase of nearly 17% over the past 10 years.

According to the 2011-2015 American Community Survey, the 2015 median household income in the County was \$98,657, which ranks near the top among regions in the Commonwealth of Virginia, and the entire United States. Employment within the service area is well diversified, and as of June 2017, the unemployment rate was 3.5%, which is below both the national and Virginia state-wide levels. The total civilian labor force in Prince William County is currently estimated at approximately 243,000 persons, up 3.6% from 2016 and 17.7% from 2008. Based on the most current available data, the County has experienced improvement in the residential real estate market, as the average assessed value in 2017 was up 39.3% from the low point in 2009.

The Authority's major customers are well-established entities consisting of county schools, local utilities, internet data centers, multi-family housing complexes, a hospital laundry facility, county parks, retail outlets and military housing. In total, the ten largest customers represent just under 6% of total consumption revenues. Overall, the Authority's customer base is primarily residential accounts, representing more than 90% of the accounts billed. The Authority continues to experience growth in customer accounts, with an additional 1,657 accounts added during fiscal year 2017, representing an increase of 1.9% over the prior year.

LONG-TERM FINANCIAL PLANNING

In order to facilitate long-term planning, the Authority maintains a model of its finances projecting 20 years into the future, with particular attention to the immediate five year period. This model includes projections of water and sewer capacity utilization, system growth and related availability fee revenue, operating revenues and expenses, debt service requirements, and cash flows.

The Authority also maintains and updates a Capital Improvements Program (CIP) on an annual basis, which details capital projects that are necessary for system expansion and rehabilitation. This program details planned spending for the ensuing five year period, and aggregate capital spending anticipated for identified projects in subsequent years.

The Authority uses this data to facilitate projection of necessary rate increases and additional capacity requirements, to ensure proper debt coverage and to provide for adequate funding for the Authority's ongoing activities and obligations.

The Authority uses a Strategic Plan developed with input from the Board of Directors, management and staff, as a tool to ensure that financial planning will support the future needs and priorities of the organization. Within the plan, a set of goals, both financial and operational, are created each year to prioritize future actions.

The Authority maintains a AAA rating from Standard & Poor's Ratings Services (S&P) and in 2015 was upgraded by Moody's Investors Service, Inc. (Moody's) to Aaa on its outstanding revenue bonds, the highest ratings that can be awarded to local governments. This further demonstrates and validates the Authority's sound financial condition and the positive impact of long-term financial planning.

INTERNAL CONTROL STRUCTURE AND BUDGETARY CONTROLS

The Authority's management is responsible for establishing and maintaining a system of internal accounting controls. The objectives of internal controls are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and financial records for preparing financial statements and maintaining asset accountability are reliable. The concept of reasonable assurance recognizes that estimates and judgments made by management are required to assess the expected benefits and related costs of internal accounting control procedures and that the cost of a control should not exceed the benefits likely to be derived. Management reviews internal controls on a continuing basis.

The Authority prepares a biennial budget for operating expenditures and capital outlays. The proposed budget is prepared by management and submitted to the Board of Directors for approval. The Authority's spending budget for fiscal years 2017 and 2018 reflected a 1.1% and 2.8% increase, respectively. The Authority controls current year expenses at both the functional and operating division levels. Division directors are responsible for budgetary items that are controllable within their divisions. The Division of Management and Budget is responsible for monitoring expenses by function for the Authority as a whole. Controlling all expenses at different levels strengthens overall budgetary and management controls.

INDEPENDENT AUDIT

The Virginia State Code requires an annual audit be performed. The Authority's financial statements for the year ended June 30, 2017 and 2016 have been audited by PBMares, LLP, a firm of licensed certified public accountants. The fiscal year 2017 Independent Auditor's Report is located in the financial section of this document.

AWARDS

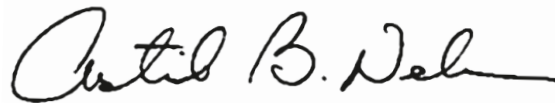
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Prince William County Service Authority for its CAFR for the fiscal year ended June 30, 2016. This was the 28th consecutive year that the Authority has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government entity must publish an easily readable and efficiently organized CAFR, which must satisfy both accounting principles generally accepted in the United States of America and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe this year's CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for continued recognition under this program.

ACKNOWLEDGMENTS

The preparation of the annual CAFR could not have been accomplished without the dedicated services of the Authority's Finance staff. All individuals who assisted in this effort have my sincere appreciation for their contributions made in the preparation of this report. I would also like to thank the Board of Directors, the General Manager, the Deputy General Manager and the Director of Management and Budget for their continued interest and support in planning and conducting the financial operations of the Authority in a responsible and progressive manner.

Respectfully submitted,

A handwritten signature in black ink, reading "Astrid B. Nelson". The signature is fluid and cursive, with a long horizontal line extending from the end.

Astrid B. Nelson
Director of Finance



Joyce P. Eagles
Chairman



Paul E. Ruecker
Vice Chairman



Janice R. Carr
Secretary-Treasurer



Mark Allen



Ernie Gonzales



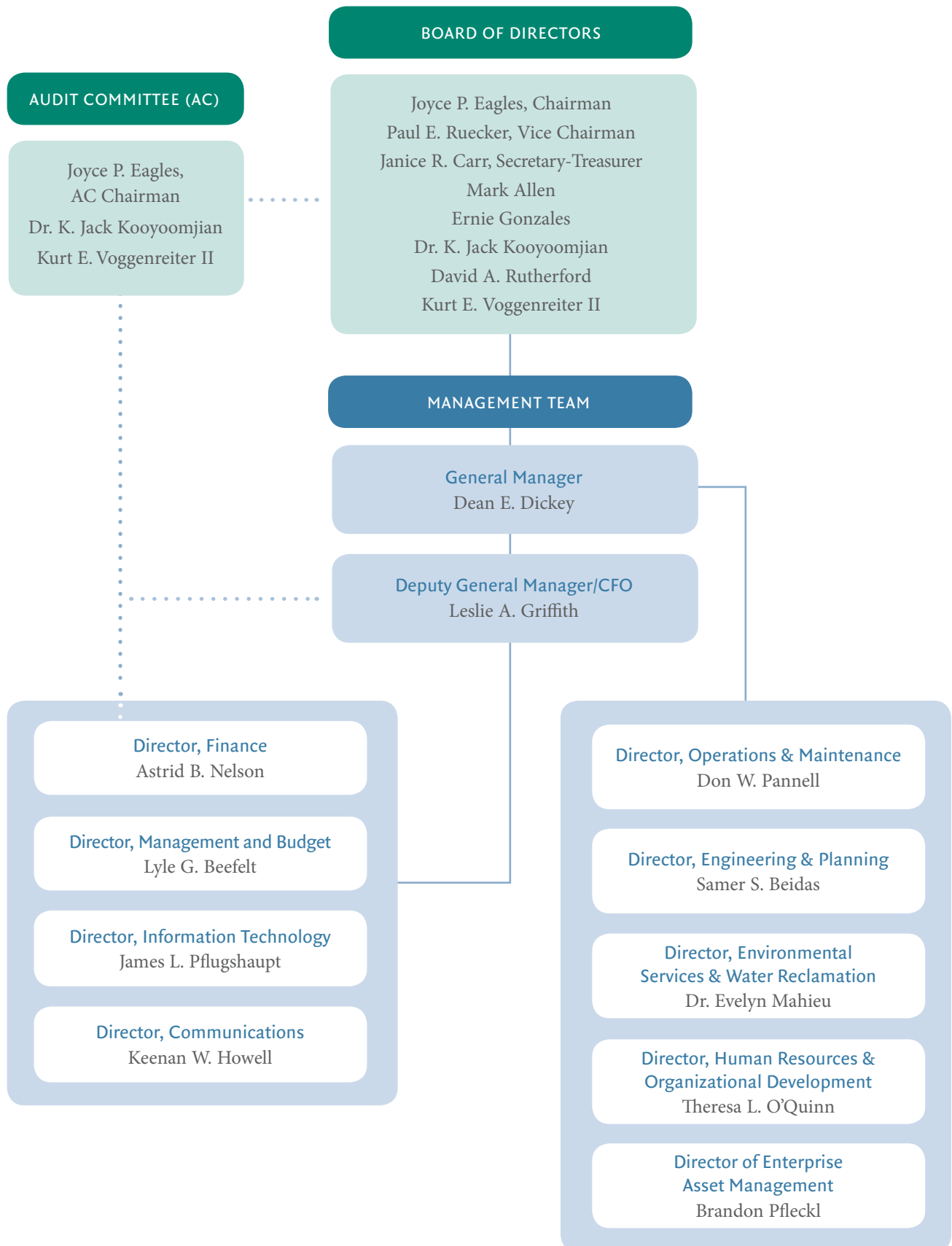
Dr. K. Jack Kooyoomjian



David A. Rutherford



Kurt E. Voggenreiter II





Government Finance Officers Association

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

Presented to

**Prince William County
Service Authority, Virginia**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO

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Financial Section

Secure

The Service Authority's nerve center is its Supervisory Control and Data Acquisition (SCADA) system, which allows us to closely monitor our billion dollars' worth of water and wastewater assets.

Using this technology helps us identify issues occurring at any of our water tanks, booster stations, lift stations, wells and meter vaults as well as our wastewater treatment plant in eastern Prince William County.

"With SCADA, we can quickly identify and address any issues that could have a negative impact on our infrastructure, customers or the environment," said Water & Wastewater Facilities Manager Robert Jenkins.



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INDEPENDENT AUDITOR'S REPORT

To the Honorable Board of Directors
Prince William County Service Authority
Woodbridge, Virginia

Report on the Financial Statements

We have audited the accompanying basic financial statements of the Prince William County Service Authority (Authority), as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Those standards and specifications require we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Authority'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 Authority'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 the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority, as of June 30, 2017 and 2016, and the respective changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require the Management's Discussion and Analysis and the required supplementary information on pages 14-25 and 59-61, respectively, 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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The accompanying introductory section and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

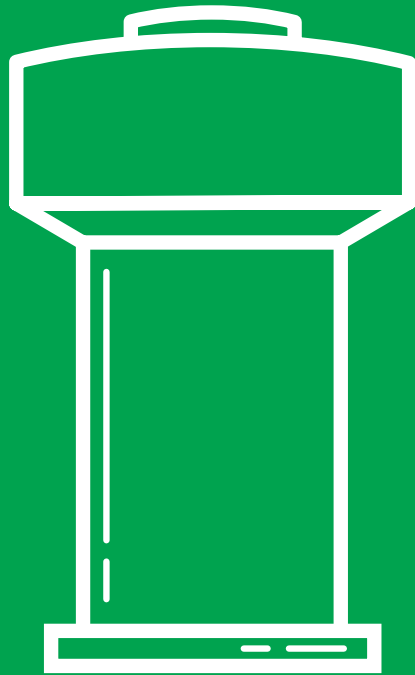
These sections have not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 21, 2017 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

PBMares, LLP

Harrisonburg, Virginia
November 21, 2017



The Service Authority's

22 STORAGE
TANKS

collectively hold

26.1M

Gallons of Water

Management's Discussion and Analysis

This section of Prince William County Service Authority's CAFR presents management's analysis of the Authority's financial performance during the fiscal year ended June 30, 2017. This analysis should be read in conjunction with the basic financial statements, which are located in the next section of the CAFR.

FINANCIAL HIGHLIGHTS

- The Authority's customer base grew by approximately 1.9%, or 1,657 accounts, to 90,892 during fiscal year 2017.
- Fiscal year 2017 operating revenues increased 5.6% to \$114.6 million as compared to fiscal year 2016 while operating expenses increased 5.8% to \$76.1 million during the same period.
- Availability fee revenues from new developer connections were \$36.6 million in fiscal year 2017, an increase of \$10.1 million or 38.3% from the prior year. There were 2,336 equivalent residential units (ERU) certified in fiscal year 2017, compared to 1,743 ERUs in the prior year.
- Contributions from developers and others increased \$1.1 million, or 5.1%, over the prior year.
- The Authority's total net position increased by \$46.8 million during fiscal year 2017, which represents a 3.7% increase over the prior year ending balance.

OVERVIEW OF THE FINANCIAL STATEMENTS

This CAFR is presented in three sections: introductory, financial and statistical. The introductory section includes a letter of transmittal submitted by the Authority's Director of Finance, a listing of the Authority's Board of Directors and organizational chart as of June 30, 2017, and a copy of the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting that has been awarded to the Authority for the fiscal year ended June 30, 2016.

The financial section consists of the Independent Auditor's Report, Management's Discussion and Analysis, and the Authority's basic financial statements which are discussed below, and are presented comparatively for the fiscal years ended June 30, 2017 and 2016.

- Statements of Net Position
- Statements of Revenues, Expenses and Changes in Net Position
- Statements of Cash Flows
- Notes to Financial Statements
- Required Supplementary Information

The Statements of Net Position reports the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, providing information about the nature and amounts of investments in resources (assets) and obligations to creditors (liabilities). These statements may be used to evaluate the capital structure, liquidity, and financial flexibility of the Authority. The Statements of Revenues, Expenses and Changes in Net Position reflect revenue and expense activity of the Authority for the fiscal years presented. These statements allow the user to measure the Authority's profitability and credit worthiness by the financial performance of the Authority's operations, and to determine whether the Authority has successfully recovered its operating costs through user fees and other charges. The Statements of Cash Flows present the Authority's inflows and outflows of cash during the financial reporting periods, by reporting cash receipts, cash payments, and the net changes in cash. Cash flows are categorized by operating, non-capital financing, capital and related financing, and investing activities. The Notes to Financial Statements and the Required Supplementary Information provide necessary disclosures essential to a full understanding of the data provided in the aforementioned basic financial statements.

The Statistical Section includes selected financial, operational, and demographic information presented on a multi-year basis.

The Authority operates as an enterprise fund. Enterprise funds are a type of proprietary fund and function similar to a private business in that user charges and fees are expected to cover costs. The Authority's basic financial statements are presented using the accrual basis of accounting, which provides for revenue recognition in the period in which water and water reclamation services are provided and expense recognition when goods and services are received. Additionally, the Authority's basic financial statements utilize the flow of economic resources measurement focus, in which all assets, deferred outflows of resources, liabilities and deferred inflows of resources are reflected on the Statements of Net Position, and the Statements of Changes in Revenues, Expenses and Net Position include all transactions, such as revenues and expenses, that increase or decrease net position.

FINANCIAL ANALYSIS OF THE AUTHORITY

During fiscal year 2017, the Authority maintained its sound financial condition, as demonstrated by the Authority's continued AAA bond rating from S&P and Aaa rating from Moody's, upgraded in August 2015. This accomplishment can be measured by the Authority's continued growth in total net position and strong cash and investment portfolio, along with the strategic management of its debt borrowings, which are all outlined in the financial statements and schedules included in this report. While exercising prudent fiscal discipline, the Authority continues to ensure it is able to provide safe, reliable and environmentally compliant water and water reclamation services to its customers.

Net Position

The Authority's net position increased by \$46.8 million during fiscal year 2017, which represented a 3.7% increase from the prior fiscal year net position. At June 30, 2017, total net position was \$1.30 billion as compared to \$1.25 billion the previous year.

The following table reflects the Authority's net position at June 30, 2017 and 2016:

Condensed Statements of Net Position

	2017	2016	Increase (Decrease)	% Change
Capital assets, net	\$ 1,017,167,213	\$ 983,246,390	\$ 33,920,823	3.4%
Investments	337,598,285	334,560,731	3,037,554	0.9
Other current and non-current assets	100,905,791	101,620,659	(714,868)	(0.7)
Deferred outflows of resources	7,506,473	6,586,898	919,575	14.0
Total assets and deferred outflows of resources	\$ 1,463,177,762	\$ 1,426,014,678	\$ 37,163,084	2.6
Bonds and VRA loans payable	\$ 137,205,354	\$ 146,407,716	\$ (9,202,362)	(6.3)
Other liabilities	28,916,043	28,822,290	93,753	0.3
Deferred inflows of resources	—	575,795	(575,795)	(100.0)
Total liabilities and deferred inflows of resources	166,121,397	175,805,801	(9,684,404)	(5.5)
Net position:				
Net investment in capital assets	882,957,271	840,189,224	42,768,047	5.1
Restricted	17,204,241	16,555,471	648,770	3.9
Unrestricted	396,894,853	393,464,182	3,430,671	0.9
Total net position	1,297,056,365	1,250,208,877	46,847,488	3.7
Total liabilities, deferred inflows of resources and net position	\$ 1,463,177,762	\$ 1,426,014,678	\$ 37,163,084	2.6

As reported in the Authority's 2016 CAFR, the Authority's net position increased by \$32.3 million during fiscal year 2016, which represented a 2.7% increase from the prior fiscal year ending net position. At June 30, 2016, total net position was \$1.25 billion as compared to \$1.22 billion the previous year.

The following table reflects the Authority's net position at June 30, 2016 and 2015:

Condensed Statements of Net Position

	2016	2015	Increase (Decrease)	% Change
Capital assets, net	\$ 983,246,390	\$ 957,985,529	\$ 25,260,861	2.6%
Investments	334,560,731	326,581,695	7,979,036	2.4
Other current and non-current assets	101,620,659	109,302,696	(7,682,037)	(7.0)
Deferred outflows of resources	6,586,898	5,846,847	740,051	12.7
Total assets and deferred outflows of resources	<u>\$ 1,426,014,678</u>	<u>\$ 1,399,716,767</u>	<u>\$ 26,297,911</u>	1.9
Bonds and VRA loans payable	\$ 146,407,716	\$ 155,101,606	\$ (8,693,890)	(5.6)
Other liabilities	28,822,290	25,333,264	3,489,026	13.8
Deferred inflows of resources	575,795	1,405,287	(829,492)	(59.0)
Total liabilities and deferred inflows of resources	<u>175,805,801</u>	<u>181,840,157</u>	<u>(6,034,356)</u>	(3.3)
Net position:				
Net investment in capital assets	840,189,224	806,629,315	33,559,909	4.2
Restricted	16,555,471	15,954,025	601,446	3.8
Unrestricted	393,464,182	395,293,270	(1,829,088)	(0.5)
Total net position	<u>1,250,208,877</u>	<u>1,217,876,610</u>	<u>32,332,267</u>	2.7
Total liabilities, deferred inflows of resources and net position	<u>\$ 1,426,014,678</u>	<u>\$ 1,399,716,767</u>	<u>\$ 26,297,911</u>	1.9

Net Investment in Capital Assets

Investments in capital assets are essential to the Authority's infrastructure and the ability to provide quality services to its customers. Net investment in capital assets consists of property, plant, and equipment, construction in progress and advance capacity payments, and is net of any related long-term debt outstanding.

2017-2016 Comparison

Net investment in capital assets was \$883.0 million at June 30, 2017 and represented 68.1% of total net position. Net investment in capital assets increased by 5.1% or \$42.8 million over the prior year. The principal factors for this increase were a \$33.9 million increase in capital assets, net of accumulated depreciation and amortization, and an \$8.8 million reduction in bonds and VRA loans payable through scheduled debt service payments. The primary capital asset additions during the year were developer contributions (\$22.9 million) and the ongoing construction in progress of new or replacement facilities, as discussed later in this section.

2016-2015 Comparison

Net investment in capital assets was \$840.2 million at June 30, 2016 and represented 67.2% of total net position. Net investment in capital assets increased by 4.2% or \$33.6 million over the prior year. The principal factors for this increase were a \$25.3 million increase in capital assets, net of accumulated depreciation and amortization, and an \$8.3 million reduction in bonds and VRA loans payable through scheduled debt service payments. The primary capital asset additions during the year were developer contributions (\$21.8 million) and the ongoing construction in progress of new or replacement facilities.

Restricted Net Position

Restricted net position is comprised of restricted cash and investments and related interest receivable, and is generally subject to external restrictions on how it may be utilized. Restricted cash and investments consist principally of money market funds held by a Trustee for debt service and capital project accounts, in addition to customer deposits and other project-related escrow funds.

2017-2016 Comparison

Restricted net position was \$17.2 million at June 30, 2017 and represented 1.3% of total net position. The net increase of \$650,000 is primarily due to slight increases in restricted cash and cash equivalents and investments, and increased volume of tenant account and other deposits.

2016-2015 Comparison

Restricted net position was \$16.6 million at June 30, 2016 and represented 1.3% of total net position. The net increase of \$600,000 is primarily due to slight increases in restricted cash and cash equivalents and investments, and increased volume of tenant account deposits.

Unrestricted Net Position

Unrestricted net position is used to fund the Authority's CIP and ongoing operating needs. Unrestricted net position is comprised of the Authority's unrestricted cash and investments, receivables, equity interest in UOSA, and other non-capital assets, less other liabilities. Unrestricted cash and investments consist of government securities, bank deposits and other cash equivalents. These assets may be used to finance day-to-day operations without restrictions established by debt covenants or other requirements. When making investments, the Authority considers cash flow requirements as well as the quality and return of potential investments, with the primary goal of preservation of invested capital. The equity interest in UOSA represents the Authority's share of UOSA's net position and is not liquid.

2017-2016 Comparison

Unrestricted net position increased \$3.4 million during fiscal year 2017 to \$396.9 million, a 0.9% increase from the prior year. Unrestricted net position comprises 30.6% of total net position. The increase is primarily due to normal fluctuations in unrestricted asset and liability accounts. At June 30, 2017, unrestricted cash and investments represented 83.6% of unrestricted net position.

2016-2015 Comparison

Unrestricted net position decreased \$1.8 million during fiscal year 2016 to \$393.5 million, a 0.5% decrease from the prior year. Unrestricted net position comprises 31.5% of total net position. The decrease is primarily due to an \$8.1 million reduction in the Authority's equity interest in UOSA, partially offset by a \$7 million increase in unrestricted investments and normal fluctuations in all other unrestricted asset and liability accounts. At June 30, 2016, unrestricted cash and investments represented 84.3% of unrestricted net position.

Changes in Revenues, Expenses and Net Position

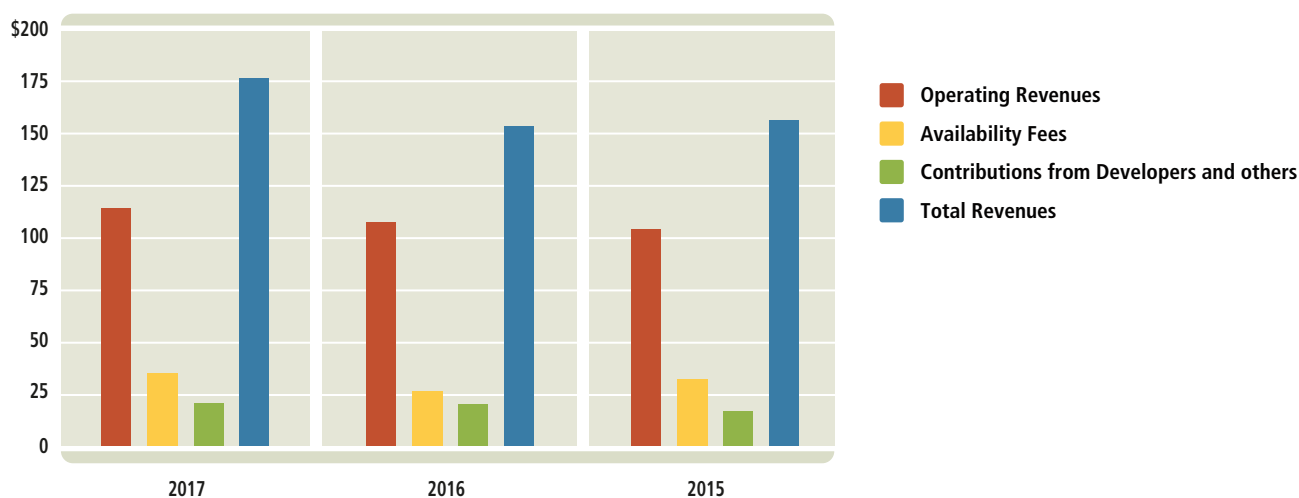
While the Statements of Net Position reflect the change in the Authority's financial position, the Statements of Revenues, Expenses and Changes in Net Position that follow provide insight as to the nature and source of those changes.

The following table summarizes changes in revenues and expenses between fiscal year 2017 and 2016:

Condensed Statements of Revenues, Expenses and Changes in Net Position

	2017	2016	Increase (Decrease)	% Change
Water and sewer user charges	\$ 111,896,117	\$ 105,937,332	\$ 5,958,785	5.6%
Development charges	1,907,166	1,685,352	221,814	13.2
Other	747,419	827,642	(80,223)	(9.7)
Total operating revenues	114,550,702	108,450,326	6,100,376	5.6
Availability fees	36,616,696	26,471,044	10,145,652	38.3
Investment income	471,605	4,516,908	(4,045,303)	(89.6)
Equity interest in UOSA	821,845	(8,057,877)	8,879,722	110.2
Other	956,448	771,164	185,284	24.0
Total non-operating revenues	38,866,594	23,701,239	15,165,355	64.0
Contributions from developers and others	22,913,046	21,794,174	1,118,872	5.1
Total revenues	176,330,342	153,945,739	22,384,603	14.5
Personnel services	32,914,261	30,560,909	2,353,352	7.7
Purchased resources	23,428,840	22,971,788	457,052	2.0
Contractual services	8,698,465	8,667,969	30,496	0.4
Materials and supplies	4,857,141	4,608,857	248,284	5.4
Other	6,201,990	5,110,948	1,091,042	21.3
Total operating expenses	76,100,697	71,920,471	4,180,226	5.8
Depreciation and amortization	38,356,678	34,715,898	3,640,780	10.5
Interest expense	3,968,946	4,220,935	(251,989)	(6.0)
Payments for UOSA debt service	10,388,529	10,029,748	358,781	3.6
Purchased capacity	668,004	726,420	(58,416)	(8.0)
Total expenses	129,482,854	121,613,472	7,869,382	6.5
Change in net position	46,847,488	32,332,267	14,515,221	44.9
Total net position, beginning of year	1,250,208,877	1,217,876,610	32,332,267	2.7
Total net position, end of year	\$ 1,297,056,365	\$ 1,250,208,877	\$ 46,847,488	3.7

Revenues (In millions)

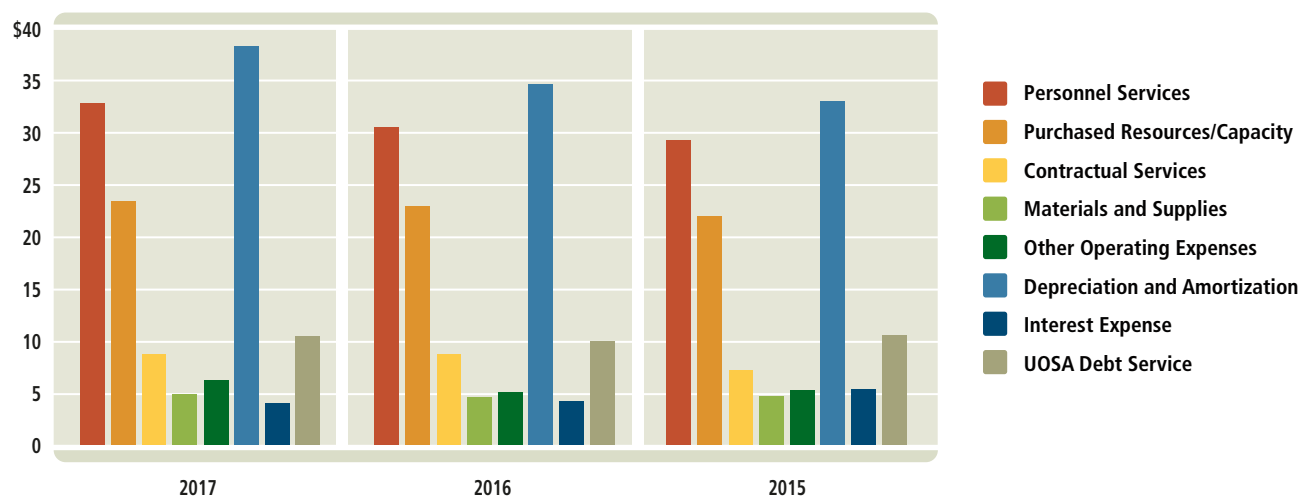


The following table summarizes changes in revenues and expenses between fiscal year 2016 and 2015:

Condensed Statements of Revenues, Expenses and Changes in Net Position

	2016	2015	Increase (Decrease)	% Change
Water and sewer user charges	\$ 105,937,332	\$ 102,061,149	\$ 3,876,183	3.8%
Development charges	1,685,352	1,574,396	110,956	7.0
Other	827,642	805,658	21,984	2.7
Total operating revenues	108,450,326	104,441,203	4,009,123	3.8
Availability fees	26,471,044	33,182,604	(6,711,560)	(20.2)
Investment income	4,516,908	2,857,680	1,659,228	58.1
Equity interest in UOSA	(8,057,877)	(3,807,514)	(4,250,363)	(111.6)
Other	771,164	823,303	(52,139)	(6.3)
Total non-operating revenues	23,701,239	33,056,073	(9,354,834)	(28.3)
Contributions from developers and others	21,794,174	18,685,303	3,108,871	16.6
Total revenues	153,945,739	156,182,579	(2,236,840)	(1.4)
Personnel services	30,560,909	29,314,100	1,246,809	4.3
Purchased resources	22,971,788	21,243,565	1,728,223	8.1
Contractual services	8,667,969	7,157,111	1,510,858	21.1
Materials and supplies	4,608,857	4,715,491	(106,634)	(2.3)
Other	5,110,948	5,317,153	(206,205)	(3.9)
Total operating expenses	71,920,471	67,747,420	4,173,051	6.2
Depreciation and amortization	34,715,898	33,103,295	1,612,603	4.9
Interest expense	4,220,935	5,309,681	(1,088,746)	(20.5)
Payments for UOSA debt service	10,029,748	10,491,397	(461,649)	(4.4)
Purchased capacity	726,420	726,420	—	—
Total expenses	121,613,472	117,378,213	4,235,259	3.6
Change in net position	32,332,267	38,804,366	(6,472,099)	(16.7)
Total net position, beginning of year	1,217,876,610	1,179,072,244	38,804,366	3.3
Total net position, end of year	\$ 1,250,208,877	\$ 1,217,876,610	\$ 32,332,267	2.7

Expenses (In millions)



Operating Revenues

Operating revenues consist of water and sewer user charges, development charges and other operating revenues, which consist of miscellaneous customer fees, such as refuse collection, hydrant meter penalties, returned check fees and lab testing revenue.

2017-2016 Comparison

Operating revenues increased by 5.6%, or \$6.1 million over the prior fiscal year, to \$114.6 million. The increase in operating revenues is predominantly due to a \$6.0 million increase in water and sewer user charges, which is as a result of an adopted rate increase in January 2017, combined with an increase in the customer base and increased consumption as compared to the prior year. The Authority's customer base grew by 1,657 accounts to 90,892, or 1.9% higher than as of the end of fiscal year 2016. In addition, development charges increased roughly \$200,000, due primarily to increased inspection fee revenues during the fiscal year.

2016-2015 Comparison

Operating revenues increased by 3.8%, or \$4.0 million over the prior fiscal year, to \$108.5 million. The increase in operating revenues is predominantly due to a \$3.9 million increase in water and sewer user charges, which is as a result of an adopted rate increase in January 2016, combined with an increase in the customer base and increased consumption as compared to the prior year. The Authority's customer base grew by 1,178 accounts to 89,235, or 1.3% higher than as of the end of fiscal year 2015. In addition, development charges increased roughly \$100,000, due primarily to increased inspection fee revenues during the fiscal year.

Non-Operating Revenues

Non-operating revenues consist of availability fees, investment income and other non-operating revenues, which consist of property rental income, proceeds from the sale of capital assets and other miscellaneous revenues.

2017-2016 Comparison

Non-operating revenues increased by \$15.2 million, or 64.0% in fiscal year 2017 from the prior year. The primary factors impacting the change were a \$10.1 million increase in availability fees and an \$8.9 million increase in the equity interest in UOSA, partially offset by a \$4.0 million decrease in investment income. Availability fees cover the cost of a customer's pro-rata share of capacity and infrastructure. Availability fees are charged in ERUs at the time of certification which authorizes a customer to establish service and physically connect to the Authority's system. Revenue from availability fees is directly related to economic development in the County and increased in fiscal year 2017 as the number of ERUs sold increased by 593 to 2,336. The equity interest in UOSA is a function of UOSA's annual performance and is a formula-based calculation of the Authority's percentage of capacity rights in the joint venture, multiplied by the change in UOSA's net position for the latest audited fiscal year. See Note 4 to the financial statements, Equity in Upper Occoquan Service Authority, for more information. The decrease in investment income resulted from an increase in the unrealized fair value losses on the portfolio as compared to the prior year end valuation, partially offset by an increase in income yields, as existing investment maturities are re-invested at higher rates.

2016-2015 Comparison

Non-operating revenues decreased by \$9.4 million, or 28.3% in fiscal year 2016 from the prior year. The primary factors impacting the change were a \$6.7 million decrease in availability fees, a \$4.3 million decrease in the equity interest in UOSA, partially offset by a \$1.7 million increase in investment income. Availability fees cover the cost of a customer's pro-rata share of capacity and infrastructure. Availability fees are charged in ERUs at the time of certification which authorizes a customer to establish service and physically connect to the Authority's system. Revenue from availability fees is directly related to economic development in the County and decreased in fiscal year 2016 as the number of ERUs sold decreased by 428 to 1,743. The equity interest in UOSA is a function of UOSA's annual performance and is a formula-based calculation of the Authority's percentage of capacity rights in the joint venture, multiplied by the change in UOSA's net position for the latest audited fiscal year. See Note 4 to the financial statements, Equity in Upper Occoquan Service Authority, for more information. The increase in investment income resulted primarily from increases in income yields, as existing investment maturities are re-invested at higher rates, coupled with a slight increase in unrealized fair value gains on the portfolio as compared to the prior year end valuation.

Contributions from Developers and Others

Developer contributions may consist of cash, property, water mains, sanitary sewer lines, pumping stations, fire hydrants, manholes and associated infrastructure received from developers and governmental entities. Fluctuations in the value of contributions from year to year are due to the timing of when developers complete expansion projects and convey the related assets to the Authority.

2017-2016 Comparison

Revenue from developer contributions increased by \$1.1 million, or 5.1%, from fiscal year 2016. Assets deeded to the Authority in fiscal years 2017 and 2016 were approximately \$22.9 million and \$21.8 million, respectively.

2016-2015 Comparison

Revenue from developer contributions increased by \$3.1 million, or 16.6%, from fiscal year 2015. Assets deeded to the Authority in fiscal years 2016 and 2015 were approximately \$21.8 million and \$18.7 million, respectively.

Operating Expenses

Operating expenses consist of personnel services, purchased resources, contractual services, materials and supplies, and other operating expenses, which consist of insurance, training, travel and miscellaneous equipment and uniform expenses.

2017-2016 Comparison

Operating expenses increased \$4.2 million, or 5.8%, from fiscal year 2016. The increase was primarily due to increases in personnel services, purchased resources and other operating expenses. Expenses related to personnel services increased by \$2.4 million, or 7.7%, from fiscal year 2016 primarily due to changes in staffing levels and annual merit increases. Purchased resources increased due to slightly higher wholesale rates as well as increased consumption related to account growth and higher water demand. Other operating expenses increased primarily due to emergency planning and security studies along with normal fluctuations in all other accounts.

2016-2015 Comparison

Operating expenses increased \$4.2 million, or 6.2%, from fiscal year 2015. This increase was primarily due to increases in personnel services, purchased resources and contractual services, offset by normal fluctuations in all other categories. Expenses related to personnel services increased by \$1.2 million or 4.3% from fiscal year 2015 primarily due to changes in staffing levels and annual merit increases. Purchased resources increased primarily due to higher wholesale rates as well as increased consumption related to account growth and higher water demand. Contractual services increased by \$1.5 million or 21.1% over the prior year, as the Authority continues to use consultants and temporary staffing to assist with specific project needs, and saw increases in maintenance and support contract expenses related to new field and IT-related equipment and services.

Non-Operating Expenses

Non-operating expenses consist of interest expense, payments for UOSA debt service and purchased capacity costs. Interest expense is a function of interest accruals on outstanding debt, plus or minus the amortization of bond premiums, discounts, and deferred amounts on refunding. Interest expense related to capital projects is capitalized through substantial completion as part of the total project costs and is reflected in capital assets. Payments for UOSA debt service represent the Authority's share of the annual debt obligations of the joint venture, including both principal and interest. Purchased capacity is the Authority's purchase of rights to transmission main capacity from wholesale providers.

2017-2016 Comparison

Non-operating expenses increased by approximately \$48,000 in fiscal year 2017 as compared to fiscal year 2016. The factors impacting the increase were a \$359,000 increase in payments for UOSA debt service which is based on established amortization schedules related to UOSA debt, partially offset by a \$252,000 reduction in interest expense and a \$58,000 decrease in purchased capacity based on established amortization schedules.

2016-2015 Comparison

Non-operating expenses decreased by approximately \$1.6 million in fiscal year 2016 as compared to fiscal year 2015. The factors impacting the decrease were a \$1.1 million reduction in interest expense due to a bond refunding in 2015, as well as interest rate reductions passed through to the Authority from VRA refundings of debt in the prior year. The Authority also incurred a \$460,000 decrease in payments for UOSA debt service which is based on established amortization schedules related to the issuance of debt by UOSA.

CAPITAL ASSETS AND DEBT ADMINISTRATION

The Authority maintains an investment in a broad range of capital assets, which includes land, buildings, water and sanitary sewer lines, water storage facilities (tanks), water reclamation plants, pumping stations, various machinery and equipment, computers, advance capacity payments and vehicles.

At June 30, 2017, capital assets net of accumulated depreciation and amortization was \$1.02 billion, an increase of \$33.9 million or 3.4% over fiscal year 2016.

The following table summarizes the Authority's capital assets, net of accumulated depreciation and amortization, and the changes therein for the years ended June 30, 2017 and 2016.

Capital Assets, Net of Accumulated Depreciation and Amortization

	2017	2016	Increase (Decrease)	% Change
Lines and improvements	\$ 630,328,275	\$ 619,379,090	\$ 10,949,185	1.8%
Equipment	108,451,452	102,109,973	6,341,479	6.2
Buildings	92,845,436	86,910,581	5,934,855	6.8
Construction in progress	20,343,828	31,842,726	(11,498,898)	(36.1)
Land	5,062,158	4,999,873	62,285	1.2
Vehicles	2,168,369	1,827,988	340,381	18.6
Advance Capacity Payments	157,967,695	136,176,159	21,791,536	16.0
Total Capital Assets	\$1,017,167,213	\$ 983,246,390	\$ 33,920,823	3.4

At June 30, 2016, capital assets net of accumulated depreciation and amortization were \$983.2 million, an increase of \$25.3 million or 2.6% over fiscal year 2015.

The following table summarizes the Authority's capital assets, net of accumulated depreciation and amortization, and the changes therein for the years ended June 30, 2016 and 2015.

Capital Assets, Net of Accumulated Depreciation and Amortization

	2016	2015	Increase (Decrease)	% Change
Lines and improvements	\$ 619,379,090	\$ 593,410,529	\$ 25,968,561	4.4%
Equipment	102,109,973	95,949,446	6,160,527	6.4
Buildings	86,910,581	67,437,836	19,472,745	28.9
Construction in progress	31,842,726	54,593,831	(22,751,105)	(41.7)
Land	4,999,873	4,917,728	82,145	1.7
Vehicles	1,827,988	1,988,652	(160,664)	(8.1)
Advance Capacity Payments	136,176,159	139,687,507	(3,511,348)	(2.5)
Total Capital Assets	\$ 983,246,390	\$ 957,985,529	\$ 25,260,861	2.6

Additional information on the Authority's capital assets can be found in Notes 1(f), Summary of Significant Accounting Policies, and Note 3, Property, Plant and Equipment, to the accompanying basic financial statements.

Capital Assets, Net of Accumulated Depreciation and Amortization

Capital asset activities during fiscal years 2017 and 2016 included the following:

- Construction activities to meet new air emission standards for sludge incineration were completed in fiscal year 2017. The Air Pollution Control improvements to the Fluidized Bed Incinerator at the H.L. Mooney Advanced Water Reclamation Facility (HLM AWRP) state of the art 24 MGD wastewater reclamation facility were implemented.
- Replacement of the second Evergreen Tank was completed in fiscal year 2017.
- Construction of the Balsam Street water main was completed in fiscal year 2017.
- Construction activities to replace 320 feet of water main in Sudley Manor Drive were completed in fiscal year 2017.
- Construction of the Evergreen Well Improvements was completed in fiscal year 2016.

- Design of the Rose Hill Circle water and sewer main replacement were both completed in fiscal year 2016.
- Construction of a new Occoquan Forest sewer pump station (to be located at the existing, soon to be decommissioned wastewater treatment plant site) and a related force main were completed in fiscal year 2016.
- Construction of the Davis Ford Road and Asdee Lane water transmission main and sewer force main were both completed in fiscal year 2016.
- Construction and reactivation of the Colchester gravity sewer system was completed in fiscal year 2016.
- In fiscal year 2017 the Authority purchased an additional 5 MGD of water capacity from Fairfax Water. More information regarding this project can be found in Note 10 (a), Commitments, to the accompanying basic financial statements.
- Capital improvement projects under planning, design and/or construction included the following:
 - Design of replacement of the Heritage Hunt sewer pump station is underway.
 - Design of the Galt Court water main replacement began in fiscal year 2017.
 - Design of the G Street water main replacement and upgrade began in fiscal year 2017.
 - Construction activities to rehabilitate the HLM AWRP Process Water Storage Tank were started in fiscal year 2017.
 - Upgrades at other sewer pump stations include the study and design of Graham Park, Holiday Inn, and Airport sewer pump stations.
 - Replacement of the obsolete SCADA equipment monitoring system is currently underway, with functionality enhancements that allow for increased reliability to customers, automation of existing manual processes, increased security and real-time monitoring, and increased use of smart phone and other enhancements to SCADA controls by field personnel. The project is estimated for completion during fiscal year 2021.
- Growth in recent years throughout the County has dictated the need for additional elevated water storage to balance pressures, enhance fire protection and provide emergency reserves. Additional storage requirements are currently being evaluated. Planning continues for new elevated water storage tanks at Potomac Shores in the eastern area of the County, as well as in the Gainesville and Haymarket service levels in the west.
- The Authority continues to proactively manage its wastewater collection system by funding a multi-year program to evaluate the condition of sewer mains and manholes, and by proactively performing rehabilitation and maintenance on those assets prior to their failure. This approach extends asset life and minimizes capital expenditures as cost-effective, trenchless rehabilitation methods can be used for rehabilitation, as opposed to waiting for asset failure when costly, open-cut construction methods are required. These efforts also reduce infiltration and inflow of rain water from seeping into the wastewater collection system, thereby eliminating unnecessary costs for treatment and additional purchases of wastewater treatment capacity. Rehabilitation has been strategically initiated in key areas such as Flat Branch, with studies of other areas completed and moved to the construction phase. Both the Cow Branch and Bull Run interceptor sewer replacements have been completed, which eliminates infiltration and inflow from these aging and susceptible sewers. Replacement of the Colchester interceptor sewer, serving a large portion of eastern Prince William County, along with the construction of a supplemental sewer pumping station is currently under design with an estimated construction cost of \$13.9 million. Over 9 miles of sewer mains have been recently rehabilitated using cured-in-place pipe, with an additional 42,000 linear feet (approximately 8 miles) scheduled for rehabilitation during fiscal year 2018.
- Residential and commercial development activity continues throughout Prince William County. Cooperative efforts with developers have led to the design and developer-funded construction of major interceptor sewers, sewage pumping stations, water transmission lines and associated infrastructure. In fiscal years 2017 and 2016, developers installed and conveyed to the Authority for ownership and operation approximately 30 miles and 34 miles, respectively, of additional water mains, sanitary sewers, and related infrastructure representing approximately \$22.9 million and \$21.8 million, respectively, in total value.
- In fiscal year 2017, 309 development plans representing 581 residential units and 2.3 million square feet of commercial development were reviewed, and over 35 miles of water and sewer mains were inspected. In fiscal year 2016, 266 development plans representing 966 residential units and 2.7 million square feet of commercial development were reviewed, and over 26 miles of water and sewer mains were inspected.

Long-Term Debt

As of June 30, 2017, the Authority's outstanding long-term debt, net of deferred amounts, was \$137.2 million, compared to \$146.4 million at the end of fiscal year 2016.

Outstanding Long-Term Debt

	2017	2016	(Decrease)	% Change
VRA loans payable	\$ 72,427,732	\$ 78,225,583	\$ (5,797,851)	(7.4)%
Revenue bonds	64,777,622	68,182,133	(3,404,511)	(5.0)
Total long-term debt	\$ 137,205,354	\$ 146,407,716	\$ (9,202,362)	(6.3)

As of June 30, 2016, the Authority's outstanding long-term debt, net of deferred amounts, was \$146.4 million, compared to \$155.1 million at the end of fiscal year 2015.

Outstanding Long-Term Debt

	2016	2015	(Decrease)	% Change
VRA loans payable	\$ 78,225,583	\$ 83,858,628	\$ (5,633,045)	(6.7)%
Revenue bonds	68,182,133	71,242,978	(3,060,845)	(4.3)
Total long-term debt	\$ 146,407,716	\$ 155,101,606	\$ (8,693,890)	(5.6)

VRA Loans

The Authority has four outstanding financing agreements with VRA at June 30, 2017, with the proceeds of each being used to finance prior-year upgrades at the HLM AWRF.

2017-2016 Comparison

As of June 30, 2017, approximately \$72.4 million of long-term debt was outstanding with the VRA. The net decrease in VRA loans of approximately \$5.8 million consisted of scheduled principal payments.

2016-2015 Comparison

As of June 30, 2016, approximately \$78.2 million of long-term debt was outstanding with the VRA. The net decrease in VRA loans of approximately \$5.6 million consisted of scheduled principal payments.

Revenue Bonds

Revenue bonds are issued to fund capital projects or refund older debt in order to reduce the cost of borrowing.

2017-2016 Comparison

As of June 30, 2017, the Authority had approximately \$64.8 million of outstanding revenue bonds, which were issued in 2013 and 2015. The 2015 bonds refunded the 2005 bonds effective July 1, 2015. The \$3.4 million decrease during fiscal year 2017 resulted from regularly scheduled debt service payments and the amortization of related premiums. In June 2017, the Authority made an advance payment from unrestricted funds toward fiscal year 2018 debt service in the amount of \$4.9 million.

2016-2015 Comparison

As of June 30, 2016, the Authority had approximately \$68.2 million of outstanding revenue bonds, which were issued in 2013 and 2015. The 2015 bonds refunded the 2005 bonds effective July 1, 2015. The \$3.1 million decrease during fiscal year 2016 resulted from regularly scheduled debt service payments and the amortization of related premiums. In June 2016, the Authority made an advance payment from unrestricted funds toward fiscal year 2017 debt service in the amount of \$4.85 million.

Compliance

The Authority was in compliance with all bond and loan covenants during fiscal years 2017 and 2016. Detailed information regarding the Authority's long-term debt outstanding is presented in Notes 5, 6, and 7 to the accompanying basic financial statements. Revenue bond coverage calculations are disclosed in Tables 8 and 9 in the Statistical Section of the accompanying basic financial statements.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

The Service Authority's mission is to provide quality customer service and high quality water and water reclamation service in an environmentally responsible manner and at the best value. The Authority's strategic plan supports the mission and is developed with contributions from the Board of Directors, management and staff. Key areas of the strategic plan include customer satisfaction, workforce excellence, financial viability, respected community partnerships, advanced and accessible technology, and agile, optimized and sustainable operations. The Authority's operating and capital budgets are prepared in alignment with the initiatives identified in the strategic plan.

The general economic and operational factors discussed below were considered in the preparation of the Authority's fiscal year 2018 budget:

- The Authority's budget estimated certification of 1,615 new ERUs for the year. This represents a leveling out of growth and is well below the overall average rate since the Authority was created in 1983.
- Revenues are budgeted to increase by \$1.8 million, or 1.4%, with projected growth in accounts at 1.0% and consumption revenues to increase to \$108.2 million or 1.5%. In September 2014, the Authority's Board of Directors adopted a three-year annual rate increase for water and sewer service charges and other fees in response to anticipated rising operating and capital costs. There were no scheduled rate increases for base volumetric charges or availability fees. As a result of the rate increase for water and sewer service charges the typical monthly residential bill increased approximately \$1.10 each year on January 1, with the last scheduled increase effective on January 1, 2017. The next rate study is scheduled for fiscal year 2018.
- Budgeted expenses are projected to increase by 2.8% in fiscal year 2018 as compared to fiscal year 2017, with an ongoing effort toward minimizing costs while maintaining the level of service expected by our customers. Personnel costs are expected to increase approximately \$1.9 million in fiscal year 2018. The budget reflects proposed staffing increases, and includes a provision for performance pay and a likely increase in new positions as well as conversion of part time to full time positions. Increases in other categories are limited and reflect increased costs of operations for newly constructed facilities.
- The Authority's current multi-year CIP program budget includes a maximum estimated cost of \$893.8 million in identified capital projects for fiscal year 2018 and beyond. Each year, the Authority carefully evaluates each project for timeliness and to ensure that adequate resources exist to complete the project. CIP projects will be postponed if the resources to complete a project are not available. For fiscal year 2018, capital spending is budgeted at a maximum estimated cost of \$118.1 million. Major CIP projects scheduled for fiscal year 2018 include improvements and replacements to sewer mains, pumping stations and water lines; and general facility, information technology system and SCADA system improvements.

CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT

The CAFR is designed to provide the reader with a general overview of the Authority's financial position and demonstrate the Authority's accountability for revenues received and expenditures made. Questions concerning information provided in this report or requests for additional financial information should be directed to:

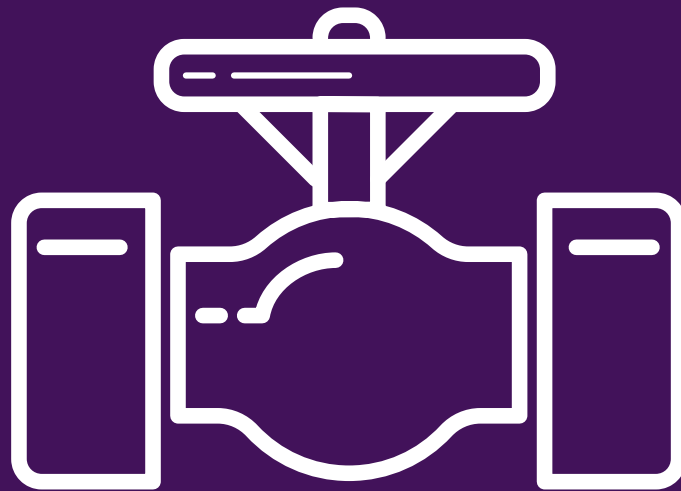
Astrid B. Nelson, CPA
Director of Finance

Prince William County Service Authority
P.O. Box 2266
Woodbridge, VA 22195-2266

Telephone 703-335-7910

E-mail requests may be sent to: anelson@pwcsa.org

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PRINCE WILLIAM COUNTY SERVICE AUTHORITY

STATEMENTS OF NET POSITION JUNE 30, 2017 AND 2016

Assets and Deferred Outflows of Resources	2017	2016
Current assets:		
Cash and cash equivalents (<i>notes 1c and 2</i>)		
Unrestricted	\$ 3,978,997	\$ 2,292,792
Restricted	7,329,797	11,532,012
Investments (<i>notes 1d and 2</i>)		
Unrestricted	120,695,699	98,847,236
Restricted	4,922,851	—
Receivables		
User and development charges (net of allowance for uncollectibles of \$100,000 at June 30, 2017 and 2016)	7,707,124	6,801,308
Unbilled water and sewer service (<i>note 1j</i>)	6,223,622	6,092,454
Interest		
Unrestricted	866,994	855,041
Restricted	29,364	28,246
Other receivables	298,531	188,670
Materials and supplies inventory (<i>note 1e</i>)	2,275,158	2,367,231
Prepaid expenses	379,808	468,354
Total current assets	154,707,945	129,473,344
Non-current assets:		
Investments (<i>notes 1d and 2</i>)		
Unrestricted	207,057,506	230,718,282
Restricted	4,922,229	4,995,213
Property, plant and equipment, net of accumulated depreciation and amortization (<i>notes 1f and 3</i>)	1,017,167,213	983,246,390
Equity in Upper Occoquan Service Authority (<i>notes 1g and 4</i>)	71,816,396	70,994,551
Total non-current assets	1,300,963,344	1,289,954,436
Total assets	1,455,671,289	1,419,427,780
Deferred outflows of resources:		
Deferred charge on refunding (<i>note 5</i>)	2,995,412	3,350,550
Deferred pension outflows (<i>note 8</i>)	4,511,061	3,236,348
Total deferred outflows of resources	7,506,473	6,586,898
Total assets and deferred outflows of resources	\$ 1,463,177,762	\$ 1,426,014,678

See accompanying notes to financial statements.

STATEMENTS OF NET POSITION (CONTINUED)
JUNE 30, 2017 AND 2016

Liabilities, Deferred Inflows of Resources and Net Position	2017	2016
Current liabilities:		
Accounts payable and accrued expenses	\$ 9,537,638	\$ 11,013,479
Virginia Resources Authority (VRA) loans payable (notes 6 and 7)	5,967,618	5,797,851
Customer deposits	3,927,845	3,176,716
Bonds payable (notes 5 and 7)	2,905,000	2,835,000
Retainage payable	72,685	1,390,880
Accrued interest payable		
Bonds payable	1,052,589	1,088,751
VRA loans payable	621,696	672,888
Compensated absences (notes 1h and 7)	623,028	561,977
Unearned revenue	47,697	34,045
Total current liabilities	24,755,796	26,571,587
Long-term liabilities:		
VRA loans payable (net of current portion of \$5,967,618 and \$5,797,851 at June 30, 2017 and 2016, respectively) (notes 6 and 7)	66,460,114	72,427,732
Bonds payable (net of current portion of \$2,905,000 and \$2,835,000 at June 30, 2017 and 2016, respectively) (notes 5 and 7)	61,872,622	65,347,133
Compensated absences (notes 1h and 7)	3,825,001	3,777,492
Net pension liability (note 8)	5,051,677	3,563,178
Other postemployment benefits liability (note 8)	4,156,187	3,542,884
Total long-term liabilities	141,365,601	148,658,419
Total liabilities	166,121,397	175,230,006
Deferred inflows of resources:		
Deferred earnings on pension plan investments	—	575,795
Total deferred inflows of resources	—	575,795
Total liabilities and deferred inflows of resources	166,121,397	175,805,801
Net position:		
Net investment in capital assets	882,957,271	840,189,224
Restricted for:		
Debt service	13,979,672	14,044,234
Other purposes	3,224,569	2,511,237
Unrestricted	396,894,853	393,464,182
Total net position	1,297,056,365	1,250,208,877
Total liabilities, deferred inflows of resources and net position	\$ 1,463,177,762	\$ 1,426,014,678

PRINCE WILLIAM COUNTY SERVICE AUTHORITY

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION YEARS ENDED JUNE 30, 2017 AND 2016

	2017	2016
Operating revenues:		
Water and sewer user charges	\$ 111,896,117	\$ 105,937,332
Development charges	1,907,166	1,685,352
Other	747,419	827,642
Total operating revenues	114,550,702	108,450,326
Operating expenses:		
Personnel services	32,914,261	30,560,909
Purchased resources (notes 1f and 4)	23,428,840	22,971,788
Contractual services	8,698,465	8,667,969
Materials and supplies	4,857,141	4,608,857
Utilities	3,821,231	3,662,359
Other	2,380,759	1,448,589
Total operating expenses	76,100,697	71,920,471
Operating income before depreciation and amortization	38,450,005	36,529,855
Depreciation and amortization (notes 1f and 3)	38,356,678	34,715,898
Total operating income	93,327	1,813,957
Non-operating income (expense):		
Availability fees (note 1k)	36,616,696	26,471,044
Investment income	471,605	4,516,908
Payments for UOSA debt service (note 4)	(10,388,529)	(10,029,748)
Equity interest in UOSA (note 4)	821,845	(8,057,877)
Interest expense	(3,968,946)	(4,220,935)
Purchased capacity (note 10)	(668,004)	(726,420)
Other	956,448	771,164
Total non-operating income, net	23,841,115	8,724,136

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION (CONTINUED)
YEARS ENDED JUNE 30, 2017 AND 2016

	2017	2016
Income before contributions from developers and others	\$ 23,934,442	\$ 10,538,093
Contributions from developers and others (<i>note 11</i>)	22,913,046	21,794,174
Change in net position	46,847,488	32,332,267
Net position, beginning of year	1,250,208,877	1,217,876,610
Net position, end of year	<u>\$ 1,297,056,365</u>	<u>\$ 1,250,208,877</u>

PRINCE WILLIAM COUNTY SERVICE AUTHORITY

STATEMENTS OF CASH FLOWS

YEARS ENDED JUNE 30, 2017 AND 2016

	2017	2016
Cash flows from operating activities:		
Cash received from customers	\$ 113,428,702	\$ 107,594,203
Cash payments to suppliers for goods and services	(42,988,979)	(41,806,983)
Cash payments to employees for services	(32,341,211)	(30,392,923)
Miscellaneous income from other sources	965,336	923,848
Cash from other operating revenues	637,558	873,994
Net cash provided by operating activities	39,701,406	37,192,139
Cash flows from non-capital financing activities:		
Interest paid for UOSA debt service	(5,448,776)	(5,501,426)
Principal paid for UOSA debt service	(4,939,753)	(4,528,322)
Net cash used in non-capital financing activities	(10,388,529)	(10,029,748)
Cash flows from capital and related financing activities:		
Acquisition and construction of capital assets	(52,429,279)	(37,198,386)
Proceeds from sale of property and equipment	132,944	10,277
Interest paid on bonds payable	(2,141,339)	(2,125,081)
Principal paid on bonds payable	(2,835,000)	(2,465,000)
Interest paid on VRA loans	(2,129,333)	(2,294,138)
Principal paid on VRA loans	(5,797,851)	(5,633,045)
Receipt of developer charges	36,616,696	26,471,044
Payments for future capacity	(668,004)	(726,420)
Net cash used in capital and related financing activities	(29,251,166)	(23,960,749)
Cash flows from investing activities:		
Purchase of investment securities	(114,224,186)	(132,365,244)
Interest received on cash and cash equivalents	64,473	11,776
Proceeds from sales and maturities of investments	107,532,475	125,006,880
Interest received from investment securities	4,049,517	3,789,905
Net cash used in investing activities	(2,577,721)	(3,556,683)
Net decrease in cash and cash equivalents	(2,516,010)	(355,041)
Cash and cash equivalents, beginning of year	13,824,804	14,179,845
Cash and cash equivalents, end of year	\$ 11,308,794	\$ 13,824,804

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS (CONTINUED)
YEARS ENDED JUNE 30, 2017 AND 2016

	2017	2016
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$ 93,327	\$ 1,813,957
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization expense	38,356,678	34,715,898
Other non-cash operating expenses	95,092	46,729
Other postemployment benefits expense	613,303	523,171
Miscellaneous income from other sources	965,336	923,848
Adjustment for net pension liability	(362,009)	(879,205)
Change in assets and liabilities:		
(Increase) decrease in water and sewer receivable	(994,542)	122,231
(Increase) in unbilled water and sewer receivable	(131,168)	(405,865)
(Increase) decrease in other receivables	(109,861)	46,352
Decrease (increase) in materials and supplies inventory	92,073	(375,287)
Decrease (increase) in prepaid expenses	88,546	(152,017)
Increase in accounts payable and accrued expenses	134,942	504,230
Increase in compensated absences	108,560	52,944
Increase in customer deposits	751,129	255,153
Total adjustments	39,608,079	35,378,182
Net cash provided by operating activities	\$ 39,701,406	\$ 37,192,139
Supplemental schedule of non-cash investing, capital and financing activities:		
Capital contributions		
Estimated acquisition cost of plant and equipment received	\$ 22,913,046	\$ 21,794,174
Change in fair value of investments		
Increase (decrease) in fair value of investments	\$ 2,397,508	\$ (3,821,204)
Equity interest in earnings of UOSA	\$ 821,845	\$ (8,057,877)
Capital asset additions purchased on account	\$ 3,059,756	\$ 5,709,753

PRINCE WILLIAM COUNTY SERVICE AUTHORITY

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED JUNE 30, 2017 AND 2016

1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Prince William County Service Authority (the Authority) was created by a resolution of the Board of County Supervisors (BOCS) of Prince William County, Virginia (the County) on January 11, 1983. The Authority is chartered by the State Corporation Commission and is an independent public body responsible for providing a comprehensive county-wide water and sewer system, completely within the geographical boundaries of the County. The management of the Authority is vested in a Board of eight members appointed by the County's BOCS. The Authority also maintains an interest in the Upper Occoquan Service Authority (UOSA), a regional joint venture, which is included in the Authority's financial statements under the equity method of accounting, as further discussed in Note 4.

The following is a summary of the Authority's significant accounting policies:

(a) Basis of Presentation and Accounting

The accounting policies of the Authority conform to accounting principles generally accepted in the United States of America as applicable to enterprise funds of governmental units. An enterprise fund is a proprietary type fund used to account for operations that are financed and operated in a manner similar to private business enterprises. The Authority's intent is that the costs of providing goods or services to customers on a continuing basis be financed or recovered primarily through user charges. Periodic determination of revenues earned, expenses incurred, and/or changes in net position is appropriate for capital maintenance, management control and accountability.

The Authority has elected to apply all applicable Governmental Accounting Standards Board (GASB) pronouncements when they become effective, as the GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The Authority follows the accrual basis of accounting. Under this basis of accounting, revenue is recognized when earned and expenses are recorded when incurred. Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Authority. Operating revenues consist primarily of charges for water consumption and wastewater treatment. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing type activities, or result from non-exchange transactions and ancillary services.

When an expense is incurred for purposes in which both restricted and unrestricted net position are available, it is the Authority's policy to first apply restricted resources.

(b) Reporting Entity

To determine the appropriate reporting entity for the Authority, its relationship with the County was considered. Although the members of the Authority's Board of Directors are appointed by the BOCS, the County is not financially accountable for the Authority. In addition, there is no potential for the Authority to provide specific financial benefits to, or impose specific financial burdens on, the County, and the Authority is not fiscally dependent on the County. Accordingly, based on these criteria, the Authority is not included as a component unit in the County's financial statements.

(c) Cash and Cash Equivalents

The Authority considers all highly liquid investments with a maturity of three months or less from date of purchase to be cash equivalents.

(d) Investments

All investments are stated at fair value. Three estimates of fair value are obtained from independent financial sources, with the median value chosen as the stated fair value. Interest income from investments is recorded in the year earned.

(e) *Materials and Supplies Inventory*

Materials and supplies inventory, consisting of items held for consumption, are stated at weighted average cost using the moving average method. In addition, the Authority performs a manual count at the end of the fiscal year of fuel, chemicals and certain field supplies that are not yet used in operations, and values them at cost.

(f) *Property, Plant and Equipment*

The Authority capitalizes all property, plant and equipment with a cost greater than \$5,000 if the asset will have an estimated useful life of five years or more.

Purchased property, plant and equipment are stated at historical cost. Contributed assets received from developers and others are recorded at acquisition cost on the date of donation. The acquisition cost is based on the Authority's estimated cost to construct or purchase similar assets. See Note 11, Contributions from Developers and Others, for additional details on contributed assets.

Property, plant and equipment includes construction in progress, which represents costs associated with the construction of assets that will be used in the Authority's operations when completed. Expenditures for repairs and upgrades which materially add to the value or life of an asset are capitalized. Other maintenance and repair costs are expensed as incurred.

Interest is capitalized on qualifying construction in progress projects until they have reached the point of substantial completion. For those projects financed with tax-exempt debt, the amount of capitalized interest equals the difference between the interest cost associated with the tax-exempt borrowing to finance the project and the interest earned from temporary investment of the debt proceeds. Capitalized interest is amortized using the straight-line method over the useful life of the asset.

Depreciation and amortization for both purchased and contributed assets is recorded as depreciation and amortization expense on a straight-line basis over the following estimated useful lives:

Lines and improvements	50 years
Buildings	35 - 40 years
Equipment	5 - 15 years
Vehicles	5 - 10 years
Meters	15 years

Advance Capacity Payments are capitalized as intangible assets in accordance with the provisions of GASB Statement 51. They are payments made to wholesale water suppliers as part of multi-year capacity agreements, and are amortized over the useful life of such agreements. From their inception, these agreements are amortized over estimated useful lives from 40-50 years.

(g) *Equity in Upper Occoquan Service Authority (UOSA)*

As further explained in Note 4, Equity in UOSA, the Authority participates in a joint venture with three other local jurisdictions. The Authority accounts for its investment in the joint venture using the equity method of accounting.

(h) *Compensated Absences*

Accrued leave balances that are eligible for pay out upon employee separation are presented as a liability in the accompanying Statements of Net Position. The Authority has a traditional leave plan in which employees hired before January 1, 2012 accrue annual leave in varying amounts based on years of service, and sick leave at a rate of four hours bi-weekly. The Authority also has a Paid Time Off (PTO) plan, in which employees hired as of January 1, 2012 and employees who made an irrevocable election to convert to the PTO plan accrue hours in varying amounts based on years of service. At the time of separation from service, employees are compensated for accumulated annual leave up to 300 hours and up to 50% of accumulated sick leave hours based on years of service, or PTO leave up to 450 hours.

(i) *Bond Premiums, Deferred Losses on Refundings and Issuance Costs*

Bond premiums and deferred losses on refundings are deferred and amortized over the life of the bonds using a method which approximates the effective interest method. Deferred losses on refundings, net of amortization, are presented as deferred outflows of resources on the accompanying Statements of Net Position. Deferred outflows of resources is a separate financial statement element which represents the consumption of net position that applies to a future period, and will not be recognized as an outflow of resources (expenditure) until then. Bond premiums, net of amortization, are presented as an increase to the face amount of bonds payable on the accompanying Statements of Net Position. Any balances for these items are presented in the schedules in Note 5, Bonds Payable and Note 7, Long-Term Liabilities. Issuance costs are expensed in the year incurred.

(j) Revenue Recognition

Customers are charged for water consumption and wastewater treatment based on metered water usage. An estimated amount has been recorded for services rendered but not yet billed as of the close of the respective years presented. This unbilled receivable is calculated by prorating the billings sent to customers in July and August of the subsequent fiscal year.

(k) Availability Fees

All developers or customers making new connections to the Authority's water and/or wastewater treatment system are required to pay an availability fee prior to the installation of an Authority meter. Availability fees cover the cost of the customer's pro-rata share of water and/or wastewater treatment capacity as well as water transmission mains, sewer interceptors, storage tanks, reservoirs, pumping stations, infiltration and inflow, and engineering administration. Availability fees are not used to pay for operations, maintenance, repairs or capital improvements to benefit existing customers. The Authority classifies this revenue as non-operating income.

(l) Purchased Resources

Purchased resources consist of expenses relating to the purchase of clean water and the treatment of wastewater from wholesale providers under the terms and conditions of relevant agreements.

(m) Pensions

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 the Authority's Virginia Retirement System (VRS) Plan and the additions to/deductions from the Authority's VRS Plan's net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The Authority currently reports employer pension contributions subsequent to the measurement date and differences between expected and actual experience as deferred outflows of resources on the accompanying Statements of Net Position.

Deferred inflows of resources is a separate financial statement element which represents the acquisition of net position that applies to a future period, and will not be recognized as an inflow of resources (revenue) until then. The Authority currently reports differences between expected and actual experience and the net difference between projected and actual earnings on plan investments in this category on the accompanying Statements of Net Position.

(n) Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities and deferred inflows of resources, the 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 could differ from those estimates.

(o) Reclassifications

No prior year amounts have been reclassified to conform to the current year's presentation in these financial statements.

(p) New Accounting Pronouncements Adopted

GASB Statement 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* (Statement 73), will improve financial reporting by establishing a single framework for the presentation of information about pensions, which will enhance the comparability of pension-related information reported. The Authority has adopted Statement No. 73 for the fiscal year ended June 30, 2017.

GASB Statement No. 82, *Pension Issues* (Statement 82), will improve financial reporting by enhancing consistency in the application of financial reporting requirements to certain pension issues. The Authority has adopted Statement No. 82 for the fiscal year ended June 30, 2017.

GASB Statement No. 85, *Omnibus 2017* (Statement 85), will improve financial reporting by enhancing consistency in the application of accounting and financial reporting requirements related to blending component units, goodwill, fair value measurement and application, and postemployment benefits and improve the usefulness of information to financial statement users. The Authority has adopted Statement No. 85 for the fiscal year ended June 30, 2017.

GASB Statement No. 86, *Certain Debt Extinguishment Issues* (Statement 86), will improve financial reporting by enhancing consistency in the application of financial reporting requirements for debt extinguishments by establishing uniform guidance for derecognizing debt that is defeased in substance and providing consistency in financial reporting of prepaid insurance related to the extinguished debt. The Authority has adopted Statement No. 86 for the fiscal year ended June 30, 2017.

(q) *New Accounting Pronouncements*

Management has elected to disclose upcoming GASB pronouncements that will have an impact on the Authority.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (Statement 75), will improve the usefulness of information by requiring the recognition of the entire Other Postemployment Benefits (OPEB) liability and a more comprehensive measure of OPEB expense. Statement No. 75 will be effective for the Authority beginning with its fiscal year ending June 30, 2018.

GASB Statement No. 87, *Leases* (Statement 87), will enhance comparability of financial statements among governments by requiring lessees and lessors to report leases under a single model, and enhance the usefulness of the financial statements by requiring reporting of certain lease obligations. Statement No. 87 will be effective for the Authority beginning with its fiscal year ending June 30, 2020.

The Authority has not yet determined the effect these GASB Statements will have on its financial statements.

(r) *Subsequent Events*

The Authority has evaluated subsequent events through November 21, 2017, the date on which the financial statements were available to be issued.

2 CASH AND INVESTMENTS

Cash and Cash Equivalents

At June 30, 2017 and 2016, all cash of the Authority is maintained in accounts collateralized in accordance with the Virginia Security for Public Deposits Act (the Act), Section 2.2-4400 et. seq. of the Code of Virginia, or is covered by federal depository insurance.

Under the Act, banks holding public deposits in excess of the amounts insured by the Federal Deposit Insurance Corporation (FDIC) must pledge collateral in the amount of 50% of excess deposits to a collateral pool in the name of the State Treasury Board. Savings and loan institutions are required to collateralize 100% of deposits in excess of FDIC limits. Since the State Treasurer has the ability to make additional assessments of other solvent public depositories on behalf of the collateral pool, any deposit qualifying under the Act is considered entirely insured. 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 and savings and loans.

The Authority also invests in an externally managed investment pool, the Virginia Local Government Investment Pool (LGIP), which is not registered with the Securities and Exchange Commission (SEC). Pursuant to Sec. 2.2-4600 through 2.2-4606 of the Code of Virginia, the Virginia General Assembly created the LGIP and authorized the Treasury Board to administer the LGIP. As permitted by law, the Treasury Board has delegated certain administrative functions to the State Treasurer. The Treasury Board reviews the LGIP investment portfolio on a monthly basis, and investments in the LGIP are stated at amortized cost. The LGIP is managed similar to a money market fund and in compliance with the definition of “2a-7 like pools” in accordance with GASB Statement No. 31 and effective in fiscal year 2016 will be managed to meet the portfolio maturity, quality, diversification and liquidity requirements set forth in GASB Statement No. 79.

Unrestricted cash and cash equivalents consist of bank deposits, petty cash funds, LGIP investments and other money market fund investments. Restricted cash and cash equivalents consist of customer deposits, employee withholdings for benefit programs, escrows and retainage held on contracts, and money market funds held by a Trustee for debt service.

As of June 30, 2017 and 2016, the Authority had the following cash and cash equivalents:

	2017	2016
Unrestricted Cash and Cash Equivalents		
Cash	\$ (2,882,616)	\$ 2,234,423
Investments classified as cash equivalents	6,861,613	58,369
Total unrestricted cash and cash equivalents	3,978,997	2,292,792
Restricted Cash and Cash Equivalents		
Money market funds held by trustee	4,105,228	9,020,775
Customer deposits	3,091,964	2,437,940
Other funds	132,605	73,297
Total restricted cash and cash equivalents	7,329,797	11,532,012
Total cash and cash equivalents	\$ 11,308,794	\$ 13,824,804

The negative unrestricted cash balance reflected in the table as of June 30, 2017 is due to excess cash being invested in the Authority's higher yielding LGIP account as of June 30, 2017.

Investments

The Code of Virginia Sec. 2.2-4501 et seq. authorizes the Authority to invest in obligations of the United States or agencies thereof; obligations of the Commonwealth of Virginia and political subdivisions thereof; obligations of other states and their political subdivisions; obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, and the African Development Bank; "prime quality" commercial paper; negotiable certificates of deposits, bank notes, and corporate bonds rated AA or better by Standard & Poor's Rating Services (S&P), and Aa or better by Moody's Investors Services, Inc., and a maturity of no more than five years; bankers' acceptances; overnight term and open repurchase agreements; money market mutual funds; and the LGIP. The Authority's investment policy follows state law except where the Authority further limits allowable investments by excluding certain treasury strips and the International, Asian, and African Development Banks. Additionally, the investment policy establishes upper limits on the percentage of the total portfolio that may be invested in certain securities.

The Authority's investments are subject to interest rate, credit, concentration of credit, and custodial credit risk as described herein.

Interest rate risk: Interest rate risk is the risk the fair value of the securities in the portfolio will decline due to rising interest rates. As a means of limiting this exposure, the Authority's investment guidelines restrict average duration to 24 months and the maturity of any single investment to five years. Interest rate risk is also contained by avoiding mortgage-backed and callable securities. The risk of loss of fair value from rising interest rates is greater for those types of securities because the expected maturity of such securities increase as rates rise, compounding the impact on fair value. By comparison, the average maturity terms of US Treasury notes, non-callable US Agency securities and the LGIP are generally not affected by periods of rising interest rates.

The Authority's investments with the LGIP are included in the accompanying Statements of Net Position as cash and cash equivalents. At June 30, 2017, the average maturity of the underlying LGIP investments was 47 days, or .13 years.

As of June 30, 2017 and 2016, the Authority had the following investments and maturities:

Investment Type	2017		2016	
	Fair Value	Weighted Average Maturity (Years)	Fair Value	Weighted Average Maturity (Years)
Unrestricted investments				
US Treasuries	\$ 177,583,444	1.64	\$ 166,969,136	1.68
US Agencies	129,509,231	1.32	141,193,248	1.71
Virginia State and Local	13,899,977	1.34	20,657,180	1.12
Commercial Paper	6,264,675	0.42	—	—
Certificates of Deposit	495,878	0.83	745,954	1.42
Total unrestricted investments	327,753,205		329,565,518	
Restricted investments				
US Treasuries	9,845,080	0.94	4,995,213	3.09
Total restricted investments	9,845,080		4,995,213	
Total investments	\$ 337,598,285	1.46	\$ 334,560,731	1.68

Credit risk: Credit risk is the risk of loss due to the failure of the security issuer or backer to repay its obligations, and may also apply where there is loss of fair value of the investment due to a deterioration of an issuer's credit rating. The Authority's Investment Policy and Guidelines seek to diversify the Authority's portfolio by limiting the types of investments that can be purchased and the percentage of the portfolio that may be invested in any one type of instrument.

As of June 30, 2017 and 2016, the Authority's investments were rated as follows:

Investment Type	S&P Rating	Moody's Rating	Credit Exposure as a % of Total Investments	
			2017	2016
US Treasuries*	AA+	Aaa	53.8%	50.2%
US Agencies	AA+	Aaa	37.2	41.2
Virginia State and Local**	AAA/AA+	Aa/Aaa/Aa1/Aa2	4.0	6.0
Mutual Funds***	AAAm	Aaa-mf	1.2	2.6
LGIP***	AAAm	N/A	2.0	0.0
Commercial Paper	P1	A1	1.8	—
Total Investments			100.0%	100.0%

Certificates of deposits as of June 30, 2017 and 2016 are all FDIC insured and accordingly are not reflected in the total above.

* Backed by the full faith and credit of the US government.

** Ratings vary by security.

*** These investments are reflected on the accompanying financial statements as cash equivalents.

Concentration of credit risk: Concentration of credit risk is the risk of loss attributed to the magnitude of investments held from a single issuer. The Authority's guidelines place limits on the amounts the Authority may invest in certain issuers, however, the Authority seeks to maintain at least 15% of the portfolio in US Treasuries and the balance of its investments in US Agency securities, so that no single agency dominates the investment portfolio.

The Authority's investment portfolio as of June 30, 2017 and 2016 is concentrated in securities issued by the US Treasury, the Federal Home Loan Bank (FHLB) and the Federal Farm Credit Bank (FFCB). The obligations of each of these issuers comprise more than 5% of the Authority's total investments.

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the 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. All of the Authority's investments are Level 1 inputs.

The table below details the fair value and percent of total investments for each issuer representing 5% or more of the Authority's total investments as of June 30, 2017 and 2016:

Issuers Over 5% of Total Investments (Restricted & Unrestricted)	Fair Value of Investments (Level 1)		% of Total Investments	
	2017	2016	2017	2016
US Treasuries	\$ 187,428,524	\$ 171,964,349	55.5%	51.4%
FHLB	88,819,385	90,511,587	26.3	27.1
FFCB	24,903,409	32,695,841	7.4	9.8
Virginia State & Local	13,899,977	20,657,180	4.1	6.2
Others below 5%	22,546,990	18,731,774	6.7	5.5
Total Investments	\$ 337,598,285	\$ 334,560,731	100.0%	100.0%

Custodial credit risk: Custodial credit risk is the risk that the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside custodial party. All of the securities purchased by the Authority are held in safekeeping by a third party custodial bank or institution and are insured in the Authority's name, and therefore, the Authority is not exposed to custodial credit risk.

3 PROPERTY, PLANT AND EQUIPMENT

Changes in property, plant and equipment are as follows for the year ended June 30, 2017:

	Balance June 30, 2016	Additions	Reductions	Transfers/Other Adjustments	Balance June 30, 2017
Capital assets not being depreciated/amortized:					
Construction in progress	\$ 31,842,726	\$ 19,097,500	\$ (1,116,300)	\$ (29,480,098)	\$ 20,343,828
Land	4,999,873	62,285	—	—	5,062,158
Total capital assets not being depreciated/amortized	36,842,599	19,159,785	(1,116,300)	(29,480,098)	25,405,986
Other capital assets:					
Lines and improvements	831,165,873	19,682,810	—	8,091,684	858,940,367
Equipment	222,186,850	5,101,282	(454,877)	15,926,466	242,759,721
Buildings	137,087,933	4,309,307	—	5,461,948	146,859,188
Vehicles	7,641,658	840,007	(484,889)	—	7,996,776
Advance capacity payments	174,669,285	26,816,754	—	—	201,486,039
Total other capital assets	1,372,751,599	56,750,160	(939,766)	29,480,098	1,458,042,091
Total capital assets before accumulated depreciation and amortization	1,409,594,198	75,909,945	(2,056,066)	—	1,483,448,077
Depreciation/amortization for:					
Lines and improvements	(211,786,783)	(16,818,778)	—	(6,531)	(228,612,092)
Equipment	(120,076,877)	(12,913,537)	398,019	(1,715,874)	(134,308,269)
Buildings	(50,177,352)	(3,099,518)	—	(736,882)	(54,013,752)
Vehicles	(5,813,670)	(499,627)	484,890	—	(5,828,407)
Advance capacity payments	(38,493,126)	(5,025,218)	—	—	(43,518,344)
Total accumulated depreciation and amortization	(426,347,808)	(38,356,678)	882,909	(2,459,287)	(466,280,864)
Total property, plant and equipment, net of accumulated depreciation and amortization	\$ 983,246,390	\$ 37,553,267	\$ (1,173,157)	\$ (2,459,287)	\$ 1,017,167,213

Changes in property, plant and equipment are as follows for the year ended June 30, 2016:

	Balance June 30, 2015	Additions	Reductions	Transfers	Balance June 30, 2016
Capital assets not being depreciated/amortized:					
Construction in progress	\$ 54,593,831	\$ 36,473,403	\$ (296,162)	\$ (58,928,346)	\$ 31,842,726
Land	4,917,729	36,191	—	45,953	4,999,873
Total capital assets not being depreciated/amortized	59,511,560	36,509,594	(296,162)	(58,882,393)	36,842,599
Other capital assets:					
Lines and improvements	789,261,226	21,501,786	—	20,402,861	831,165,873
Equipment	205,525,153	1,539,687	(645,172)	15,767,182	222,186,850
Buildings	115,332,845	423,571	(635,881)	21,967,398	137,087,933
Vehicles	7,448,077	360,340	(166,759)	—	7,641,658
Advance capacity payments	173,916,829	7,504	—	744,952	174,669,285
Total other capital assets	1,291,484,130	23,832,888	(1,447,812)	58,882,393	1,372,751,599
Total capital assets before accumulated depreciation and amortization	1,350,995,690	60,342,482	(1,743,974)	—	1,409,594,198
Depreciation/amortization for:					
Lines and improvements	(195,850,697)	(15,936,086)	—	—	(211,786,783)
Equipment	(109,575,708)	(11,116,452)	615,283	—	(120,076,877)
Buildings	(47,895,009)	(2,889,273)	606,930	—	(50,177,352)
Vehicles	(5,459,425)	(510,283)	156,038	—	(5,813,670)
Advance capacity payments	(34,229,322)	(4,263,804)	—	—	(38,493,126)
Total accumulated depreciation and amortization	(393,010,161)	(34,715,898)	1,378,251	—	(426,347,808)
Total property, plant and equipment, net of accumulated depreciation and amortization	\$ 957,985,529	\$ 25,626,584	\$ (365,723)	\$ —	\$ 983,246,390

4 EQUITY IN UPPER OCCOQUAN SERVICE AUTHORITY

UOSA was created under the provisions of the Virginia Water and Sewer Authorities Act to be the single regional entity to construct, finance and operate the regional sewage treatment facility mandated by the Occoquan policy for the upper portion of the Occoquan Watershed. UOSA is a joint venture formed on March 3, 1971 by a concurrent resolution of the governing bodies of Fairfax and Prince William Counties and the Cities of Manassas and Manassas Park. The Prince William County BOCS assigned all rights and obligations of its allocated capacity to the Authority in 1983.

During fiscal years 1989, 1995, and 2005, UOSA's capacity was increased and each jurisdiction's percentage was adjusted accordingly. The Authority's equity interest in UOSA reported on the accompanying Statements of Net Position as of June 30, 2017 and 2016 is calculated based on its percentage share of capacity in effect for UOSA's fiscal years ended June 30, 2016 and 2015, respectively. The equity interest in UOSA is calculated one year in arrears due to the timing of UOSA's published financial statements.

In January 2008, and again in March 2011, the Authority made purchases totaling an additional 4 MGD of existing plant capacity at UOSA from Fairfax County, at a combined cost of \$73,517,586 for both transactions. With these purchases, the Authority's effective share of the total Permitted UOSA Plant Capacity of 54 MGD, as defined in the transaction agreements, is 36.66%, or approximately 19.8 MGD.

For UOSA's fiscal years ended June 30, 2017, 2016 and 2015, capacity allocation by jurisdiction was as follows:

Jurisdiction	Percentage of Total Allocated Capacity		
	2017	2016	2015
Fairfax County	43.70%	43.70%	43.70%
Prince William County	36.66	36.66	36.66
City of Manassas	14.24	14.24	14.24
City of Manassas Park	5.40	5.40	5.40
Total	100.00%	100.00%	100.00%

The governing body of UOSA is an eight member Board of Directors consisting of two members from each participating jurisdiction appointed to four-year terms. The UOSA Board of Directors adopts an annual operating budget based on projected wastewater flows. The Authority's General Manager currently serves as a member of the UOSA Board of Directors.

Summary financial information of UOSA for the years ended June 30, 2016 and 2015 (the dates of the most recent available audited financial statements) are presented below. Complete financial statements may be obtained from UOSA at Upper Occoquan Service Authority, 14631 Compton Road, Centreville, Virginia 20121-2506, or from their website at www.uosa.org.

	2016		2015	
	UOSA	Authority's Share	UOSA	Authority's Share
Total assets	\$ 614,454,987		\$ 600,486,380	
Deferred outflows of resources	24,335,773		23,659,227	
Total assets and deferred outflows of resources	638,790,760		624,145,607	
Total liabilities	560,475,900		552,565,390	
Deferred inflows of resources	1,165,632		2,660,211	
Total liabilities and deferred inflows of resources	561,641,532		555,225,601	
Total net position	\$ 77,149,228	\$ 22,500,420	\$ 68,920,006	\$ 19,483,480
Total revenues	\$ 33,873,929		\$ 32,299,640	
Total expenses	(56,831,798)		(56,597,115)	
Capital contributions	31,187,091		16,102,978	
Cumulative effect of change in accounting principle	—		(8,105,979)	
Change in net position	\$ 8,229,222	\$ 3,016,940	\$ (16,300,476)	\$ (5,975,966)
Prepaid capacity amortization		(2,195,095)		(2,081,911)
Equity interest in UOSA		\$ 821,845		\$ (8,057,877)

UOSA's annual debt service for current and future years is funded by each of the participating jurisdictions based on their allocated capacity with certain modifications.

As of June 30, 2017, the Authority's future debt service requirements for principal and interest to UOSA, net of UOSA accumulated debt service reserves, are as follows:

Years Ending June 30,	Total Payment
2018	\$ 10,828,127
2019	11,047,970
2020	11,046,657
2021	10,905,746
2022	11,113,066
2023-2027	56,107,060
2028-2032	45,153,585
2033-2037	35,957,686
2038-2042	24,281,846
2043-2047	3,437,065
Total	\$ 219,878,808

The Authority made payments to UOSA during fiscal years 2017 and 2016 of approximately \$12.4 million and \$12.5 million, respectively, to pay its share of operation and maintenance expenses and reserve maintenance charges, which are allocated to the participating jurisdictions based on metered wastewater flows each year. The Authority records these payments for services from UOSA in the accompanying financial statements as purchased resources expense. The Authority also made payments to UOSA during fiscal years 2017 and 2016 of approximately \$10.4 million and \$10.0 million, respectively, to fund its share of UOSA's debt service. The Authority's share of debt service payments are recorded as non-operating expenses in the accompanying financial statements. In fiscal years 2017 and 2016, the Authority's 36.66% share of UOSA's change in net position was \$3,016,940 and \$(5,975,966), respectively. The Authority's equity interest in UOSA, which includes current year amortization on additional UOSA capacity purchases from Fairfax County, is reflected in the accompanying Statements of Net Position as a component of unrestricted net position.

5 BONDS PAYABLE

Bonds payable as of June 30, 2017 consist of the following:

(a) Series 2013 water and sewer system refunding revenue bonds were issued to defease \$44,140,000 of the 2005 Series bonds. At June 30, 2017, \$42,330,000 remained outstanding. Interest rates range from 3.0% to 5.0% annually on the remaining maturity dates from July 1, 2017 to July 1, 2035.

(b) Series 2015 water and sewer system refunding revenue bonds were issued in April 2015 to refund the Series 2005 bonds. At June 30, 2017, \$19,525,000 remained outstanding. The interest rate on the bonds is 2.11% with maturity dates from July 1, 2017 to July 1, 2029.

For each of the outstanding bond series, interest is payable semi-annually on January 1 and July 1, and principal payments are made annually on July 1. In June 2017 and 2016, advance payments in the amount of \$4,900,000 and \$4,850,000, respectively, were made to the Trustee toward debt service for each of the subsequent fiscal years.

During fiscal years 2017 and 2016, the Authority continued to be in compliance with all covenants associated with the outstanding bond indentures. See Statistical Section Tables 7, 8 and 9, on pages 69 and 70 for debt compliance information. For the year ended June 30, 2017, pledged revenues totaled approximately \$152.6 million, and the required debt service payments represented 5.2% of the pledged revenues. The pledge of revenues remains in effect until the debt service requirements are satisfied in fiscal year 2036.

As of June 30, 2017, total future debt service requirements for bond principal and interest are approximately \$80.0 million, as follows:

Years ending June 30,	2013 Series		2015 Series		Total	
	Principal	Interest	Principal	Interest	Principal	Interest
2018	\$ 1,455,000	\$ 1,635,000	\$ 1,450,000	\$ 381,383	\$ 2,905,000	\$ 2,016,383
2019	1,510,000	1,559,500	1,480,000	350,155	2,990,000	1,909,655
2020	1,585,000	1,480,250	1,520,000	318,083	3,105,000	1,798,333
2021	1,665,000	1,397,000	1,550,000	285,378	3,215,000	1,682,378
2022	1,745,000	1,309,750	1,585,000	251,934	3,330,000	1,561,684
2023-2027	10,130,000	5,101,550	7,655,000	758,440	17,785,000	5,859,990
2028-2032	12,550,000	2,688,700	4,285,000	91,571	16,835,000	2,780,271
2033-2036	11,690,000	539,250	—	—	11,690,000	539,250
Total	\$ 42,330,000	\$ 15,711,000	\$ 19,525,000	\$ 2,436,944	\$ 61,855,000	\$ 18,147,944

Debt service requirements for future principal payments are presented in the accompanying Statements of Net Position, inclusive of the following amounts:

	June 30, 2017	June 30, 2016
Unamortized Bond Premiums	\$ 2,922,622	\$ 3,492,133

Deferred losses on refunding are presented in the accompanying Statements of Net Position, as follows:

	June 30, 2017	June 30, 2016
Deferred Amounts on 2015 Refunding	\$ 79,519	\$ 92,963
Deferred Amounts on 2013 Refunding	2,915,893	3,257,587
Total	\$ 2,995,412	\$ 3,350,550

6 VIRGINIA RESOURCES AUTHORITY LOANS PAYABLE

VRA loans were issued under the Virginia Water Facilities Revolving Fund (VWFRF) program and used for the purpose of construction for expansion and improvements at the HLM AWRF. Each loan is secured by a pledge of revenues from the Authority's water and wastewater system, with interest and principal payable on a semi-annual basis. All balances owed to VRA under the financing agreements are deemed to be parity indebtedness under the terms of the Local Master Indenture.

As of June 30, 2017, VRA loans payable consist of the following:

Loans to finance improvements for biological nutrient removal and related expenses:

- (a) December 2000 loan - The outstanding loan balance at June 30, 2017 was \$6,295,250, with interest payable at 3.85% per annum, and principal due through March 2022.
- (b) June 2004 loan - The outstanding loan balance at June 30, 2017 was \$5,916,082, with interest payable at 3.10% per annum, and principal due through June 2025.

Loans to finance the expansion and upgrade of the HLM AWRF:

- (c) June 2007 loan - The outstanding loan balance at June 30, 2017 was \$30,506,728, with interest payable at 2.52% (reduced from 2.77% effective September 1, 2014) per annum, and principal due through March 2029.
- (d) June 2009 loan - The outstanding loan balance at June 30, 2017 was \$29,709,672, with interest payable at 2.72% (reduced from 3.55% effective September 1, 2014) per annum, and principal due through March 2030.

As of June 30, 2017, total future VRA debt service requirements for principal and interest are approximately \$84.7 million, as follows:

Years ending June 30,	2000 and 2004 Loans		2007 Loan		2009 Loan		Total	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2018	\$ 1,827,279	\$ 409,567	\$ 2,206,864	\$ 754,953	\$ 1,933,475	\$ 795,044	\$ 5,967,618	\$ 1,959,564
2019	1,893,253	343,594	2,262,828	698,990	1,986,423	742,096	6,142,504	1,784,680
2020	1,961,632	275,213	2,320,210	641,608	2,040,822	687,698	6,322,664	1,604,519
2021	2,032,507	204,338	2,379,048	582,770	2,096,709	631,810	6,508,264	1,418,918
2022	2,105,968	130,877	2,439,378	522,440	2,154,128	574,392	6,699,474	1,227,709
2023-2027	2,390,693	131,356	13,156,759	1,652,330	11,688,479	1,954,119	27,235,931	3,737,805
2028-2030	—	—	5,741,641	181,994	7,809,636	375,923	13,551,277	557,917
Total	\$ 12,211,332	\$ 1,494,945	\$ 30,506,728	\$ 5,035,085	\$ 29,709,672	\$ 5,761,082	\$ 72,427,732	\$ 12,291,112

7 LONG-TERM LIABILITIES

Long-term liabilities activity for the years ended June 30, 2017 and 2016 were as follows:

	Balance June 30, 2015	FY 2016 Additions	FY 2016 Reductions	Balance June 30, 2016	FY 2017 Additions	FY 2017 Reductions	Balance June 30, 2017	Due Within One Year
Bonds Payable:								
Revenue Bonds	\$ 67,155,000	\$ –	\$ (2,465,000)	\$ 64,690,000	\$ –	\$ (2,835,000)	\$ 61,855,000	\$ 2,905,000
Deferred Amounts:								
Issuance Premiums	4,087,978	–	(595,845)	3,492,133	–	(569,511)	2,922,622	–
Total Bonds Payable:	71,242,978	–	(3,060,845)	68,182,133	–	(3,404,511)	64,777,622	2,905,000
VRA Loans Payable	83,858,628	–	(5,633,045)	78,225,583	–	(5,797,851)	72,427,732	5,967,618
Compensated Absences	4,286,524	553,393	(500,448)	4,339,469	564,317	(455,757)	4,448,029	623,028
Other Post Employment Benefits Liability	3,019,713	1,216,605	(693,434)	3,542,884	1,268,228	(654,925)	4,156,187	–
Net Pension Liability	2,477,998	4,192,239	(3,107,059)	3,563,178	4,699,887	(3,211,388)	5,051,677	–
Total Long-term Liabilities	\$ 164,885,841	\$ 5,962,237	\$ (12,994,831)	\$ 157,853,247	\$ 6,532,432	\$ (13,524,432)	\$ 150,861,247	\$ 9,495,646

From time to time, the Authority may incur debt through bond issuances via the capital markets, and financing agreements (loans) with VRA. The proceeds of all borrowings from these sources are used to finance the acquisition or development of capital assets, or to retire prior debt related to capital assets. Accordingly, all amounts reported as Bonds Payable and VRA Loans Payable (see Notes 5 and 6) are included in the calculation of Net investment in capital assets on the accompanying Statements of Net Position.

8 PENSION PLAN AND OTHER POSTEMPLOYMENT BENEFITS

Virginia Retirement System (VRS)

(a) Plan Description

The Authority contributes to an agent multiple-employer pension plan administered by the Virginia Retirement System, which acts as a common investment and administrative agent for political subdivisions in the Commonwealth of Virginia.

All full-time, permanent employees of the Authority are automatically covered by the VRS Retirement Plan upon employment. Employees earn one month of service credit for each month they are employed and for which they and the Authority pay contributions to VRS. Employees 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 Hybrid. The specific information for each plan and the eligibility for covered groups within each plan are set out below:

Plan 1

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 VRS Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013.

Hybrid Opt-In Election – Non-hazardous duty covered plan members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan and had prior service under Plan 1 or Plan 2 were not eligible to elect the Hybrid Retirement Plan and must remain as Plan 1 or Plan 2 members or select the optional retirement plan.

Retirement Contributions – Member contributions are tax-deferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.

Creditable Service – Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. When buying service, members must purchase their most recent period of service first. Members also may be eligible to purchase periods of leave without pay.

Vesting – Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Members must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions they make.

Calculating the Benefit – The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. It is one of the benefit payout options available to a member at retirement. An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.

Average Final Compensation – A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.

Service Retirement Multiplier – The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.7%.

Normal Retirement Age – Age 65.

Earliest Unreduced Retirement Eligibility – Members who are not in hazardous duty positions are eligible for an unreduced retirement benefit at age 65 with at least five years of creditable service or at age 50 with at least 30 years of creditable service.

Earliest Reduced Retirement Eligibility – Members may retire with a reduced benefit as early as age 55 with at least five years of creditable service or age 50 with at least 10 years of creditable service.

Cost-of-Living Adjustment (COLA) in Retirement – The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%.

For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date. For members who retire with a reduced benefit and who have less than 20 years of creditable service, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date.

Certain exceptions to COLA effective dates described above are effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:

- The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.
- The member retires on disability.
- The member retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP).
- The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program.
- The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.

Disability Coverage – Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted. VSDP members are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.

Plan 2

Plan 2 is the same as Plan 1 except for the following:

Employees are eligible for Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.

Average Final Compensation – A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.

Service Retirement Multiplier – For non-hazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013.

Normal Retirement Age – Normal Social Security retirement age.

Earliest Unreduced Retirement Eligibility – Members who are not in hazardous duty positions are eligible for an unreduced retirement benefit when they reach normal Social Security retirement age and have at least five years of creditable service or when their age and service equal 90.

Earliest Reduced Retirement Eligibility – Members may retire with a reduced benefit as early as age 60 with at least five years of creditable service.

Cost-of-Living Adjustment (COLA) in Retirement – The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%.

Disability Coverage – Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased or granted. VSDP members are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.

Hybrid Retirement Plan

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.

- The defined benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.
- The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions.
- In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.

Retirement Contributions – A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer 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.

Creditable Service

Defined Benefit Component: Under the defined benefit component of the plan, creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted.

Defined Contributions Component: Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.

Vesting

Defined Benefit Component: Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years of creditable service. Plan 1 or Plan 2 members with at least five years of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.

Defined Contributions Component: Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan. Members are always 100% vested in the contributions they make. Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service.

- After two years, a member is 50% vested and may withdraw 50% of employer contributions.
- After three years, a member is 75% vested and may withdraw 75% of employer contributions.
- After four or more years, a member is 100% vested and may withdraw 100% of employer contributions.

Distribution is not required by law until age 70½.

Calculating the Benefit

Defined Contribution Component: The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.

Average Final Compensation – Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.

Service Retirement Multiplier – The retirement multiplier is 1.0%. For members that opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

Normal Retirement Age

Defined Benefit Component: Same as Plan 2.

Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Earliest Unreduced Retirement Eligibility

Defined Benefit Component: Members are eligible for an unreduced retirement benefit when they reach normal Social Security retirement age and have at least five years of creditable service or when their age and service equal 90.

Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Earliest Reduced Retirement Eligibility

Defined Benefit Component: Members may retire with a reduced benefit as early as age 60 with at least five years of creditable service.

Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Cost-of-Living Adjustment (COLA) in Retirement

Defined Benefit Component: Same as Plan 2.

Defined Contribution Component: Not applicable.

Disability Coverage – Eligible employees (including Plan 1 and Plan 2 opt-ins) participate in an employer-paid program.

Employees Covered by Benefit Terms

As of the June 30, 2015 actuarial valuation, the following employees were covered by the benefit terms of the VRS Retirement Plan:

	Number
Active members	274
Inactive members or their beneficiaries currently receiving benefits	93
Inactive members:	
Vested	18
Non-vested	38
Active elsewhere in VRS	13
Total inactive members	69
Total covered employees	436

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 annual base compensation toward their retirement. Through June 30, 2012, the Authority had assumed this 5% member contribution for its Plan 1 employees, both before and after the October 1, 2004 employer status change. In June 2010, the Authority's Board adopted a resolution to pay the full 5% member contribution for Plan 2 employees effective July 1, 2010. As the result of Virginia State legislative changes in 2012, VRS participating employers were required to begin withholding the 5% member contribution from employees, and give a corresponding increase in base salary, to be implemented at least 1% annually over five years. The Authority's Board adopted resolutions to implement the withholding and related salary increases at 1% effective July 1, 2012 and the remaining 4% effective July 1, 2013.

The Authority's contractually required contribution rate for fiscal year 2017 was 10.5% of covered employee compensation, based on an actuarial valuation as of June 30, 2015. This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by an employee during the year, with an additional amount to finance any unfunded accrued liability. The total of employer and employee contributions to VRS were approximately \$3.3 million and \$3.2 million, respectively, for each of the years ended June 30, 2017 and June 30, 2016.

(b) Net Pension Liability

The Authority's net pension liability (NPL) was measured as of June 30, 2016. The total pension liability (TPL) used to calculate the NPL was determined by an actuarial valuation performed as of June 30, 2015, using updated actuarial assumptions applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2016.

Actuarial Assumptions

The Authority's TPL was based on the following assumptions:

Actuarial method	Entry Age Normal Actuarial Cost
Inflation	2.5%
Salary increases, including inflation	3.5% - 5.35%
Investment rate of return	7%, net of plan investment expense, including inflation *

* Administrative expenses as a percent of the fair value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of 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 Combined Mortality Table Projected with Scale AA to 2020 with males set forward 1 year.
• Post-disablement	RP-2000 Disabled Life Mortality Table with males set back 3 years and no provision for future mortality improvement.

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

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

Long-Term Expected Rate of Return

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

Asset Class (Strategy)	Target Allocation	Long-Term Expected Real Rate of Return	Weighted Average Long-Term Expected Rate of Return
U.S. Equity	19.50%	6.46%	1.26%
Developed Non-US 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	100.00%		5.83
Inflation			2.50
Expected arithmetic nominal return*			8.33%

* 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 return 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 TPL was 7%. The projection of cash flows used to determine the discount rate assumed that employee 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 employer rate contributed by the Authority 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 plan's fiduciary net position is 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 TPL.

(c) Changes in the Net Pension Liability

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance at June 30, 2015	\$ 31,666,303	\$ 28,103,125	\$ 3,563,178
Changes for the Year:			
Service cost	2,355,421	—	2,355,421
Interest	2,177,586	—	2,177,586
Difference between expected and actual experience	728,798	—	728,798
Contributions - employer	—	2,179,687	(2,179,687)
Contributions - employee	—	1,031,701	(1,031,701)
Net investment income	—	578,136	(578,136)
Benefit payments, including refunds of employee contributions	(1,115,876)	(1,115,876)	—
Administrative expense	—	(15,995)	15,995
Other changes	—	(223)	223
Net changes	4,145,929	2,657,430	1,488,499
Balance at June 30, 2016	\$ 35,812,232	\$ 30,760,555	\$ 5,051,677

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

The following presents the Authority's NPL, using the discount rate of 7%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6%) or one percentage point higher (8%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability	\$ 10,480,162	\$ 5,051,677	\$ 593,789

(d) Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2017, the Authority recognized pension expense of \$1,881,178. The Authority also reported deferred outflows of resources from the following sources:

	Deferred Outflows of Resources
Differences between expected and actual experience	\$ 1,442,403
Net difference between projected and actual earnings on plan investments	825,471
Employer contributions subsequent to the measurement date *	2,243,187
Total	\$ 4,511,061

* Deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the NPL in the year ending June 30, 2018.

Amounts reported as deferred outflows of resources related to pensions will be recognized in pension expense as follows:

Years Ending June 30,	Amount
2018	\$ 403,648
2019	403,649
2020	754,972
2021	609,442
2022	96,163
Total	\$ 2,267,874

VRS issues a publicly available CAFR that includes financial statements and required supplementary information for the plans which it administers. A copy of that report may be obtained by writing to Virginia Retirement System, P.O. Box 2500, Richmond, Virginia 23218-2500, or from their website at www.varetire.org.

VRS Health Insurance Credit

(a) Plan Description

To assist retirees with the cost of health insurance coverage, the VRS administers a health insurance credit program. Retirees that have a minimum of fifteen years of service and are enrolled in a qualified health insurance plan may receive a monthly credit of \$1.50 per year of creditable service. The health insurance credit is funded by the Authority on behalf of its VRS eligible employees. For the years ended June 30, 2017 and 2016, the Authority paid approximately \$41,000 and \$51,000, respectively, towards these benefits, which was equal to the required contributions.

(b) Funding Policy and Annual Pension Cost

Plan members are required by Title 51.1 of the Code of Virginia (1950), as amended, to contribute an actuarially determined percentage of their annual reported compensation to the VRS for the retiree health insurance credit. The Authority has assumed the member contribution for its employees. The contribution rate of annual covered payroll was 0.18% and 0.24%, respectively for the fiscal years ended June 30, 2017 and 2016.

The required contributions for the Authority were determined as part of an annual actuarial valuation dated June 30, 2016 using the entry age normal actuarial cost method. The actuarial assumptions included (a) a 7.0% investment rate of return (net of administrative expenses), and (b) projected salary increases of 3.5-5.35% per year. Both (a) and (b) included an inflation component of 2.5%. The actuarial value of the Authority's assets is equal to the fair value of the assets. As of June 30, 2016, any unfunded actuarial accrued liability (UAAL) is being amortized as a level percentage of projected payroll on a closed basis, over a period of 27 years (decreasing by one each year in subsequent valuations until reaching 0 years).

(c) Funded Status and Funding Progress

As of June 30, 2016, the plan was 54.4% funded. The actuarial accrued liability (AAL) was approximately \$522,000, and the actuarial value of the assets was approximately \$284,000, with a resulting UAAL of approximately \$238,000.

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

(d) Trend Information

The tables below summarize the required three-year trend information for the Authority.

Schedule of Annual Benefit Cost Contributed for the Authority (in thousands)

Fiscal Year Ended	Annual Benefit Cost (ABC)		Net Benefit Obligation
	Employer Portion	Percentage of ABC Contributed	
June 30, 2017	\$ 41	100%	\$ —
June 30, 2016	51	100	—
June 30, 2015	48	100	—

Schedule of Funding Progress for the Authority (in thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Estimated Covered Payroll	(UAAL) as a Percentage of Covered Payroll
June 30, 2016	\$ 284	\$ 522	\$ 238	54.4%	\$ 21,154	1.1%
June 30, 2015	263	502	238	52.5	20,610	1.2
June 30, 2014	234	468	234	50.0	19,043	1.2

Other Postemployment Benefits (OPEB)

The Authority provides post-retirement health, dental, and vision benefits to retirees who have ten or more years of service with the Authority. For health and dental insurance coverage, retirees pay 100% of their monthly health insurance premium less a contribution by the Authority based on their number of years of service. For vision and supplemental dental coverage, retirees pay 100% of their monthly premiums, with no contribution made by the Authority. For the years ended June 30, 2017 and 2016, the Authority paid approximately \$655,000 and \$693,000, respectively, toward these premiums.

The Authority funds OPEB on a pay-as-you-go basis, in lieu of funding the actuarially calculated costs. As a result, in accordance with the provisions of GASB Statement 45, the Authority recognizes an OPEB liability in the amount of \$4,156,187 and \$3,542,884, respectively, on the Statements of Net Position as of June 30, 2017 and 2016. As the plan is funded on a pay-as-you-go basis, there is not a separate, audited GAAP-based postemployment benefit plan report available for the Authority's OPEB benefits.

The Authority's OPEB expense is calculated based on the annual required contribution (ARC), an amount actuarially determined in accordance with the provisions of GASB Statement 45. The ARC represents a level of funding that if paid on an ongoing basis, is projected to cover normal costs each year and amortizes the unfunded actuarial accrued liabilities (UAAL) over a 30 year open amortization period. Contribution amounts are developed using the projected unit credit cost method. The most current AAL was determined as part of a biennial actuarial valuation as of July 1, 2015. The benefits considered in this valuation are those of the Authority's current substantive plan of benefits at the time of the valuation, and are based on the pattern of sharing costs between the employer and plan members to that point.

Significant actuarial valuation methods and assumptions include (a) percentage of employees retiring at various years of service levels, which impacts employer contribution rates toward monthly premiums, (b) individual or family coverage status in retirement is assumed to remain the same as status during employment, (c) a discount rate of return on investment assets of 3.5% per annum on a non-funded basis, (d) an annual payroll growth rate of 3%, (e) medical cost trend assumption using the Getzen Model, starting at 5.10% in 2015, 6.10% in 2016, 6.80% in 2017 and 6.80% in 2018 graded to 4.40% in 2085. The actuarial valuations reflect a long-term perspective and involve estimates based on the probability of events far into the future, with the estimates continually subject to revision based on actual performance and new estimates for the future.

The tables below summarize the trend information for the Authority's annual OPEB obligations:

Fiscal Year Ended	Annual Required Contribution (ARC)	Interest on Net OPEB Obligation	Adjustment to ARC	Annual OPEB Cost	Pay as You Go OPEB Costs (Contributions)	Increase in Net OPEB Obligation	Net OPEB Obligation Beginning of Year	Net OPEB Obligation End of Year
June 30, 2017	\$ 1,275,300	\$ 125,193	\$ (132,265)	\$ 1,268,228	\$ 654,925	\$ 613,303	\$ 3,542,884	\$ 4,156,187
June 30, 2016	1,231,400	105,690	(120,485)	1,216,605	693,434	523,171	3,019,713	3,542,884
June 30, 2015	1,322,800	85,676	(94,501)	1,313,975	742,154	571,822	2,447,891	3,019,713

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Contributed	Net OPEB Obligation End of Year
June 30, 2017	\$ 1,268,228	51.6%	\$ 4,156,187
June 30, 2016	1,216,605	57.0	3,542,884
June 30, 2015	1,313,975	56.5	3,019,713

Schedule of OPEB Funding Progress for the Authority (in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30, 2015	\$ —	\$ 14,246	\$ 14,246	— %	\$ 21,619	65.9%
June 30, 2013	—	15,145	15,145	—	17,568	86.2
June 30, 2011	—	13,202	13,202	—	17,038	77.5

9 RISK MANAGEMENT

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These risks are covered by insurance purchased from VML Insurance Programs, a group insurance pool in the Commonwealth of Virginia. There have been no significant reductions in insurance coverage from the prior year, and settled claims have not exceeded insurance coverage for each of the fiscal years ended June 30, 2017, 2016, and 2015.

The Authority provides health benefits to employees under a self-insurance plan. Under an excess claims insurance policy, the Authority's liability is limited, on a calendar year basis, to aggregate claims per participant of \$110,000. A year end accrual of potential outstanding claims as of the last day of the fiscal year was estimated at three times the average monthly claim. As reflected in the table below, the liability for claims incurred but not reported as of June 30, 2017, 2016, and 2015 was estimated to be \$1,004,642, \$1,026,351, and \$988,565, respectively, and is included in accounts payable and accrued expenses on the accompanying Statements of Net Position.

	2017	2016	2015
Estimated outstanding claims liability at beginning of fiscal year	\$ 1,026,351	\$ 988,565	\$ 983,951
Employee and Employer portion of premiums withheld	3,872,730	3,813,749	4,246,668
Payments to Third Party Administrator	(3,894,439)	(3,775,963)	(4,242,054)
Estimated outstanding claims liability at end of fiscal year	\$ 1,004,642	\$ 1,026,351	\$ 988,565

For fiscal year 2018, the Authority estimates its share of claims to be approximately \$4.0 million. This estimate represents the Authority's best estimate; however, actual claims and judgments may vary from year to year.

Additionally, the Authority maintains its longstanding commitment of staffing and budget resources to both a regulatory affairs program and a safety loss and control program. The goal of these programs is to proactively manage and maintain its operations and work sites in the safest possible manner for the Authority's employees and its customers.

10 COMMITMENTS

(a) Fairfax Water

The Authority has several agreements with Fairfax Water, which collectively reserve treated water capacity of 62.4 MGD, representing 92% of the Authority's total water capacity. These agreements allow for the purchase of additional capacity, if available, based on actual construction and administrative costs negotiated at the time of sale. In the most recent May 2017 transaction, the Authority purchased an additional 5 MGD of water capacity for approximately \$26.6 million. Capacity payments are included in capital assets on the accompanying Statements of Net Position, and are amortized over the estimated useful life from the inception of the agreement, ranging between 40-50 years.

Fairfax Water provides water to the Service Authority from two water treatment plants, the Corbalis Water Treatment Plant in Herndon, Virginia, which withdraws water from the Potomac River and the Griffith Water Treatment Plant in Lorton, Virginia, which withdraws water from the Occoquan Reservoir. The Authority participates in construction and expansion costs of the two water treatment plants based on the Authority's purchased capacity. Amounts expended for construction, expansion and capacity in fiscal years 2017 and 2016, were \$26.8 million, and \$745,000, respectively, with total payments to date as of June 30, 2017 of \$123.6 million.

The Authority also has agreements with Fairfax Water for the reservation of transmission main capacity. Under these agreements, the Authority is required to make equal monthly payments for varying terms that range up to 420 months (35 years) from the date of the initial payment. Payments made in fiscal years 2017 and 2016 were approximately \$700,000. Future payments due to Fairfax Water for these agreements are as follows:

Years Ending June 30,

2018	\$ 668,006
2019	668,006
2020	668,006
2021	668,006
2022	668,006
2023-2027	3,340,030
2028-2030	2,004,018
Total	\$ 8,684,078

In addition, Fairfax Water charges the Authority a rate per thousand gallons of water delivered. The rate is based on Fairfax Water's operation, maintenance, and general and administrative costs divided by total consumption billed. Purchased water expenditures related to Fairfax Water for fiscal years 2017 and 2016 were approximately \$9.5 million and \$8.6 million, respectively.

(b) City of Manassas

The Authority has a water capacity and service agreement with the City of Manassas which effectively reserves 5 MGD of treated water capacity for the Authority at the City's water treatment facility at Lake Manassas, which represents approximately 7% of the Authority's total available purchased water capacity. The agreement also allows for the use of an additional 2 MGD by either party if needed. The Authority is obligated to pay the City's wholesale rate for purchases at the water treatment facility and is obligated to pay the City's wholesale rate plus a wheeling charge for water taken at other delivery points. The City's wholesale rate consists of fixed and variable costs per the agreement. The initial amount paid by the Authority to the City for the 5 MGD of capacity was \$8,131,846. This amount is included in capital assets as advance capacity payments on the accompanying Statements of Net Position, and is being amortized through the year 2039 on a straight line basis.

The Authority also shares in the cost of certain capital improvements based on the Authority's reserved capacity as a percentage of the total permitted capacity at the City's water treatment facility. The Authority has made payments for capital costs during the fiscal years ended June 30, 2017 and 2016 in the amount of \$24,000 and \$8,000, respectively. These payments are included in capital assets as advance capacity payments on the accompanying Statements of Net Position, and are being amortized over 40 years on a straight-line basis.

The cost of water purchased by the Authority from the City during fiscal years 2017 and 2016 were approximately \$1.5 and \$1.9 million, respectively.

(c) City of Manassas Park

In December 2008, pursuant to the terms of a Water Capacity Purchase and Service Agreement (the Agreement), the Authority sold 1.4 MGD of wholesale water capacity to the City of Manassas Park for \$9,870,000. The rate for water service will be based on the wholesale rate charged by Fairfax Water to the Authority, plus other charges and costs which are defined in the Agreement.

(d) Prince William County Credit

Effective December 31, 2012, the Authority entered into an Amendment to the Modification and Assumption Agreement with the County (the Amendment), whereby the Authority would assume responsibility for paying the County's existing obligation towards UOSA debt service. Under the terms of the Amendment, the Authority established a non-cash credit for the benefit of the County in the amount of \$13,782,300, representing previous payments made by the County toward UOSA debt service under existing agreements.

The County may use this non-cash credit to purchase water and sewer availability, or any asset of the Authority offered for sale by the Authority. The non-cash credit will be reduced by the value of any such sale. In order to access the non-cash credit, the County must provide to the Authority a duly adopted resolution of the BOCS authorizing the application of the non-cash credit for a specific transaction. To date, the County has used \$1,586,660 of the non-cash credit toward availability fees for various County facilities.

Additionally, an agreement has been executed for the sale of a part of the 57.86 acres of land (the Occoquan Forest site) from the Authority to the County for \$2,000,000, to be paid by the County using the non-cash credit. The sale will be completed per the terms of the sale agreement once the facility has been fully decommissioned in accordance with state and federal requirements, by the end of March 2021.

As of June 30, 2017, the remaining amount of the non-cash credit available to the County is \$10,195,640, of which \$490,234 has been approved by the BOCS for use in earmarked projects.

(e) Virginia Department of Transportation (VDOT)

VDOT requires all entities performing work in the VDOT right-of-way to post a continuous bond or surety to insure compliance with the conditions of land use permits that are issued by VDOT and to guarantee the satisfactory performance of the work.

Through its commercial insurance policies, the Authority meets VDOT's requirements for liability coverage for personal injury, property damage and lawsuits that may arise from the work performed under the permits.

(f) Other Commitments

The Authority has entered into various other commitments for capital projects and operating expenditures totaling approximately \$13.0 million as of June 30, 2017.

(g) Operating Lease

In November 2008, the Authority executed an agreement to lease commercial office space in Woodbridge, VA to be used as an employee training facility. The original lease term was for five years, with an expiration date of April 30, 2014, and was extended for two years through April 30, 2016. Payments made under the lease during the year ended June 30, 2016 were \$64,108.

In April 2016, the Authority executed an agreement to lease commercial industrial space in Woodbridge, VA to be used as warehouse space. The original lease term is for two years, with an expiration date of March 31, 2018, and can be extended for one year through March 31, 2019. Payments made under the lease during the years ended June 30, 2017 and 2016 were \$45,555 and \$11,104, respectively.

Future minimum lease payments for the remaining lease term are as follows:

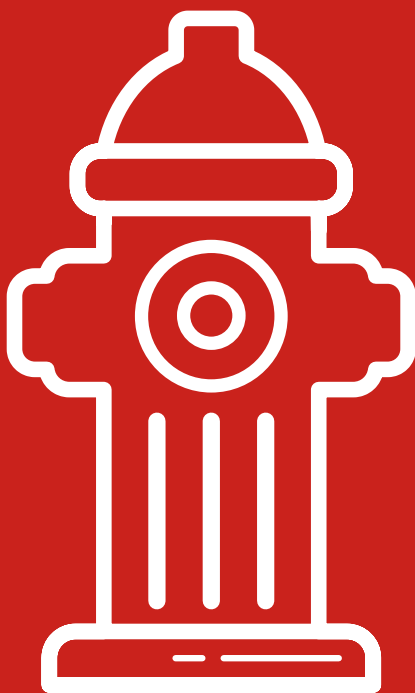
Years Ending June 30,

2018	\$	34,114
2019		25,585
Total	\$	<u>59,699</u>

11 CONTRIBUTIONS FROM DEVELOPERS AND OTHERS

	2017	2016
Contributed Assets	\$ 22,913,046	\$ 21,794,174

Contributions from developers and governmental entities were received in the form of cash, property, water mains, sanitary sewer lines, pumping stations, fire hydrants, manholes and associated infrastructure. These amounts are reflected as income on the accompanying Statements of Revenues, Expenses and Changes in Net Position.



11,727

FIRE HYDRANTS

are connected to our

WATER

Distribution System

Prince William County Service Authority

REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)

Schedule of Changes in Net Pension Liability and Related Ratios

Information presented is based on the actuarial information for the plan year ended:

	June 30, 2016	June 30, 2015	June 30, 2014
Total Pension Liability			
Service cost	\$ 2,355,421	\$ 2,242,139	\$ 2,206,642
Interest	2,177,586	1,865,113	1,647,355
Difference between expected and actual experience	728,798	1,273,190	—
Benefit payments, including refunds of employee contributions	(1,115,876)	(717,210)	(769,149)
Net change in total pension liability	4,145,929	4,663,232	3,084,848
Total pension liability - beginning	31,666,303	27,003,071	23,918,223
Total pension liability - ending (a)	\$ 35,812,232	\$ 31,666,303	\$ 27,003,071
Plan Fiduciary Net Position			
Contributions - employer	\$ 2,179,687	\$ 2,102,230	\$ 2,153,139
Contributions - employee	1,031,701	1,004,829	977,870
Net investment income	578,136	1,202,198	3,169,360
Benefit payments, including refunds of employee contributions	(1,115,876)	(717,210)	(769,149)
Administrative expense	(15,995)	(13,734)	(14,928)
Other	(223)	(261)	167
Net change in plan fiduciary net position	2,657,430	3,578,052	5,516,459
Plan fiduciary net position - beginning	28,103,125	24,525,073	19,008,614
Plan fiduciary net position - ending (b)	\$ 30,760,555	\$ 28,103,125	\$ 24,525,073
Net pension liability - ending (a) - (b)	\$ \$5,051,677	\$ 3,563,178	\$ 2,477,998
Plan fiduciary net position as a percentage of the total pension liability - end of year	85.89%	88.75%	90.82%
Covered payroll	\$ 22,254,970	\$ 21,098,905	\$ 19,834,457
Net pension liability as a percentage of covered payroll	22.70%	16.89%	12.49%

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

Schedule of Employer Contributions

For the Year Ended	Contractually Required Contribution	Contribution in Relation to the Contractually Required Contribution	Contribution Deficiency (excess)	Covered Payroll	Contributions as a Percentage of Covered-Employee Payroll
June 30, 2017	\$ 2,243,187	\$ 2,243,187	\$ —	\$ 23,622,592	9.50%
June 30, 2016	2,179,687	2,179,687	—	22,254,970	9.79
June 30, 2015	2,102,230	2,102,230	—	21,098,905	9.96
June 30, 2014	2,153,139	2,153,139	—	19,834,457	10.86

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

See accompanying notes to required supplementary information.

Prince William County Service Authority

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION FOR THE YEAR ENDED JUNE 30, 2017

1. *Changes of Benefit Terms*

There have been no significant changes to the VRS benefit provisions since the prior actuarial valuation. A hybrid plan with changes to the defined benefit plan structure and a new defined contribution component were adopted in 2012. The liabilities presented in the accompanying Schedule of Changes in Net Pension Liability and Related Ratios reflect the hybrid plan for the first time. The hybrid plan covers eligible employees hired on or after January 1, 2014.

2. *Changes of Assumptions*

The following changes in actuarial assumptions reflected in the accompanying Schedule of Changes in Net Pension Liability were made effective June 30, 2013 based on the most recent experience study of the VRS Plans for the four-year period ended June 30, 2012:

- Updates to mortality tables
- Decreases in rates of service retirement
- Decreases in rates of disability retirement
- Reduces the rate of salary increases by 0.25% per year

Prince William County Service Authority

REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)

Schedule of Health Insurance Credit Program Funding Progress for the Authority (in thousands)


Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Estimated Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30, 2016	\$ 284	\$ 522	\$ 238	54.4%	\$ 21,154	1.1%
June 30, 2015	263	502	238	52.5	20,610	1.2
June 30, 2014	234	468	234	50.0	19,043	1.2
June 30, 2013	178	427	249	41.7	17,563	1.4
June 30, 2012	138	354	217	38.9	16,879	1.3
June 30, 2011	121	330	209	36.7	16,091	1.3
June 30, 2010	82	264	182	31.2	17,027	1.1
June 30, 2009	52	196	144	26.5	16,418	0.9
June 30, 2008	33	404	371	8.2	15,355	2.4

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

Schedule of OPEB Funding Progress for the Authority (in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Estimated Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30, 2015	\$ —	\$ 14,246	\$ 14,246	— %	\$ 21,619	65.9%
June 30, 2013	—	15,145	15,145	—	17,568	86.2
June 30, 2011	—	13,202	13,202	—	17,038	77.5
June 30, 2009	—	10,456	10,456	—	17,281	60.5
June 30, 2007	—	11,930	11,930	—	unavailable	unavailable

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



Providing clean water is at the heart of the Service Authority's mission.

From transmission main to tap, we are constantly checking the quality of our drinking water. In addition to tests conducted in the field, the Service Authority runs more than 1,000 water quality tests a month at its state-of-the-art laboratory in the Durward E. Grubbs Jr. Environmental Center in Woodbridge.

"Clean water is crucial to the health and welfare of the public, the economy and the environment," said Regulatory Affairs Officer John DeRosa.



Statistical Section

Clean

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STATISTICAL SECTION (Unaudited)

This section of the Authority's CAFR presents detailed information to provide a context for understanding what the information in the financial statements, notes to financial statements and required supplementary information says about the Authority's overall financial health.

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FINANCIAL TRENDS

Financial trend information is intended to assist users in understanding how the Authority's financial position has changed over time. The tables which follow disclose ten years of financial data.

TABLE 1 Condensed Statements of Net Position – Last Ten Fiscal Years (in thousands)

	2017	2016	2015 *	2014 **	2013 **	2012	2011	2010	2009	2008
Assets and Deferred Outflows of Resources										
Current assets	\$ 154,708	\$ 129,473	\$ 149,886	\$ 130,640	\$ 164,369	\$ 156,753	\$ 147,560	\$ 206,101	\$ 161,520	\$ 178,207
Non-current assets	1,300,963	1,289,955	1,243,984	1,234,393	1,169,506	1,184,570	1,138,866	1,043,404	1,048,843	945,150
Deferred outflows of resources	7,507	6,587	5,847	4,675	5,182	—	—	—	—	—
Total assets and deferred outflows of resources	\$1,463,178	\$1,426,015	\$1,399,717	\$1,369,708	\$1,339,057	\$1,341,323	\$1,286,426	\$1,249,505	\$1,210,363	\$1,123,357
Liabilities and Deferred Inflows of Resources										
Current liabilities	\$ 24,756	\$ 26,572	\$ 24,403	\$ 25,917	\$ 21,436	\$ 26,221	\$ 25,094	\$ 33,027	\$ 34,724	\$ 30,942
Long-term liabilities	141,366	148,658	156,032	161,962	169,624	206,578	211,518	205,529	210,751	198,632
Deferred inflows of resources	—	576	1,405	—	—	—	—	—	—	—
Total liabilities and deferred inflows of resources	166,122	175,806	181,840	187,879	191,060	232,799	236,612	238,556	245,475	229,574
Net Position										
Net investment in capital assets	882,957	840,189	806,629	748,917	723,758	660,584	618,970	583,880	529,065	491,490
Restricted	17,204	16,556	15,954	19,060	20,281	28,083	29,719	30,188	35,812	42,944
Unrestricted	396,895	393,464	395,294	413,852	403,958	419,857	401,125	396,881	400,011	359,349
Total net position	1,297,056	1,250,209	1,217,877	1,181,829	1,147,997	1,108,524	1,049,814	1,010,949	964,888	893,783
Total liabilities, deferred inflows of resources and net position	\$1,463,178	\$1,426,015	\$1,399,717	\$1,369,708	\$1,339,057	\$1,341,323	\$1,286,426	\$1,249,505	\$1,210,363	\$1,123,357

* The Authority implemented GASB Statement 68 in fiscal year 2015, which changed the manner in the way certain items are reported. Data shown for fiscal year 2015 forward is reported in accordance with GASB 68. Prior years were not changed.

** The Authority implemented GASB Statement 65 in fiscal year 2014, which changed the manner in the way certain items are reported. Data shown for fiscal years 2013 forward are reported in accordance with GASB 65. Prior years were not changed.

Source: Prince William County Service Authority.

TABLE 2 Condensed Statements of Revenues, Expenses and Changes in Net Position – Last Ten Fiscal Years (in thousands)

	2017	2016	2015*	2014**	2013**	2012	2011	2010	2009	2008
Operating revenues										
Water and sewer user charges	\$ 111,896	\$ 105,937	\$ 102,061	\$ 100,592	\$ 98,119	\$ 93,880	\$ 88,988	\$ 82,068	\$ 70,714	\$ 67,160
Other	2,655	2,513	2,380	2,640	2,978	1,947	1,832	1,932	1,949	2,518
Total operating revenues	114,551	108,450	104,441	103,232	101,097	95,827	90,820	84,000	72,663	69,678
Non-operating revenues										
Availability fees	36,617	26,471	33,183	30,892	41,722	34,344	21,874	26,106	38,123	21,683
Investment and other income	1,428	5,288	3,681	3,325	2,191	4,155	3,968	8,775	20,549	25,367
Grant revenue	—	—	—	—	823	1,343	2,219	14,751	15,401	4
Contributions from developers/others	22,913	21,794	18,685	16,364	13,422	36,987	31,391	21,125	35,232	40,735
Equity interest in UOSA	822	(8,058)	(3,808)	(5,413)	(1,629)	(3,459)	(7,179)	(1,345)	(8,427)	(2,046)
Total non-operating revenues	61,780	45,495	51,741	45,168	56,529	73,370	52,273	69,412	100,878	85,743
Total revenues	176,331	153,945	156,182	148,400	157,626	169,197	143,093	153,412	173,541	155,421
Operating expenses										
Personnel services	32,914	30,561	29,314	28,757	27,505	25,673	25,207	27,291	25,720	22,647
Purchased resources	23,429	22,972	21,244	21,145	22,121	22,694	20,624	23,630	21,790	18,760
Contractual services	8,698	8,668	7,157	6,487	5,513	5,421	5,138	5,648	4,729	4,406
Materials and supplies	4,857	4,609	4,715	4,818	4,199	4,151	4,127	4,160	6,917	6,559
Other	6,203	5,110	5,317	4,900	4,927	4,614	4,173	4,006	4,725	4,167
Total operating expenses	76,101	71,920	67,747	66,107	64,265	62,553	59,269	64,735	63,881	56,539
Non-operating expenses										
Depreciation/amortization	38,357	34,716	33,103	31,688	30,810	28,924	26,909	21,549	20,513	18,788
Interest expense	3,969	4,221	5,310	5,703	12,275	9,367	8,930	11,751	9,408	8,014
Payments for UOSA debt service	10,389	10,030	10,491	10,343	9,576	8,780	7,919	8,021	7,047	6,124
Other	668	726	726	727	727	863	1,201	1,295	1,587	1,599
Total non-operating expenses	53,383	49,693	49,630	48,461	53,388	47,934	44,959	42,616	38,555	34,525
Total expenses	129,484	121,613	117,377	114,568	117,653	110,487	104,228	107,351	102,436	91,064
Change in net position	46,847	32,332	38,805	33,832	39,973	58,710	38,865	46,061	71,105	64,357
Total net position, beginning of year	1,250,209	1,217,877	1,179,072	1,147,997	1,108,024	1,049,814	1,010,949	964,888	893,783	829,426
Total net position, end of year	\$ 1,297,056	\$ 1,250,209	\$ 1,217,877	\$ 1,181,829	\$ 1,147,997	\$ 1,108,524	\$ 1,049,814	\$ 1,010,949	\$ 964,888	\$ 893,783

* The Authority implemented GASB Statement 68 in fiscal year 2015, which required a restatement of beginning Net Position effective July 1, 2014.

** The Authority implemented GASB Statement 65 in fiscal year 2014, which changed the manner in the way certain items are reported. Data shown for fiscal years 2013 forward are reported in accordance with GASB 65. Prior years were not changed.

Source: Prince William County Service Authority.

REVENUE CAPACITY INFORMATION

Revenue capacity information is provided to assist users in understanding the factors affecting the Authority's ability to generate sources of revenue. In setting the user rate and availability fee structure, the Authority's general practice has been to cover projected operating costs with user rates and to cover projected capital improvement costs with availability fees. That practice generally allows growth in use of the Authority's services to pay for the additional costs of expanding the Authority's system capacity. The tables below set forth historical user and availability fees for a typical customer over the last ten years. For a complete schedule of all rates and fees, please visit our website at www.pwcsa.org, or contact the Authority's Customer Service Department at 703-335-7950 or mail your request to Prince William County Service Authority, Customer Service Department, PO Box 2266, Woodbridge, Virginia 22195-2266.

TABLE 3 Water and Wastewater Charges – Last Ten Fiscal Years (in dollars)

User fees consist of a fixed monthly service charge, plus a commodity charge for water and sewer service. The monthly service fee is designed to recover fixed administrative costs and is based on meter size and the type of service being provided (water and/or sewer). Commodity charges cover the cost of purchased water and sewage treatment as well as the cost of operation and maintenance for the Service Authority's lines, pumping stations and water storage tanks. Commodity rates are based on the revenue class (Residential or Commercial) and the type of service being provided, and are billed based on metered water usage. Rate increases were effective September 1 for fiscal years 2004 through 2012 and January 1 starting in fiscal year 2013.

Fiscal Year	Commodity Charges (1)				Service Charges (2)			
	Residential		Commercial		3/4 inch		1 inch	
	Water	Wastewater	Water	Wastewater	Water	Wastewater	Water	Wastewater
2017	\$ 3.35	\$ 6.55	\$ 3.70	\$ 7.15	\$ 5.45	\$ 9.60	\$ 21.80	\$ 38.40
2016	3.35	6.55	3.70	7.15	5.05	8.90	17.70	31.15
2015	3.35	6.55	3.70	7.15	4.65	8.20	13.95	24.60
2014	3.35	6.55	3.70	7.15	4.25	7.50	10.80	18.75
2013	3.35	6.55	3.70	7.15	4.25	7.50	10.80	18.75
2012	3.20	6.20	3.50	6.80	4.05	7.10	10.25	17.80
2011	3.05	5.90	3.30	6.45	3.85	6.75	9.75	16.90
2010	2.90	5.60	3.15	6.10	3.65	6.40	9.25	16.05
2009	2.65	5.15	2.90	5.55	3.35	5.85	8.45	14.65
2008	2.40	4.70	2.65	5.05	3.05	5.30	7.70	13.35

(1) Commodity charges are based on 1,000 gallons of consumption.

(2) Monthly service charges are based on meter size. The two most common meter sizes are disclosed above.

Source: Prince William County Service Authority.

TABLE 4 Availability Fees – Last Ten Fiscal Years (in dollars)

All new customers connecting to the system are required to pay an availability fee before obtaining a building permit from Prince William County. Availability fees are used to fund long-term commitments associated with future system capacity and costs associated with expanding the system to serve new customers. Availability fees are based on the type of service (water and/or sewer) and the amount of monthly capacity purchased. Through June 30, 2017, any rate increases have been effective on September 1 of the fiscal year.

Fiscal Year	Residential (1)			Commercial (2)		
	Water	Wastewater	Total	Water	Wastewater	Total
2017	\$ 4,600	\$ 10,800	\$ 15,400	\$ 18,400	\$ 43,200	\$ 61,600
2016	4,600	10,800	15,400	18,400	43,200	61,600
2015	4,600	10,800	15,400	18,400	43,200	61,600
2014	4,600	10,800	15,400	18,400	43,200	61,600
2013	4,600	10,800	15,400	18,400	43,200	61,600
2012	4,400	10,300	14,700	13,200	30,900	44,100
2011	4,200	9,900	14,100	12,600	29,700	42,300
2010	4,000	9,500	13,500	12,000	28,500	40,500
2009	4,000	9,000	13,000	12,000	27,000	39,000
2008	4,000	8,500	12,500	12,000	25,500	37,500

(1) Residential availability fee disclosed above is based on a 3/4" meter size.

(2) Commercial availability fee disclosed above is based on a 1" meter size.

Source: Prince William County Service Authority.

TABLE 5 Ten Principal Customers by Year – Current Year and Nine Years Ago

Principal rate payer information is useful to determine concentrations in the source of revenues. This information provides predictive value of the Authority's economic condition if, for example, any major customers were to encounter financial difficulties which impact their use of Authority services. Over the past ten years, no single customer accounted for more than 2% of revenues from water and sewer user charges.

Total water and sewer user charge revenues (in thousands)		\$ 111,896		\$ 67,160	
Name	Type	2017		2008	
		Amount	% of Total	Amount	% of Total
Prince William County Schools	Schools	\$1,759	1.57%	\$900	1.34%
City of Manassas Park	Utility	736	0.66	–	–
Data Company	Data Centers	634	0.57	–	–
Potomac Club	Housing	631	0.56	–	–
Summerland Heights Apartments	Housing	523	0.47	329	0.49
Crothall Laundry Services	Hospital Laundry	506	0.45	248	0.37
Prince William County Parks	Parks and Swimming Pools	493	0.44	222	0.33
Westgate Apartments	Housing	473	0.42	316	0.47
Potomac Mills Mall	Shopping Mall	450	0.40	208	0.31
Navy Military Housing	Military Housing	429	0.38	–	–
Sentara Potomac Hospital	Hospital	–	–	215	0.32
Rollingbrook Village	Housing	–	–	181	0.27
Coverstone Apartments	Housing	–	–	228	0.34
Markhams Grant	Housing	–	–	168	0.25

Source: Prince William County Service Authority.

DEBT CAPACITY INFORMATION

Debt capacity information is intended to assist users in understanding the Authority's debt burden and ability to issue additional debt. The ultimate guarantors of Authority debt are its customers, however, availability fees are designed to recover the cost of debt associated with expansion.

TABLE 6 Outstanding Debt Coverage – June 30, 2017

	Outstanding Debt	# of Customers	Debt Coverage per Customer
VRA Loans Payable	\$ 72,427,732	90,892	\$ 796.85
Revenue Bonds	64,777,622	90,892	712.69
Total	<u>\$ 137,205,354</u>	90,892	<u>\$ 1,509.54</u>

Source: Prince William County Service Authority.

TABLE 7 Pledged Revenue Coverage – Last Ten Fiscal Years (in thousands)

Senior debt consists of Revenue and Refunding bond issuances which are backed by pledged revenues and, starting in fiscal year 2008, senior debt includes financing agreements entered into with the Virginia Resources Authority. Revenues mean all revenues, receipts and other income derived from the ownership or operation of the Authority, including, without limitation, availability fees and any investment earnings. Through fiscal year 2007, subordinate debt consisted of financing agreements entered into with the VRA.

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Pledged revenues	\$ 152,595	\$ 140,209	\$ 141,305	\$ 137,450	\$ 145,010	\$ 134,326	\$ 116,662	\$ 118,881	\$ 131,336	\$ 116,728
Senior debt (1)										
Principal and interest requirements	\$ 7,927	\$ 7,927	\$ 8,256	\$ 8,544	\$ 9,588	\$ 10,327	\$ 13,393	\$ 8,485	\$ 7,334	\$ 14,710
Senior debt revenue coverage (1)	19.25	17.69	17.12	16.09	15.12	13.01	8.71	14.01	17.91	7.94
Total debt revenue coverage	19.25	17.69	17.12	16.09	15.12	13.01	8.71	14.01	17.91	7.94

(1) Effective with the closing of a new financing agreement with the VRA on June 28, 2007, all of the outstanding balances with the VRA became parity with the outstanding Revenue and Refunding Bonds debt. In fiscal years 2008 through 2017, the Authority made advanced payments to the Trustee toward debt service for the subsequent year.

See Table 8 and Table 9 for revenue coverage tests as defined by the Revenue Covenant and associated definitions within the Master Bond Indenture.

Source: Prince William County Service Authority.

TABLE 8 Revenue Bond Coverage, Test 1 – Last Ten Fiscal Years (in thousands)

This coverage test measures whether Net Revenues Available for Debt Service are sufficient to cover 1.2 times (or 120%) of annual debt service requirements. The Authority consistently exceeds the required coverage ratio. Calculations are based on the Revenue Covenant and associated definitions within the Authority's Master Bond Indenture.

Fiscal Year	Gross Revenues (1)	Operating Expenses (2)	Net Revenues Available for Debt Service	1.2 Times Senior Debt Service Requirements (3)	Coverage (1.0 Req'd)
2017	\$ 152,595	\$ 87,158	\$ 65,437	\$ 9,512	6.88
2016	140,209	82,677	57,532	9,512	6.05
2015	141,305	78,965	62,340	9,907	6.29
2014	137,450	77,177	60,273	10,253	5.88
2013	145,010	74,567	70,443	11,506	6.12
2012	134,326	72,196	62,130	12,392	5.01
2011	116,662	68,388	48,274	16,072	3.00
2010	118,881	74,053	44,828	10,182	4.40
2009	131,336	72,515	58,821	8,801	6.68
2008	116,728	64,263	52,465	17,652	2.97

- (1) Gross revenues include all revenue categories except contributions from developers, funds received from grants and equity in earnings of UOSA.
- (2) Operating expenses include operating expenses plus principal and interest payments on UOSA debt, payments on capacity agreements with Fairfax Water, and principal and interest payments on a note with Fairfax Water. The final payment on the note by the Authority to Fairfax Water was made during fiscal year 2007.
- (3) Effective with the closing of a financing agreement with the VRA on June 28, 2007, all of the outstanding balances with the VRA become parity with the outstanding Revenue and Refunding Bonds debt. Prior to fiscal year 2007, senior debt service represented principal and interest on Revenue and Refunding Bonds only while subordinate debt service represented principal and interest on VRA debt only. In fiscal years 2008 through 2017, the Authority made advanced payments to the Trustee toward debt service for the subsequent year.

Source: Prince William County Service Authority.

TABLE 9 Revenue Bond Coverage, Test 2 – Last Ten Fiscal Years (in thousands)

The Authority is required to meet at least one of the two coverage ratios reported in the table below. Coverage A demonstrates the Authority's ability to withstand a 50% reduction of Availability Fees and maintain Adjusted Net Revenues sufficient to cover 100% of annual debt service requirements. Coverage B demonstrates the Authority's ability for Adjusted Net Revenues plus 50% of the Unrestricted Reserves (primarily cash and investments) to cover 1.5 times (or 150%) of annual debt service requirements. The Authority consistently exceeds these required coverage ratios. Calculations are based on the Revenue Covenant and associated definitions within the Master Bond Indenture.

Fiscal Year	Net Revenues Available for Debt Service	Less 50% Developer Charges	Adjusted Net Revenues	Senior Debt Service Requirements (2)	"Either/Or" Coverage Requirement		
					Coverage A (1.0 Req'd)	Adjusted Net Revenues Plus 50% Unrestricted Reserves (1)	Coverage B (1.5 Req'd)
2017	\$ 65,437	\$ 18,309	\$ 47,128	\$ 7,927	5.95	\$ 216,640	27.33
2016	57,532	13,236	44,296	7,927	5.59	213,779	26.97
2015	62,340	16,592	45,748	8,256	5.54	204,675	24.79
2014	60,273	15,446	44,827	8,544	5.25	210,613	24.65
2013	70,443	20,861	49,582	9,588	5.17	205,698	21.45
2012	62,130	17,172	44,958	10,327	4.35	208,736	20.21
2011	48,274	10,938	37,336	13,393	2.79	189,403	14.14
2010	44,828	13,053	31,775	8,485	3.74	197,861	23.32
2009	58,821	19,062	39,759	7,334	5.42	212,554	28.98
2008	52,465	10,841	41,624	14,710	2.83	203,994	13.87

- (1) Unrestricted Reserves is the unrestricted fund balance, less one month's budgeted operating expense.
- (2) Effective with the closing of a new financing agreement with the VRA on June 28, 2007, all of the outstanding balances with the VRA become parity with the outstanding Revenue and Refunding Bonds debt. In fiscal years 2008 through 2017, the Authority made advanced payments to the Trustee toward debt service for the subsequent year.

Source: Prince William County Service Authority.

DEMOGRAPHIC AND ECONOMIC INFORMATION

Demographic and economic information is intended to assist users in understanding the socio-economic environment within which the Authority operates and to provide information that facilitates comparisons of financial statement information over time.

**TABLE 10 Prince William County Population Data
Last Ten Calendar Years**

Calendar Year	Population	Change	% Change
2017	455,267	5,403	1.2%
2016	449,864	8,237	1.9
2015	441,627	8,003	1.9
2014	433,624	7,943	1.9
2013	425,681	7,574	1.8
2012	418,107	7,653	1.9
2011	410,454	8,452	2.1
2010	402,002	9,102	2.3
2009	392,900	4,631	1.2
2008	388,269	7,048	1.9

Source: Prince William County.

**TABLE 11 Prince William County Employment Data
Last Ten Calendar Years**

Calendar Year	Civilian Labor Force (1)	At-Place Employment (2)	Unemployment Rate %
2017	242,543	data not available	3.5%
2016	234,139	126,283	3.6
2015	231,076	122,607	4.1
2014	232,071	119,463	4.9
2013	231,067	116,645	5.2
2012	228,830	112,954	5.3
2011	225,195	108,137	5.7
2010	218,394	103,877	6.1
2009	208,417	102,075	5.4
2008	206,086	103,717	3.3

Source: Prince William County.

TABLE 12 Prince William County Employer Data – Current Year and Nine Years Ago

The ten largest employers in Prince William County for the current year and nine years ago, respectively, are as follows:

Employer	Industry	2017		2008	
		Rank	Employees	Rank	Employees
Prince William County School Board	Local Government	1	1,000 and over	2	1,000 and over
County of Prince William	Local Government	2	1,000 and over	3	1,000 and over
U.S. Department of Defense	Federal Government	3	1,000 and over	1	1,000 and over
Walmart	Private	4	1,000 and over	–	–
Morale Welfare and Recreation	Federal Government	5	1,000 and over	–	–
Sentara Healthcare/Potomac Hospital Corporation	Private	6	1,000 and over	4	1,000 and over
Wegmans Store #07	Private	7	500 to 999	–	–
Northern Virginia Community College	State Government	8	500 to 999	8	500 to 999
Target Corporation	Private	9	500 to 999	–	–
Food Lion	Private	10	500 to 999	–	–
Minnieland Private Day School Inc.	Private	–	–	6	500 to 999
S.W. Rogers Company	Private	–	–	5	1,000 and over
General Dynamics Land Systems	Private	–	–	7	500 to 999
George Mason University	Private	–	–	9	500 to 999
Alliant/Atlantic Food Services, Inc.	Private	–	–	10	250 to 499

Source: Prince William County.

TABLE 13 Prince William County Personal Wealth Data – Last Ten Calendar Years

Fiscal Year	Average Assessed Housing Value (1)			
	Single Family	Townhouse	Condominium	Total
	Detached			Residential
2017	\$ 397,000	\$ 267,200	\$ 218,300	\$ 346,700
2016	389,900	260,500	211,600	340,200
2015	381,600	252,700	205,800	332,600
2014	359,900	234,200	186,600	312,100
2013	335,300	212,000	170,100	289,100
2012	320,400	195,900	160,400	274,300
2011	310,700	189,000	157,100	265,800
2010	295,500	172,200	152,600	251,200
2009	290,200	173,200	162,200	248,900
2008	402,100	270,900	232,800	354,300

(1) Averages reflect housing existing on January 1 of each year.

Source: Prince William County.

OPERATING INFORMATION

Operating information is intended to provide contextual information about the Authority's operations and resources to assist readers in using financial statement information to understand and assess the Authority's economic condition.

TABLE 14 Operating Indicators – Last Ten Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Number of employees	306	288	281	258	257	253	245	259	250	254
Number of customers	90,892	89,235	88,057	87,061	85,991	84,513	83,687	81,101	78,654	76,184
Miles of water lines	1,225	1,214	1,203	1,195	1,185	1,165	1,149	1,135	1,083	996
Miles of sewer lines	1,091	1,086	1,080	1,097	1,097	1,085	1,082	1,052	1,038	1,015
Wastewater pumping stations	59	59	58	58	57	57	57	57	59	59
Water tank storage effective capacity (MG)	26.1	26.1	26.1	26.1	26.1	26.1	24.4	24.4	24.4	24.4
Number of fire hydrants	11,727	11,327	11,181	11,010	10,777	10,730	10,562	10,149	10,098	10,015
Water capacity (MGD):										
Capacity at Fairfax Water	62.4	57.4	57.4	51.4	51.4	51.4	51.4	51.4	51.4	49.4
Capacity at City of Manassas	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Service Authority wells	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total water capacity	67.9	62.9	62.9	56.9	56.9	56.9	56.9	56.9	56.9	54.9
Wastewater treatment capacity (MGD):										
Capacity at HLM AWRF	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0
Capacity at UOSA	19.8	19.8	19.8	19.8	19.8	19.8	19.8	17.8	17.8	17.8
Total wastewater treatment capacity	43.8	43.8	43.8	43.8	43.8	43.8	43.8	35.8	35.8	35.8

Source: Prince William County Service Authority.

TABLE 15 Service Demand – Last Ten Fiscal Years

Fiscal Year	Customer Accounts	Millions of Gallons (MG)			
		Water Produced	Water Purchased	Water Peak Day Flow	Wastewater Treated
2017	90,892	43	10,316	43.0	9,177
2016	89,235	68	9,907	34.2	9,540
2015	88,057	62	9,468	36.4	9,379
2014	87,061	58	9,388	35.3	9,739
2013	85,991	60	9,418	43.2	8,760
2012	84,513	58	9,461	43.7	9,108
2011	83,687	50	9,552	43.8	8,501
2010	81,101	60	9,231	42.2	9,056
2009	78,654	65	8,870	39.5	8,407
2008	76,184	72	9,390	43.8	8,485

Source: Prince William County Service Authority.

GLOSSARY OF ACRONYMS

AAL	Actuarial Accrued Liability	MD&A	Management's Discussion and Analysis
ABC	Annual Benefit Cost	MG	Million Gallons
APC	Annual Pension Cost	MGD	Million Gallons per Day
ARC	Annual Required Contribution	NPL	Net Pension Liability
BOCS	Board of County Supervisors	OPEB	Other Postemployment Benefits
CAFR	Comprehensive Annual Financial Report	PTO	Paid Time Off
CIP	Capital Improvements Program	SCADA	Supervisory Control and Data Acquisition
COLA	Cost of Living Adjustment	S&P	Standard and Poor's Rating Services
CPI-U	Consumer Price Index for all Urban Consumers	SEC	Securities and Exchange Commission
ERU	Equivalent Residential Unit	TPL	Total Pension Liability
FDIC	Federal Deposit Insurance Corporation	UAAL	Unfunded Actuarial Accrued Liability
FFCB	Federal Farm Credit Bank	UOSA	Upper Occoquan Service Authority
FHLB	Federal Home Loan Bank	US	United States
GAAP	Generally Accepted Accounting Principles	VDOT	Virginia Department of Transportation
GASB	Governmental Accounting Standards Board	VML	Virginia Municipal League
GFOA	Government Finance Officers Association	VRA	Virginia Resources Authority
HLM AWRF	H.L. Mooney Advanced Water Reclamation Facility	VRS	Virginia Retirement System
		VSDP	Virginia Sickness and Disability Program
LGIP	Local Government Investment Pool	VWFRF	Virginia Water Facilities Revolving Fund



Prince William County Service Authority
P.O. Box 2266
Woodbridge, VA 22195-2266