

**Fauquier County**  
**Water and Sanitation Authority**  
**Warrenton, Virginia**

**Comprehensive Annual  
Financial Report**



**YEARS ENDED  
JUNE 30, 2018 AND 2017**



**FAUQUIER COUNTY WATER AND SANITATION AUTHORITY**

**WARRENTON, VIRGINIA**

Comprehensive Annual Financial Report  
Years Ended June 30, 2018 and 2017

**Prepared by:**

---

Deborah A. Whitley  
Director of Finance



---

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Comprehensive Annual Financial Report Years Ended June 30, 2018 and 2017

---

### Table of Contents

	<u>Page</u>
<b><u>Introductory Section</u></b>	
Title Page	i
Table of Contents	iii-iv
Authority Officials	v
Letter of Transmittal	vii-ix
Organizational Chart	xi
Certificate of Achievement for Excellence in Financial Reporting	xiii
<b><u>Financial Section</u></b>	
Independent Auditors' Report	1-3
Management's Discussion and Analysis	5-11
<b><u>Basic Financial Statements</u></b>	
Statements of Net Position	15-16
Statements of Revenues, Expenses and Changes in Net Position	17
Statements of Cash Flows	18
Notes to Financial Statements	19-69
<b><u>Required Supplementary Information</u></b>	
Schedule of Changes in Net Pension Liability (Asset) and Related Ratios	72
Schedule of Employer Contributions	73
Notes to Required Supplementary Information	74
Schedule of Authority's Share of Net OPEB Liability—Group Life Insurance Program	75
Schedule of Employer Contributions—Group Life Insurance Program	76
Notes to Required Supplementary Information—Group Life Insurance Program	77-78

---

---

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Comprehensive Annual Financial Report Years Ended June 30, 2018 and 2017

---

### Table of Contents

	<u>Page</u>
<b><u>Statistical Section</u></b>	
Table 1 Net Position by Component	81
Table 2 Changes in Net Position	82-83
Table 3 Schedule of Revenues	84
Table 4 Schedule of Rates	85
Table 5 Schedule of New Connections	86
Table 6 Schedule of Water Processed and Wastewater Treated	87
Table 7 Schedule of Operating Expenses	88
Table 8 Outstanding Debt by Type	89
Table 9 Revenue Bond Coverage	90
Table 10 Demographic and Economic Statistics	91
Table 11 Principal Employers	92
Table 12 Operating and Capital Indicators	93
Table 13 Principal Water and Sewer Customers	94-95
<b><u>Compliance Section</u></b>	
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	97-98

---

## **OFFICERS AND BOARD MEMBERS**

Michael J. Focazio – Chairperson  
William G. Downey – Vice-Chairperson  
Raymond E. Graham – Secretary/Treasurer  
L. Paul Blackmer, Jr.  
Steven G. Cosby

## **AUDIT COMMITTEE**

L. Paul Blackmer, Jr.  
William G. Downey

## **SENIOR MANAGEMENT**

Benjamin R. Shoemaker, Executive Director  
Cheryl St. Amant, Associate Executive Director  
Deborah A. Whitley, Director of Finance





FAUQUIER COUNTY

**WATER & SANITATION AUTHORITY**

7172 Kennedy Road • Vint Hill Farms

Warrenton, Virginia 20187-3907

Phone (540) 349-2092 • Fax (540) 347-7689



November 5, 2018

Board of Directors of the  
Fauquier County Water and Sanitation Authority  
Fauquier County, Virginia

Gentlemen:

The Comprehensive Annual Financial Report for the Fauquier County Water and Sanitation Authority (the Authority) for the year ended June 30, 2018 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.

Management is responsible, in all material respects, for the accuracy of this data and the completeness and fairness of these presentations, including all disclosures. We believe the data presents fairly the financial position and results of operations of the Authority for the year ended June 30, 2018.

Generally Accepted Accounting Principles require that management provide a narrative introduction, overview, and analysis to accompany the basic statements in the form of Management's Discussion and Analysis (MD&A). This transmittal letter is designed to complement the MD&A and should be read in conjunction with it. The Authority's MD&A is included in the Financial Section of this report, immediately following the report of the independent auditors.

*The Authority*

The Authority was created by a resolution of the Board of Supervisors of Fauquier County, Virginia in 1964 for a period of 50 years, and extended to 2025 in 1975. The Authority is chartered by the State Corporation Commission, and is an independent public body responsible for providing comprehensive county-wide water and sewer services.

The management of the Authority is vested in a board of five members appointed by the Board of Supervisors. The Authority Board appoints the Executive Director, who is responsible for the daily management of the Authority.

*Economic  
Conditions and  
Outlook*

The Authority is located in rural Fauquier County approximately 40 miles southwest of Washington, D.C., and 95 miles northwest of Richmond. The service area of the Authority is traversed by several highways providing access to the metropolitan area and surrounding jurisdictions. The Authority owns and operates fourteen public water systems and three wastewater (sewer) treatment plants; and operates an additional two water systems.

Local economy has continued to improve since the Recession in the late 2000s reflective in its population increase and unemployment rate decrease. Estimated population as of July 2018 is approximately 69,098. This is expected to exceed 70,032 by the year 2020, and 74,280 by the year 2025. Per the Virginia Employment Commission, as of July 2018, the total civilian labor force in Fauquier County was 37,563, of which 35,156 are employed, and 1,261 are unemployed. Unemployment is at its lowest rate in over 10 years at 2.8%, down from 3.3% in 2017.

The Authority provides water and/or sewer services to single and multi-family housing developments, county schools, a federal complex, and various shopping centers. The Authority continues to experience an increase in customer base and availability sales. Water and sewer connections grew by 133 and 134, respectively, in FY2018. Availability fee revenue increased by \$748 thousand in FY2018.

*Internal Control  
Structure and  
Budgetary  
Controls*

The Authority's management is responsible for establishing and maintaining internal controls. Estimates and judgments by management are required to assess the expected benefits and related costs of internal control policies and procedures. Internal controls are designed to provide reasonable, but not absolute, assurances regarding: (1) the safeguarding of assets against loss from unauthorized use or disposition; and (2) the reliability of financial records used to prepare financial statements that are free of any material misstatements. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the evaluation of costs and benefits require estimates and judgments made by management. Management reviews internal controls on a continuous basis.

The Finance Department prepares an annual budget for current revenue, expenses, and capital outlays. The proposed budget is reviewed by management, and submitted to the Board of Directors for approval.

The Authority controls current expenses at both the functional and operating division levels. Division managers are responsible for budgetary items that are controllable within their divisions. The Finance department is responsible for general Authority costs, as well as monitoring expenses by function for the Authority. Controlling all expenses at different levels strengthens the overall budgetary and management controls.

*Relevant  
Financial  
Policies*

Investments are made per a formal Investment Policy that seeks to safeguard principal, meet liquidity objectives, and seek fair value rates of return within the parameters of the *Code of Virginia*. Funds held for capital projects are invested in accordance with these objectives in addition to ensuring compliance with U.S. Treasury arbitrage regulations.

The state and federal governments enacted regulations dated December 31, 2010 on the nutrient quality of wastewater entering the Chesapeake Bay and its tributaries. The Authority implemented a two-phase plan to meet these regulatory requirements. The first-phase upgrades, completed in FY2012, allowed credit trading of nutrients between the plants to assist in meeting the regulatory requirements. The Authority estimates this process provided a ten to fifteen-year window before construction of the second phase of upgrades are required. The two-phase plan should produce the best effect on user rates to cover new debt service. Debt service in FY2018 is \$1.78 million and will reduce to \$931,335 in FY2030. The Authority will begin a review of phase two options in FY2019. When required, the Authority will begin phase two of upgrades on the Remington and Marshall wastewater treatment plants at a potential cost of \$25 million.

The Authority adopted a \$20 million, 5-year Capital Improvement Plan (CIP) in its FY2019 budget for water exploration, sources, storage, and treatment facilities. A \$12.6 million, 5-year Replacement and Renewal Program (R&R) was also adopted for repairs and upgrades to its existing water and sewer systems.

*Independent  
Audit*

The Virginia State Code requires that an external audit be performed annually. The Authority's financial statements for the year ended June 30, 2018 have been audited by Robinson, Farmer, Cox Associates, an independent firm of licensed certified public accountants. The fiscal year 2018 Independent Auditors' Report is in the financial section of this report.

*Awards*

The Governmental Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Fauquier County Water & Sanitation Authority for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2017. This is a prestigious national award recognizing conformance with the highest standards for preparation of state and local governmental financial reports.


To be awarded a Certificate of Achievement, a government must publish an easily readable, and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Said report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. The Authority believes our current comprehensive annual financial report conforms to the Certificate of Achievement Program requirements, and we are submitting the CAFR to the GFOA to determine its eligibility for another Certificate for FY2018.

*Acknowledgments*

The preparation of this report could not have been accomplished without the efficient and dedicated services of the Finance and Administration staff of the Authority. All members of the division have my sincere appreciation for their contributions to the preparation of this report. I would also like to thank the Executive Director and Board of Directors for their interest and support in planning and conducting the financial operations of the Authority in a responsible and progressive manner.

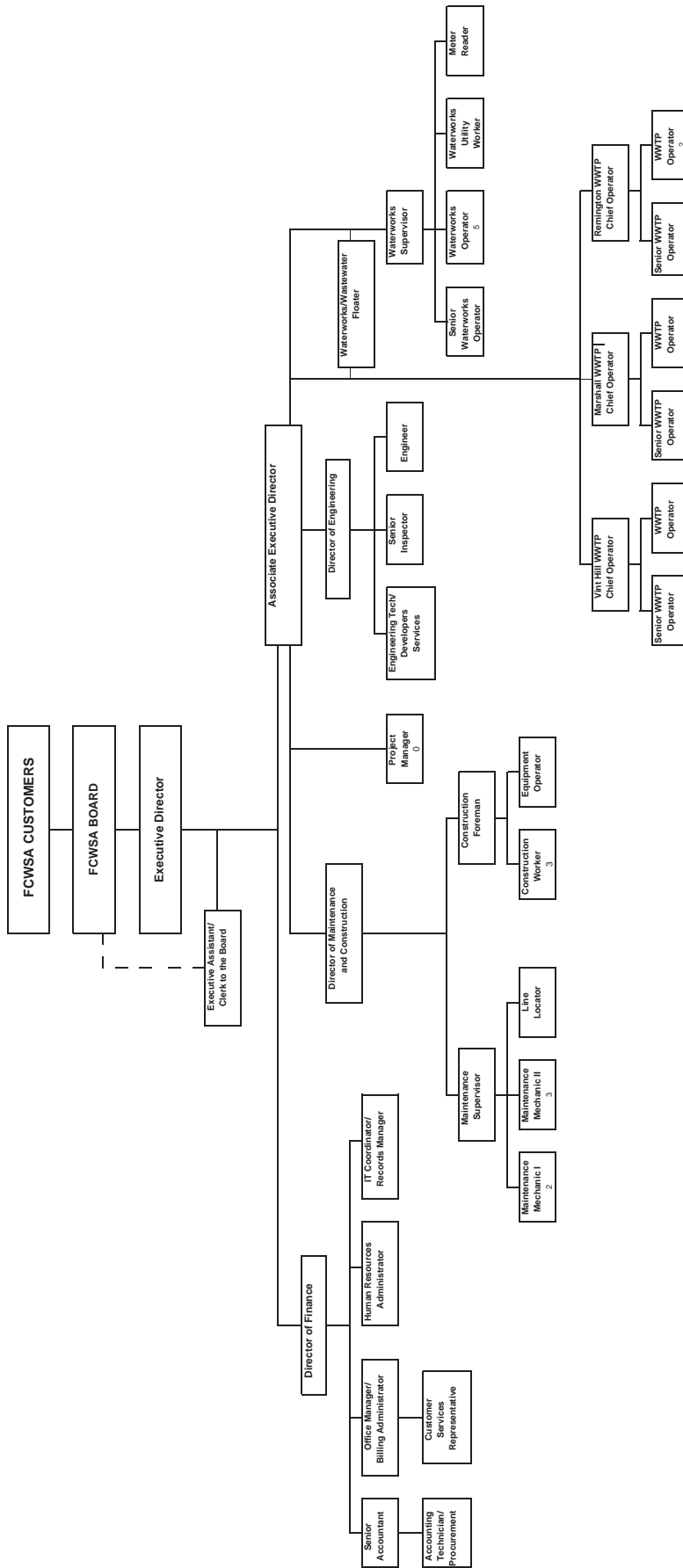
Respectfully submitted,

A handwritten signature in dark ink, reading "Deborah A. Whitley". The signature is written in a cursive style with a large, stylized initial 'D'.

Deborah A. Whitley  
Director of Finance

# FCWSA ORGANIZATION

F72018







Government Finance Officers Association

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

Presented to

**Fauquier County Water & Sanitation  
Authority, Virginia**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2017**

*Christopher P. Morill*

Executive Director/CEO





# ROBINSON, FARMER, COX ASSOCIATES

CERTIFIED PUBLIC ACCOUNTANTS

A PROFESSIONAL LIMITED LIABILITY COMPANY

## Independent Auditors' Report

**To The Honorable Members of the Board of Directors  
Fauquier County Water and Sanitation Authority  
Warrenton, Virginia**

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the business-type activities of Fauquier County Water and Sanitation Authority as of and for the years ended June 30, 2018 and 2017, 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.

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

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

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

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

## ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of the Fauquier County Water and Sanitation Authority, as of June 30, 2018 and 2017, and the changes in financial position, and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## ***Restatement of Beginning Balances***

As described in Note 14 to the financial statements, in 2018, the Fauquier County Water and Sanitation Authority restated beginning balances to reflect the requirements of GASB Statement No. 75. Our opinion is not modified with respect to this matter.

## ***Change in Accounting Principle***

As described in Note 14 to the financial statements, in 2018, the Fauquier County Water and Sanitation Authority adopted new accounting guidance, GASB Statement Nos. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, 85, *Omnibus 2017*, and 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. Our opinion is not modified with respect to this matter.

## ***Comparative Information***

As described in Note 14 to the financial statements, GASB Statement No. 75 was implemented prospectively resulting in a restatement of beginning net position. In the year of implementation, comparative information for the net OPEB liability and related items was unavailable. Therefore, the 2017 amounts related to OPEB have not been restated to reflect the requirements of GASB Statement No. 75. Our opinion is not modified with respect to this matter.

## ***Other Matters***

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 5-11, and schedules related to pension funding and Group Life Insurance Program OPEB on pages 72-78 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 Matters: (Continued)***

### ***Other Information***

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

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

### ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated October 22, 2018, on our consideration of the Fauquier County Water and Sanitation 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 solely 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 the effectiveness of Fauquier County Water and Sanitation Authority's 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 Fauquier County Water and Sanitation Authority's internal control over financial reporting and compliance.

*Robinson, Farmer, Cox Associates*

Charlottesville, Virginia  
October 22, 2018

This page intentionally left blank.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the Fauquier County Water and Sanitation Authority's (the Authority) financial performance provides a narrative overview of the financial activities of the Authority for the Fiscal Year (FY) ending June 30, 2018. The Authority's mission is to provide quality water and sewer services to its current and future customers. To accomplish this, the Authority set its FY2019 budget focus on customer service, water system upgrades, supervisory control and data acquisition (SCADA) upgrades, and wastewater inflow and infiltration (I&I) maintenance. We encourage readers to consider the information presented here in conjunction with the audited financial statements that follow this section.

### **FINANCIAL HIGHLIGHTS**

- The Authority Board approved \$2.7 million in adjustments to the FY2018 budget for Replacement and Renewal (R&R), and Capital Improvement Plan (CIP) projects;
- Construction in progress projects increased by \$1.986 million in FY2018; and Net Capital Assets increased by \$2.3 million;
- Net position as of June 30, 2017 and 2016 was restated by \$139,796 and \$50,675, respectively, for excess depreciation expense recorded in prior years;
- Net position as of June 30, 2017 was also restated by \$250,000 for the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*. As a result of restatement, net position as of June 30, 2017 decreased by \$110,204 from \$76,198,218 to \$76,088,014;
- Net position increased by \$5 million from \$76,088,014, as restated, to \$81,111,774;
- Total revenues, including capital contributions, were \$15,563,919; and total expenses were \$10,540,159;
- Net operating income was \$233,183 in FY2018. There was a net operating loss of \$530,122 in FY2017;
- The Authority has received unqualified audit opinions for over thirty years, and has received the Government Finance Officers Association's (GFOA) Certificate of Achievement for Excellence in Financial Reporting for the past eleven years.

### **OVERVIEW OF THE FINANCIAL STATEMENTS**

This comprehensive annual financial report (CAFR) is presented in three main sections. The Introductory Section includes the letter of transmittal, the GFOA Certificate of Achievement, a list of Authority Board members and officers, and an organizational chart. The Financial Section includes the Independent Auditors' Report, Management's Discussion and Analysis, the basic financial statements with related notes, and required supplementary information. The Statistical Section includes selected financial and demographic information about the Authority and the surrounding area.

There are three financial statements included in the Financial Section of this report – Statement of Net Position; Statement of Revenues, Expenses and Changes in Net Position; and Statement of Cash Flows. The Statement of Net Position includes the Authority's assets and liabilities using the accrual basis of accounting. It provides the basis for evaluating the capital structure of the Authority, and its liquidity and flexibility. All current and prior years' revenues and expenses are accounted for in the Statement of Revenues, Expenses and Changes in Net Position. This statement measures the

## **OVERVIEW OF THE FINANCIAL STATEMENTS: (Continued)**

performance of the Authority's operations over the past year, and can be used to determine whether the Authority has successfully recovered its costs through user fees and other charges. The Statement of Cash Flows reports the cash provided and used by operating activities, as well as other cash sources, such as investment income and cash payments for debt and capital additions. The notes to the financial statements provide additional information that is essential for a full understanding of the data provided in the statements.

## **FINANCIAL ANALYSIS**

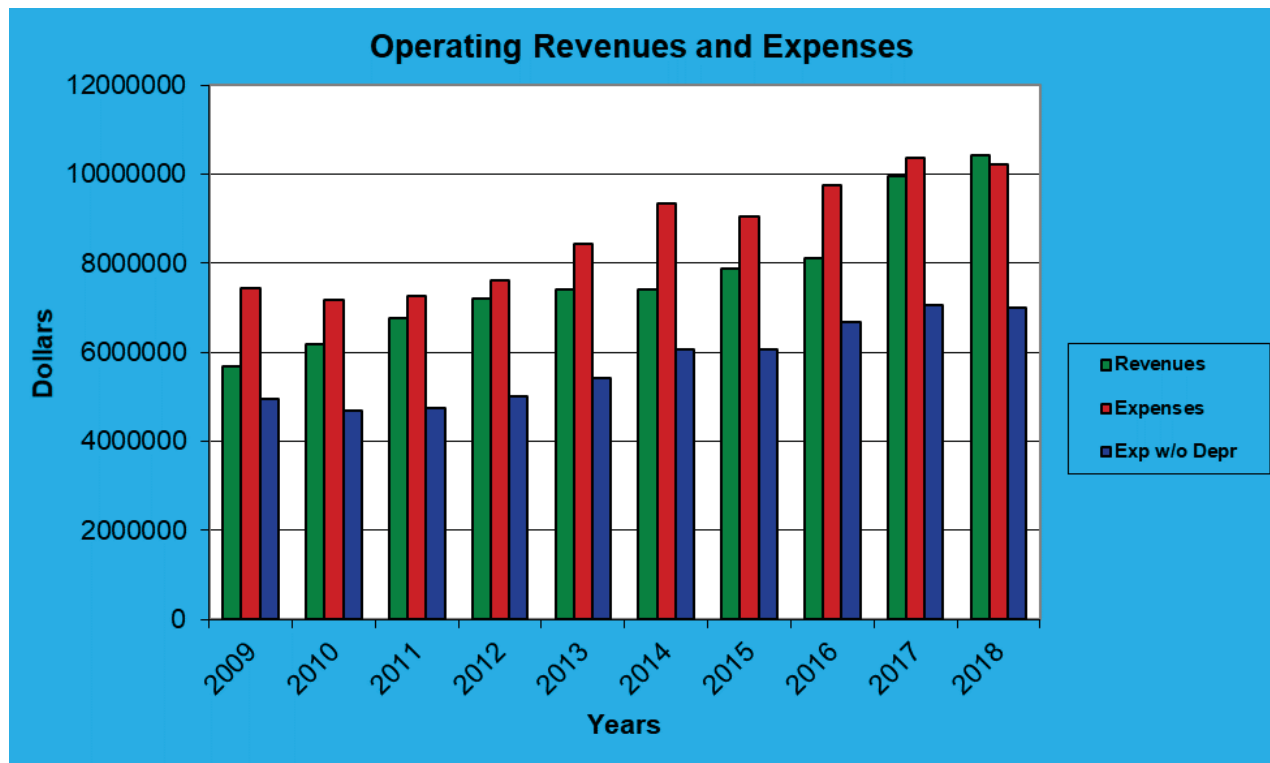
The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Authority's activities that determine if the overall financial position has improved during the year. These two statements help determine the financial health of the organization, and whether its financial position is improving or deteriorating. Non-financial factors such as economic conditions, population growth, and changes in governmental legislation need to be considered as well. The Authority's financial strength has continued to improve during FY2018, primarily due to increased availability fee revenues, as operating revenues are covering operating expenses as described in the following sections of this report.

**Net Position and Liabilities** -The Authority's **total net position** increased in FY2018 by \$5 million, or 6.6%, as compared to net position as of June 30, 2017 (as restated). Total net position increased in FY2017 by \$3.2 million, or 4.5%, as compared to net position as of June 30, 2016 (as restated). Total net position increased in FY2016 by \$5.5 million, or 7.2%, as compared to net position as of June 30, 2015. A significant portion of this increase was due to capital contributions of \$1.8, \$1.7, and \$4.7 million in FY2018, FY2017, and FY2016, respectively, as well as availability fees of \$3, \$2.3, and \$2.1 million in FY2018, FY2017, and FY2016, respectively. In FY2018 the **total liabilities** decreased by \$0.3 million, or 2.4%, from FY2017 as debt service was paid down. FY2017's total liabilities increased by \$6.5 million, or 64.5%, as a new revenue bond was obtained for projects at year end. In FY2016 total liabilities increased by \$0.5 million, or 5.5%, compared to FY2015. The following table depicts the Authority's assets and liabilities as of June 30, 2018, 2017, and 2016:

	<b>Net Position</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
Current and other assets	\$ 20,836,575	\$ 18,569,897	\$ 8,995,473
Capital assets	76,173,481	73,861,995	73,978,960
Deferred outflows of resources	338,780	538,263	209,539
Total assets and deferred outflows of resources	<u>\$ 97,348,836</u>	<u>\$ 92,970,155</u>	<u>\$ 83,183,972</u>
Noncurrent liabilities	\$ 12,825,570	\$ 14,510,919	\$ 8,224,587
Other liabilities	3,060,280	2,097,792	1,707,554
Deferred inflows of resources	351,212	23,430	181,253
Total liabilities and deferred inflows of resources	<u>\$ 16,237,062</u>	<u>\$ 16,632,141</u>	<u>\$ 10,113,394</u>
Net position:			
Net investment in capital assets	\$ 67,421,966	\$ 64,987,481	\$ 65,074,202
Restricted	369,386	468,724	-
Unrestricted	13,320,422	10,881,809	7,996,376
Total net position, as restated	<u>\$ 81,111,774</u>	<u>\$ 76,338,014</u>	<u>\$ 73,070,578</u>
Total liabilities, deferred inflows of resources and net position	<u>\$ 97,348,836</u>	<u>\$ 92,970,155</u>	<u>\$ 83,183,972</u>

## **FINANCIAL ANALYSIS: (Continued)**

**Operating Income** – In FY2018 the **Operating Revenues** were \$10.4 million, a 5.9% increase over FY2017. The increase reflects a 7% rate increase to users in year 2 of a five-year rate increase plan, voted in by the Board, after a rate study completed in late FY2016. In FY2017 Operating Revenues were \$9.8 million, a 21.2% increase over FY2016 because of the 9.5% rate increase to users in year 1 of the five-year plan. In FY2016, Operating Revenues were \$8.1 million, an increase of 3% over FY2015. In FY2018, the **Operating expenses** decreased to \$10.2 million, or 1.5%, from FY2017, allowing operating revenues to completely cover operating expenses. In FY2017, the Operating expenses increased to \$10.4 million (as restated), or 5.9%, over FY2016. Operating Expenses for FY2016 increased to \$9.8 million, or 8.2%, over FY2015. FY2018 saw a reduction in depreciation and fringe benefits from position vacancies. FY2017 and FY2016 saw an increase in personnel costs, legal fees, maintenance, and depreciation expenses. Depreciation expense, as restated, represents 31%, 32%, and 31%, of operating expense in FY2018, FY2017, and FY2016, respectively. The following chart depicts **Operating Revenues** as compared to **Operating Expenses**, with depreciation and **Operating Expenses without depreciation expense** during the last ten years.



As a not-for-profit governmental entity, the Authority's goal is to match revenues with expenses and not to generate a profit. Consequently, the Authority will generally experience a small loss or profit, neither of which significantly affects the financial condition of the organization.

The Authority had a rate study performed by Municipal & Financial Services Group in late FY2016, that determined rate increases were needed to cover CIP, R&R, rising operating costs, and debt service. As such, the Board voted in the five-year rate increase plan, with Year 1 – 9.5%, Year 2 – 7%, and Years 3-5 (FY2019-21) having planned user rate increases of 3% each. The additional rate adjustments will further strengthen the financial position of the organization, and allow the budget focus to remain on customer service and infrastructure.



## **FINANCIAL ANALYSIS: (Continued)**

The following table is a comparison of operating revenues, operating expenses, non-operating revenues and expenses, net income (loss), and capital contributions for the years ending June 30, 2018, 2017, and 2016.

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Operating revenues:</b>			
Water service	\$ 4,630,031	\$ 4,351,789	\$ 3,438,450
Sewer service	4,867,411	4,515,284	3,874,505
Septic service	364,114	387,223	337,780
Late charges	194,015	163,712	129,880
Other operating revenues	368,109	420,630	334,378
Total operating revenues	<u>\$ 10,423,680</u>	<u>\$ 9,838,638</u>	<u>\$ 8,114,993</u>
<b>Operating expenses:</b>			
Salaries	\$ 3,167,950	\$ 3,135,875	\$ 2,848,966
Fringe benefits	872,536	984,579	1,138,118
General and administrative	639,812	584,324	556,190
Operations and maintenance	2,311,448	2,359,475	2,128,639
Depreciation expense	3,198,751	3,304,507	3,063,090
Total operating expenses	<u>\$ 10,190,497</u>	<u>\$ 10,368,760</u>	<u>\$ 9,735,003</u>
<b>Net operating income (loss)</b>	<u>\$ 233,183</u>	<u>\$ (530,122)</u>	<u>\$ (1,620,010)</u>
<b>Nonoperating revenue and expenses:</b>			
Availability fees	\$ 3,043,318	\$ 2,295,031	\$ 2,095,670
Interest earned	221,570	81,424	31,869
Interest expense	(349,662)	(250,894)	(168,652)
Net nonoperating revenue	<u>\$ 2,915,226</u>	<u>\$ 2,125,561</u>	<u>\$ 1,958,887</u>
Net income (loss) before capital contributions	\$ 3,148,409	1,595,439	338,877
<b>Capital Contributions</b>	<u>1,875,351</u>	<u>1,671,997</u>	<u>4,689,932</u>
Change in net position	\$ 5,023,760	\$ 3,267,436	\$ 5,028,809
<b>Net position, at beginning of year, as restated</b>	<u>76,088,014</u>	<u>73,070,578</u>	<u>68,041,769</u>
<b>Net position, at end of year</b>	<u><u>\$ 81,111,774</u></u>	<u><u>\$ 76,338,014</u></u>	<u><u>\$ 73,070,578</u></u>

## **CAPITAL ASSETS AND LONG-TERM DEBT**

**Capital Assets** - The increase in capital assets for FY2018 is the result of completed R&R projects, and contributed capital completed and placed in service. The detail of additions to capital assets being depreciated is as follows:

Contributed Capital	\$ 1,875,351
Vehicles (net of deletions)	48,926
R&R Projects	<u>1,496,649</u>
Capital Asset Increase FY2018:	<u><u>3,420,926</u></u>



## **CAPITAL ASSETS AND LONG-TERM DEBT: (Continued)**

The largest construction-in-progress projects as of June 30, 2018, were:

New Baltimore Baldwin Ridge Tank	\$	795,447
I&I Projects		662,858
Marshall Salem Well #3		350,886
Rock Springs Line Replacement		294,192
New Baltimore G-4 Well		193,041
New Baltimore Terranova Well Treatment		186,611

The following table shows capital asset balances for the fiscal years ending June 30, 2018, 2017, and 2016:

	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>
Land	\$ 651,060	\$ 651,060	\$ 651,060
Construction in progress	3,212,677	1,225,809	1,147,619
Structures and improvements	56,239,263	54,465,503	53,773,398
Infrastructure	55,066,662	53,545,285	51,458,242
Vehicles	1,175,406	1,126,480	1,050,503
Machinery and equipment	<u>13,661,994</u>	<u>13,585,131</u>	<u>13,895,843</u>
Total Property & Equipment	\$ 130,007,062	\$ 124,599,268	\$ 121,976,665
Less: Accumulated Depreciation (as restated)	<u>53,833,581</u>	<u>50,737,273</u>	<u>47,997,705</u>
Net property & equipment	<u>\$ 76,173,481</u>	<u>\$ 73,861,995</u>	<u>\$ 73,978,960</u>

Additional information on the capital assets can be reviewed in Note 6.

**Cash Balances** - The Authority's Board and Management determined that a multi-year rate setting plan would provide the Authority a basis for budgeting operating expenses and capital projects. The Board also determined a portion of the water and sewer availability fees would be set aside to cover future CIP and R&R projects. By analyzing rates on an annual basis, the five-year cash flow is used to indicate the probability of, or necessity for, future rate adjustments. The Commonwealth of Virginia requires the advertisement of new rates, and a public rate hearing in the event additional rate adjustments are deemed necessary. The following are the projected ending cash balances for the next five years:

	<b><u>Uncommitted Cash Balances</u></b>	<b><u>Voluntary Cash Reserves</u></b>
FY2019	\$ 3,331,191	\$ 5,101,260
FY2020	3,322,073	5,145,840
FY2021	2,579,607	5,176,520
FY2022	1,906,694	5,200,200
FY2023	1,802,684	5,223,880

These projected cash flow balances presume continued economic recovery, and availability fee revenues in future years. In addition, the Authority may approve cash funding for some CIP & R&R projects which will affect the cash balances.

## Capital Projects -

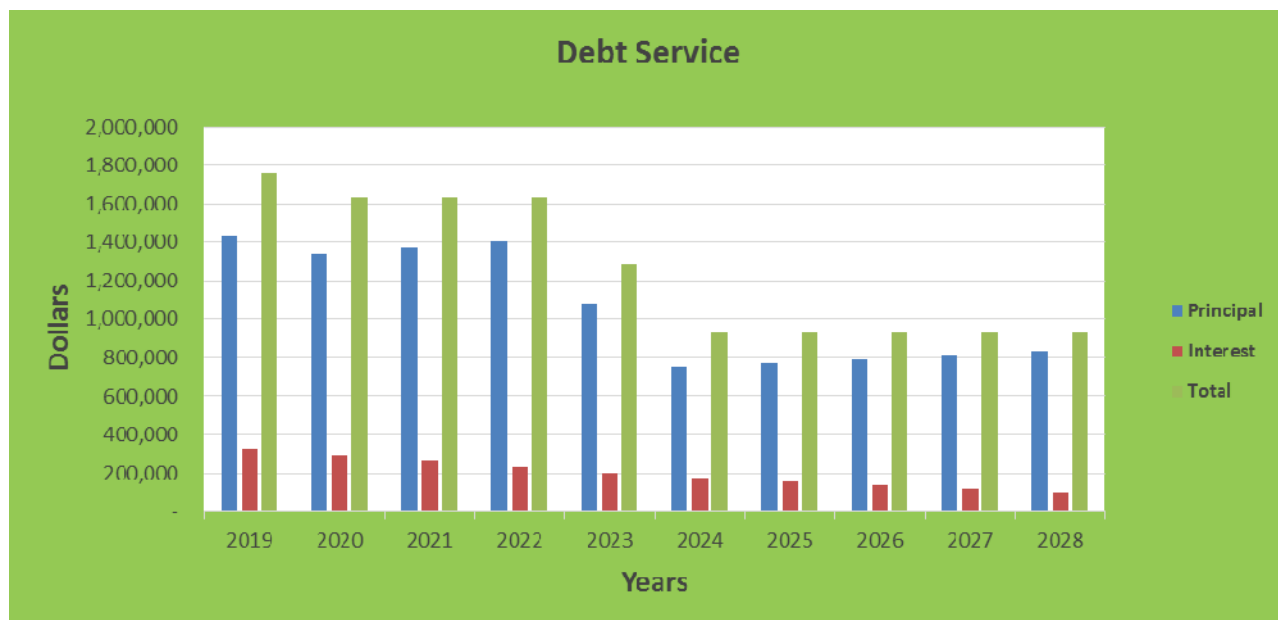
Below is a summary schedule of our planned capital projects (CIP) and replacement and renewals (R&R) for the next five years:

Five Year Capital Improvement Program (FY 19 - 23)						
FY2019 Approved Budget						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	5 YR Totals
New Baltimore Supply - Wells	\$ 500,000	\$ 1,300,000	\$ 1,300,000	\$ -	\$ -	\$ 3,100,000
New Baltimore Storage - Tanks	1,500,000	-	-	-	-	1,500,000
New Baltimore - Treatment	1,036,028	600,000	-	-	-	1,636,028
New Baltimore - Exploratory	100,000	100,000	100,000	100,000	100,000	500,000
Bealeton Supply - Wells	-	-	-	1,300,000	1,300,000	2,600,000
Marshall Supply - Wells	2,340,000	-	-	-	-	2,340,000
Marshall - Exploratory	100,000	100,000	100,000	100,000	100,000	500,000
Vint Hill Interconnection	200,000	-	-	-	-	200,000
Opal Well and Storage Tank	-	2,600,000	2,600,000	-	-	5,200,000
The Plains Supply - Well	850,000	850,000	-	-	-	1,700,000
The Plains - Treatment	-	-	300,000	-	-	300,000
Bethel - Treatment	-	300,000	-	-	-	300,000
Botha - Treatment	-	-	-	300,000	-	300,000
<i>Total</i>	<u>\$ 6,626,028</u>	<u>\$ 5,850,000</u>	<u>\$ 4,400,000</u>	<u>\$ 1,800,000</u>	<u>\$ 1,500,000</u>	<u>\$ 20,176,028</u>
Five Year Replacement and Renewal Program (FY 19 - 23)						
FY 2019 Approved Budget						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	5 YR Totals
Maintenance Warehouse	\$ 100,000	\$ 350,000	\$ -	\$ -	\$ -	\$ 450,000
Security Upgrades	20,000	20,000	20,000	-	-	60,000
SCADA Maintenance	50,000	50,000	50,000	50,000	50,000	250,000
Generator Replacements	60,000	60,000	60,000	60,000	60,000	300,000
Arc Flash Analysis	50,000	50,000	50,000	50,000	50,000	250,000
Road Maintenance	20,000	20,000	20,000	20,000	20,000	100,000
As Built Project	50,000	-	-	-	-	50,000
Service District Utility Plan	250,000	-	-	-	-	250,000
Marstella Water System	250,000	350,000	680,000	680,000	-	1,960,000
Grapewood Pressure Relief	-	-	500,000	120,000	-	620,000
Mill Run Rehabilitation	-	100,000	-	-	-	100,000
Salem Water Line Upgrade	210,000	-	-	-	-	210,000
Green Meadows Electrical	60,000	-	-	-	-	60,000
Waterloo Rehabilitation	-	-	440,000	-	-	440,000
Water Sys. Condition Monitoring	-	50,000	-	-	-	50,000
AMI - Utility Management	-	50,000	-	-	-	50,000
Water Loss Study	40,000	-	-	-	-	40,000
Hydrotank Replacement Projects	60,000	60,000	60,000	60,000	-	240,000
Repair Well Houses	20,000	20,000	20,000	20,000	20,000	100,000
Upgrade Water Meters	70,000	70,000	70,000	70,000	70,000	350,000
Fire Hydrant Testing Program	108,000	-	-	-	-	108,000
Treatment Media Exchange	50,000	50,000	50,000	50,000	50,000	250,000
Water System Major Repl.	60,000	60,000	60,000	60,000	60,000	300,000
I&I Pipe Replacement	430,000	730,000	640,000	815,000	1,165,000	3,780,000
Remington Road and Manholes	200,000	200,000	-	-	-	400,000
Replace Centrifuge	-	-	500,000	-	-	500,000
Replace Belt Press	-	-	500,000	-	-	500,000
Well House Fencing	-	15,280	15,280	-	-	30,560
Lift Station I Improvements	100,000	-	-	-	-	100,000
Lift Station Improvements	10,000	10,000	10,000	10,000	10,000	50,000
Lift Station Pump Replacements	75,000	75,000	75,000	75,000	75,000	375,000
Wastewater System Major Repl.	60,000	60,000	60,000	60,000	60,000	300,000
<i>Total</i>	<u>\$ 2,403,000</u>	<u>\$ 2,450,280</u>	<u>\$ 3,880,280</u>	<u>\$ 2,200,000</u>	<u>\$ 1,690,000</u>	<u>\$ 12,623,560</u>

## **CAPITAL ASSETS AND LONG TERM DEBT: (Continued)**

### **Long-Term Debt –**

The Authority has six revenue bonds, totaling \$13,762,371, as of June 30, 2018. The Authority had no new borrowings in FY2018. The following graph provides detail of principal and interest amounts due on the revenue bonds over the next ten years:



More detailed information on the Authority's long-term obligations are presented in Note 8.

### **ECONOMIC FACTORS**

In FY2018, the Authority's non-cash revenue from developer contributions was \$1.8 million. The Authority received contributions of linear infrastructure, and a pumping station in the New Baltimore Service District. Also, the County contributed \$0.5 million to explore water sources and storage in the Opal area. Availability fee revenue has continued to grow over the past few years as the economy continues to recover. In FY2018, FY2017, and FY2016 availability fee revenues were \$3 million, \$2.3 million, and \$2.1 million, respectively. The Authority experienced comparative growth during these years, but will continue to forecast its revenues in a conservative manner. In addition, the Authority will continue to monitor its operational and capital requirements to ensure that water and sewer services will meet customer needs.

The Authority's rates, fees, and other charges are structured to produce sufficient revenue to service debt, and to meet all operational expenses. While user rates met these goals in FY2018, the effects of inflation, cost increases due to regulatory changes, and the need to establish set-aside funds to continue to cover the costs of capital replacement support the previously adopted rate increases through FY2021.

### **REQUEST FOR INFORMATION**

The financial report is intended to provide customers, note holders, and creditors with a general overview of the Authority's financial position, and to demonstrate its ability to provide services to its customers. Questions concerning information provided in this report, or request for additional financial information should be directed to the Director of Finance, Fauquier County Water and Sanitation Authority, by mail or in person at 7172 Kennedy Road, Warrenton, Virginia, 20187, by telephone at (540) 349-2092, or by visiting the Authority's website at [www.fcwsa.org](http://www.fcwsa.org).

This page intentionally left blank.

## Basic Financial Statements

This page intentionally left blank.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Statements of Net Position  
At June 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>
<b>ASSETS</b>		
<b>Current Assets:</b>		
Cash and cash equivalents	\$ 13,192,967	\$ 9,731,893
Accounts receivable (net of allowance for doubtful accounts)	1,491,936	1,340,205
Due from other governments	119,922	147,022
Prepaid items	<u>82,822</u>	<u>252,480</u>
<b>Total current assets</b>	<b>\$ 14,887,647</b>	<b>\$ 11,471,600</b>
<b>Noncurrent Assets:</b>		
<b>Restricted Assets:</b>		
Cash and cash equivalents:		
Security deposits and construction meter deposits	\$ 203,275	\$ 172,250
Performance bonds	90,007	-
Opal water system	369,386	468,724
Unexpended bond proceeds	<u>5,192,812</u>	<u>6,457,323</u>
<b>Total restricted assets</b>	<b>\$ 5,855,480</b>	<b>\$ 7,098,297</b>
Net pension asset	<u>\$ 93,448</u>	<u>\$ -</u>
<b>Capital Assets:</b>		
Capital assets not being depreciated:		
Land	\$ 651,060	\$ 651,060
Construction in progress	3,212,677	1,225,809
Capital assets being depreciated:		
Structures and improvements	56,239,263	54,465,503
Infrastructure	55,066,662	53,545,285
Vehicles	1,175,406	1,126,480
Machinery and equipment	13,661,994	13,585,131
Accumulated depreciation	<u>(53,833,581)</u>	<u>(50,737,273)</u>
Net capital assets	<u>\$ 76,173,481</u>	<u>\$ 73,861,995</u>
<b>Total noncurrent assets</b>	<b>\$ 82,122,409</b>	<b>\$ 80,960,292</b>
<b>Total assets</b>	<b>\$ 97,010,056</b>	<b>\$ 92,431,892</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Pension related items	\$ 310,048	\$ 538,263
OPEB related items	<u>28,732</u>	<u>-</u>
<b>Total deferred outflows of resources</b>	<b>\$ 338,780</b>	<b>\$ 538,263</b>
<b>Total assets and deferred outflows of resources</b>	<b>\$ 97,348,836</b>	<b>\$ 92,970,155</b>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Statements of Net Position  
At June 30, 2018 and 2017 (Continued)

	<u>2018</u>	<u>2017</u>
<b>LIABILITIES</b>		
<b>Current Liabilities:</b>		
Accounts payable	\$ 1,091,050	\$ 291,568
Accrued interest	48,064	58,458
Retainage payable	166,015	127,661
Revenue bonds - current portion	1,433,462	1,418,375
Compensated absences - current portion	28,407	29,480
Liabilities payable from Restricted Assets:		
Performance bonds	90,007	-
Security deposits and construction meter deposits	<u>203,275</u>	<u>172,250</u>
<b>Total current liabilities</b>	<u>\$ 3,060,280</u>	<u>\$ 2,097,792</u>
<b>Noncurrent Liabilities:</b>		
Revenue bonds - less current portion	\$ 12,328,909	\$ 13,762,371
Compensated absences-less current portion	255,661	265,318
Net pension liability	-	483,230
Net OPEB liability	<u>241,000</u>	<u>-</u>
<b>Total noncurrent liabilities</b>	<u>\$ 12,825,570</u>	<u>\$ 14,510,919</u>
<b>Total liabilities</b>	<u>\$ 15,885,850</u>	<u>\$ 16,608,711</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Deferred amount on refunding	\$ 15,941	\$ 23,430
Pension related items	308,271	-
OPEB related items	<u>27,000</u>	<u>-</u>
<b>Total deferred inflows of resources</b>	<u>\$ 351,212</u>	<u>\$ 23,430</u>
<b>NET POSITION</b>		
Net investment in capital assets	\$ 67,421,966	\$ 64,987,481
Restricted:		
Opal water system	369,386	468,724
Unrestricted	<u>13,320,422</u>	<u>10,881,809</u>
<b>Total net position</b>	<u>\$ 81,111,774</u>	<u>\$ 76,338,014</u>
<b>Total liabilities, deferred inflows of resources and net position</b>	<u><u>\$ 97,348,836</u></u>	<u><u>\$ 92,970,155</u></u>

The accompanying notes to financial statements are an integral part of these statements.



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Statements of Revenues, Expenses, and Changes in Net Position Years Ended June 30, 2018 and 2017

	<b>2018</b>	<b>2017</b>
<b>Operating revenues:</b>		
Water service	\$ 4,630,031	\$ 4,351,789
Sewer service	4,867,411	4,515,284
Septic service	364,114	387,223
Late charges	194,015	163,712
Other operating revenues	368,109	420,630
Total operating revenues	<u>\$ 10,423,680</u>	<u>\$ 9,838,638</u>
<b>Operating expenses:</b>		
Salaries	\$ 3,167,950	\$ 3,135,875
Fringe benefits	872,536	984,579
General and administrative	639,812	584,324
Operations and maintenance	2,311,448	2,359,475
Depreciation expense	3,198,751	3,304,507
Total operating expenses	<u>\$ 10,190,497</u>	<u>\$ 10,368,760</u>
<b>Net operating income (loss)</b>	<u>\$ 233,183</u>	<u>\$ (530,122)</u>
<b>Nonoperating revenue (expenses):</b>		
Availability fees	\$ 3,043,318	\$ 2,295,031
Interest income	221,570	81,424
Interest expense	(349,662)	(250,894)
Net nonoperating revenue (expenses)	<u>\$ 2,915,226</u>	<u>\$ 2,125,561</u>
Net income (loss) before capital contributions	\$ 3,148,409	\$ 1,595,439
<b>Capital Contributions</b>	<u>1,875,351</u>	<u>1,671,997</u>
Change in net position	\$ 5,023,760	\$ 3,267,436
<b>Net position, beginning of year, as restated</b>	<u>76,088,014</u>	<u>73,070,578</u>
<b>Net position, end of year</b>	<u><u>\$ 81,111,774</u></u>	<u><u>\$ 76,338,014</u></u>

The accompanying notes to financial statements are an integral part of these statements.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Statements of Cash Flows Years Ended June 30, 2018 and 2017

	2018	2017
Cash flows from operating activities:		
Receipts from customers and users	\$ 10,330,074	\$ 9,640,255
Payments to suppliers for goods and services	(2,720,296)	(3,213,079)
Payments to and on behalf of employees for services	(4,104,702)	(4,184,496)
Net cash provided by (used for) operating activities	\$ 3,505,076	\$ 2,242,680
Cash flows from capital and related financing activities:		
Purchases of property, equipment and construction in progress	\$ (2,855,794)	\$ (1,900,699)
Interest payments	(367,545)	(260,741)
Principal payments on long-term debt	(1,418,375)	(3,224,688)
Capital contributions	-	500,000
Proceeds from long-term debt issued	-	9,532,969
Proceeds from availability fees	3,043,318	2,295,031
Net cash (used for) capital and related financing activities	\$ (1,598,396)	\$ 6,941,872
Cash flows from noncapital financing activities:		
Performance bond	\$ 90,007	\$ 25,000
Cash flows from investing activities:		
Interest income	\$ 221,570	\$ 81,424
Net increase (decrease) in cash and cash equivalents	\$ 2,218,257	\$ 9,290,976
Cash and cash equivalents at beginning of year	16,830,190	7,539,214
Cash and cash equivalents at end of year	\$ 19,048,447	\$ 16,830,190
Reconciliation of operating (loss) to net cash provided by (used for) operating activities:		
Cash flows from operations:		
Income (loss) from operating activities	\$ 233,183	\$ (530,122)
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation expense	3,198,751	3,304,507
Employee health contributions	-	-
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable	(151,731)	(199,262)
(Increase) decrease in due from other governments	27,100	(10,921)
(Increase) decrease in prepaid items	169,658	(98,265)
Increase (decrease) in compensated absences	(10,730)	(47,576)
(Increase) decrease in deferred outflows of resources - pension	228,215	(328,724)
Increase (decrease) in deferred inflows of resources - pension	308,271	(148,960)
(Increase) decrease in deferred outflows of resources - OPEB	(15,294)	-
Increase (decrease) in deferred inflows of resources - OPEB	27,000	-
Increase (decrease) in net pension liability / asset	(576,678)	461,218
Increase (decrease) in net OPEB liability	(25,000)	-
Increase (decrease) in operating accounts payable	61,306	(171,015)
Increase (decrease) in security deposits	31,025	11,800
Net cash provided by (used for) operating activities	\$ 3,505,076	\$ 2,242,680
Noncash investing, capital and financing activities		
Contributions of capital assets	\$ 1,875,351	\$ 1,171,997
Capitalized depreciation on self-constructed assets	-	6,555
(Increase) decrease in retainage payable for capital projects	(38,354)	(12,265)
Reconciliation of Cash:		
Cash and cash equivalents	\$ 13,192,967	\$ 9,731,893
Restricted cash and cash equivalents	5,855,480	7,098,297
Total	\$ 19,048,447	\$ 16,830,190

The accompanying notes to financial statements are an integral part of these statements.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017

---

## NOTE 1—BASIS OF PRESENTATION:

---

### A. Organization and Purpose

The Fauquier County Water and Sanitation Authority was created by the Fauquier County Board of Supervisors, pursuant to the provisions of the Virginia Water and Sanitation Authorities Act, Section 15.2-5100 et. seq. of the Code of Virginia, 1950, as amended. The by-laws and rules for the transaction of the business of the Fauquier County Water and Sanitation Authority are made pursuant to authority vested in this Authority by the general provisions of the Virginia Water and Waste Authorities Act. The Authority is authorized to acquire, construct, operate, and maintain an integrated water and sewer system for Fauquier County, Virginia.

### B. Financial Reporting Entity

The Fauquier County Water and Sanitation Authority has determined that it is a related organization to Fauquier County in accordance with Governmental Accounting Standards Board Statement 14. The Authority is a legally separate organization whose Board members are appointed by the Fauquier County Board of Supervisors. Since the Board of Supervisors cannot impose its will on the Authority and since there is no potential financial benefit (or burden) in the relationship, the Board of Supervisors is not financially accountable for the Authority. Accordingly, the Authority is not considered a component unit of the County.

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

---

### A. Basic Financial Statements

Since the Authority is only engaged in business-type activities, it is required to present only the financial statements required for enterprise funds. For the Authority, the basic financial statements and required supplementary information consist of:

- Management's discussion and analysis
- Enterprise fund financial statements
  - Statement of Net Position
  - Statement of Revenues, Expenses, and Changes in Net Position
  - Statement of Cash Flows
  - Notes to Financial Statements
- Schedule of Changes in Net Pension Liability (Asset) and Related Ratios
- Schedule of Employer Contributions
- Notes to Required Supplementary Information
- Schedule of Authority's Share of Net OPEB Liability
- Schedule of Employer Contributions - Group Life Insurance Program
- Notes to Required Supplementary Information - Group Life Insurance Program

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### **B. Basis of Accounting**

The Authority operates as an enterprise fund and its accounts are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned, and expenses are recorded as liabilities when incurred, without regard to receipt or payment of cash. The Authority accrues revenue for services rendered but not yet billed at the end of the fiscal year.

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for sales and services. The Authority also recognizes as operating revenue the portion of availability charges intended to recover the cost of connecting new customers to the system. Operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

### **C. Cash and Cash Equivalents**

The Authority's cash and cash equivalents consist of cash on hand, demand deposits, certificates of deposit and short-term investments with original maturities of three months or less from the date of acquisition.

### **D. Restricted Assets**

The Authority records, security deposit amounts received from customers as restricted assets on the statement of net position.

Also, certain proceeds of the Authority's revenue bonds are classified as restricted assets on the statement of net position because they are to be expended on various water and sewer capital projects and/or used for certain purposes.

### **E. Capital Assets**

Capital assets include property, plant, and equipment and infrastructure. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$3,500, except for water meters for new construction, and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at estimated acquisition value at the date of donation.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### E. Capital Assets: (Continued)

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend the asset's life are not capitalized.

Major outlays for capital assets are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities is included as part of the capitalized value of the assets constructed. No Interest was capitalized to construction projects during the current or prior fiscal year. Depreciation expense totaled \$3,198,751 for the year ended June 30, 2018 and \$3,311,062 for the year ended June 30, 2017. A portion of depreciation expense, \$6,555 was capitalized as part of self-constructed assets for the year ended June 30, 2017.

Property and equipment is being depreciated using the straight line method over the following estimated useful lives:

<u>Assets</u>	<u>Years</u>
Treatment plant	28 years
Buildings and improvements	28 years
Water and sewer lines	50 years
Meters	10-15 years
Vehicles	6 years
Other furnishings and equipment	5-10 years

### F. Other Significant Accounting Policies

- All trade receivables are shown net of an allowance for doubtful accounts. The Authority calculates its allowance for doubtful accounts using historical collection data and, in certain cases, specific account analysis. The allowance totaled \$81,569 at June 30, 2018 and \$72,421 for the year ended June 30, 2017.
- Investments - Money market investments, participating interest-earning investment contracts (repurchase agreements) that have a remaining maturity at time of purchase of one year or less, nonparticipating interest-earning investment contracts (nonnegotiable certificates of deposit (CDs)) and external investment pools are measured at amortized cost. All other investments are stated at fair value.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### **G. Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

### **H. Net Position**

Net position is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, less accumulated depreciation less any outstanding debt related to the acquisition, construction or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component of net position.

### **I. Net position flow assumption**

Sometimes the government will fund outlays for a particular purpose from both restricted (e.g., restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to report as restricted – net position and unrestricted – net position in the financial statements, a flow assumption must be made about the order in which the resources are considered to be applied. It is the Authority's position to consider restricted - net position to have been depleted before unrestricted – net position is applied.

### **J. Compensated Absences**

The Authority accrues compensated absences (annual and sick leave benefits) when vested. The current and noncurrent portions of the compensated absences liabilities are recorded as accrued liabilities.

### **K. Restatement / Reclassifications**

Certain amounts in previously issued financial statements have been restated to conform to current year classifications.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### L. Non-exchange Transactions

The Authority receives non-exchange transactions from developers of property, lines and improvements. These non-exchange transactions are considered capital contributions on the statements of revenues, expenses and changes in net position.

### M. Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has several items that qualify for reporting in this category. These items are comprised of certain items related to the measurement of the net pension asset/liability and net OPEB asset/liability and/or contributions to the pension and OPEB plans made during the current year and subsequent to the net pension asset/liability and net OPEB asset/liability measurement date. For more detailed information on these items, reference the related notes.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has multiple items that qualify for reporting in this category. One item is the deferred amount on refunding debt. In addition, certain items related to the measurement of the net pension asset/liability and net OPEB asset/liability are reported as deferred inflows of resources. For more detailed information on these items, reference the related notes.

### N. 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 Retirement Plan and the additions to/deductions from the Authority's Retirement Plan's net fiduciary position have been determined on the same basis as they were reported by the Virginia Retirement System (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.



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### O. OPEB

#### ***Group Life Insurance***

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

### P. Upcoming Pronouncements

Statement No. 83, *Certain Asset Retirement Obligations*, addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. This Statement establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for AROs. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018.

Statement No. 84, *Fiduciary Activities*, establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. This Statement also provides for recognition of a liability to the beneficiaries in a fiduciary fund when an event has occurred that compels the government to disburse fiduciary resources. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

---

### P. Upcoming Pronouncements: (Continued)

Statement No. 87, *Leases*, increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*, clarifies which liabilities governments should include when disclosing information related to debt. It defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. The Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. For notes to financial statements related to debt, it requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018.

Management is currently evaluating the impact these standards will have on the financial statements when adopted.

## NOTE 3—DEPOSITS AND INVESTMENTS:

---

### Deposits

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the "Act") Section 2.2-4400 et. seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial Institutions may choose between two collateralization methodologies and depending upon that choice will pledge collateral that ranges in amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 3—DEPOSITS AND INVESTMENTS: (CONTINUED)

---

### Investments

Statutes authorize the Authority to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, “prime quality” commercial paper and certain corporate notes, banker’s acceptances, repurchase agreements and the State Treasurer’s Local Government Investment Pool (LGIP).

### Credit Risk of Debt Securities

State statutes require that commercial paper have a short-term debt rating of no less than “A-1” (or its equivalent) from at least two of the following; Moody’s Investors Service, Standard & Poor’s and Fitch Investor’s Service. Corporate notes, negotiable Certificates of Deposit and bank deposit notes maturing in less than one year must have a short-term debt rating of at least “A-1” by Standard & Poor’s and “P-1” by Moody’s Investor Service. Notes having a maturity of greater than one year must be rated “AA” by Standard & Poor’s and “Aa” by Moody’s Investor Service. The Authority’s rated debt investments as of June 30, 2018 were rated by Standard & Poor’s and/or an equivalent national rating organization and the ratings are presented below using the Standard & Poor’s rating scale.

<b>Authority's Rated Debt Investments' Values</b>	
<b>Rated Debt Investments</b>	<b>Fair Quality Ratings AAAm</b>
Local Government Investment Pool	\$ 3,190,322
Virginia State Non-Arbitrage Program	5,295,920
Total	<u>\$ 8,486,242</u>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 3—DEPOSITS AND INVESTMENTS: (CONTINUED)

### External Investment Pools: (Continued)

The value of the positions in the external investment pools (Local Government Investment Pool and State Non-Arbitrage Pool) is the same as the value of the pool shares. As LGIP and SNAP are not SEC registered, regulatory oversight of the pool rests with the Virginia State Treasury. LGIP and SNAP are amortized cost basis portfolios under the provisions of GASB Statement No. 79. There are no withdrawal limitations or restrictions imposed on participants.

### Interest Rate Risk

Interest rate risk is defined as the risk that changes in interest rates will adversely affect the fair value of an investment.

Investment Maturities (in years)		
Investment type	Fair Value	Less than 1 yr
Local Government Investment Pool	\$ 3,190,322	\$ 3,190,322
Virginia State Non-Arbitrage Program	5,295,920	5,295,920
Total	<u>\$ 8,486,242</u>	<u>\$ 8,486,242</u>

## NOTE 4—RESTRICTED ASSETS:

Restricted assets and net position at June 30, 2018 and 2017 consist of the following:

	Balance June 30, 2018	Balance June 30, 2017
Restricted Assets:		
Security deposits and construction meter deposits	\$ 203,275	\$ 172,250
Performance bonds	90,007	-
Opal water system	369,386	468,724
Unexpended bond proceeds	<u>5,192,812</u>	<u>6,457,323</u>
Total restricted assets	\$ 5,855,480	\$ 7,098,297
Restricted net position:		
Less:		
Security deposits and construction meter deposits	(203,275)	(172,250)
Performance bonds	(90,007)	-
Unexpended bond proceeds	<u>(5,192,812)</u>	<u>(6,457,323)</u>
Total restricted net position	<u>\$ 369,386</u>	<u>\$ 468,724</u>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 5—DUE TO/FROM OTHER GOVERNMENTS:

At June 30, 2018 and 2017, respectively, the Authority has receivables from other governments as follows:

	<b>Balance June 30, 2018</b>	<b>Balance June 30, 2017</b>
Fauquier County	\$ 119,922	\$ 147,022
Total	<u>\$ 119,922</u>	<u>\$ 147,022</u>

## NOTE 6—CAPITAL ASSETS:

### Property and Equipment

The following is a summary of changes to property and equipment for the year ending June 30, 2018:

	<b>Balance July 1, 2017</b>	<b>Additions</b>	<b>Deletions</b>	<b>Balance June 30, 2018</b>
Capital assets, not being depreciated:				
Land	\$ 651,060	\$ -	\$ -	\$ 651,060
Construction in progress	<u>1,225,809</u>	<u>2,643,517</u>	<u>656,649</u>	<u>3,212,677</u>
Total capital assets not being depreciated	<u>\$ 1,876,869</u>	<u>\$ 2,643,517</u>	<u>\$ 656,649</u>	<u>\$ 3,863,737</u>
Capital assets being depreciated:				
Structures and improvements	\$ 54,465,503	\$ 1,773,760	\$ -	\$ 56,239,263
Infrastructure	53,545,285	1,521,377	-	55,066,662
Vehicles	1,126,480	128,090	79,164	1,175,406
Machinery and equipment	<u>13,585,131</u>	<u>100,142</u>	<u>23,279</u>	<u>13,661,994</u>
Total capital assets being depreciated	<u>\$ 122,722,399</u>	<u>\$ 3,523,369</u>	<u>\$ 102,443</u>	<u>\$ 126,143,325</u>
Accumulated depreciation:				
Structures and improvements	\$ 22,501,938	\$ 1,856,278	\$ -	\$ 24,358,216
Infrastructure	14,907,747	1,092,047	-	15,999,794
Vehicles	864,434	61,901	79,164	847,171
Machinery and equipment	<u>12,463,154</u>	<u>188,525</u>	<u>23,279</u>	<u>12,628,400</u>
Total accumulated depreciation, as restated	<u>\$ 50,737,273</u>	<u>\$ 3,198,751</u>	<u>\$ 102,443</u>	<u>\$ 53,833,581</u>
Total capital assets being depreciated, net, as restated	<u>\$ 71,985,126</u>	<u>\$ 324,618</u>	<u>\$ -</u>	<u>\$ 72,309,744</u>
Business-type activities capital assets, net, as restated	<u>\$ 73,861,995</u>	<u>\$ 2,968,135</u>	<u>\$ 656,649</u>	<u>\$ 76,173,481</u>

Depreciation expense for the year ended June 30, 2018 totaled \$3,198,751.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 6—CAPITAL ASSETS: (CONTINUED)

### Property and Equipment: (Continued)

The following is a summary of changes to property and equipment for the year ending June 30, 2017:

	Balance July 1, 2016	Additions	Deletions	Balance June 30, 2017
Capital assets, not being depreciated:				
Land	\$ 651,060	\$ -	\$ -	\$ 651,060
Construction in progress	1,147,619	1,194,433	1,116,243	1,225,809
Total capital assets not being depreciated	\$ 1,798,679	\$ 1,194,433	\$ 1,116,243	\$ 1,876,869
Capital assets being depreciated:				
Structures and improvements	\$ 53,773,398	\$ 692,105	\$ -	\$ 54,465,503
Infrastructure	51,458,242	2,087,043	-	53,545,285
Vehicles	1,050,503	75,977	-	1,126,480
Machinery and equipment	13,895,843	260,782	571,494	13,585,131
Total capital assets being depreciated	\$ 120,177,986	\$ 3,115,907	\$ 571,494	\$ 122,722,399
Accumulated depreciation:				
Structures and improvements	\$ 20,675,851	\$ 1,826,087	\$ -	\$ 22,501,938
Infrastructure	13,857,441	1,050,306	-	14,907,747
Vehicles	815,196	49,238	-	864,434
Machinery and equipment	12,649,217	385,431	571,494	12,463,154
Total accumulated depreciation, as restated	\$ 47,997,705	\$ 3,311,062	\$ 571,494	\$ 50,737,273
Total capital assets being depreciated, net, as restated	\$ 72,180,281	\$ (195,155)	\$ -	\$ 71,985,126
Business-type activities capital assets, net, as restated	\$ 73,978,960	\$ 999,278	\$ 1,116,243	\$ 73,861,995

Depreciation expense for the year ended June 30, 2017 totaled \$3,311,062.

Computation of net investment in capital assets:

	Balance June 30, 2018	Balance June 30, 2017
Net capital assets	\$ 76,173,481	\$ 73,861,995
Revenue bonds	(13,762,371)	(15,180,746)
Debt proceeds received but unexpended on capital assets	5,192,812	6,457,323
Retainage payable	(166,015)	(127,661)
Deferred amount on refunding	(15,941)	(23,430)
Net investment in capital assets	\$ 67,421,966	\$ 64,987,481

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 6—CAPITAL ASSETS: (CONTINUED)

The following is a summary of capital project activity for the fiscal year ending June 30, 2018 and 2017:

	<b>Balance July 1, 2017</b>	<b>Additions</b>	<b>Deletions</b>	<b>Balance June 30, 2018</b>
New Baltimore Water Tank	\$ 248,566	\$ 546,880	\$ -	\$ 795,446
I & I Remington and Marshall	474,436	188,422	-	662,858
Marshall Salem Well	41,151	309,735	-	350,886
Rock Springs Line Replacement	-	294,192	-	294,192
Miscellaneous projects	<u>461,656</u>	<u>1,304,288</u>	<u>656,649</u>	<u>1,109,295</u>
Total construction in progress	<u>\$ 1,225,809</u>	<u>\$ 2,643,517</u>	<u>\$ 656,649</u>	<u>\$ 3,212,677</u>
	<b>Balance July 1, 2016</b>	<b>Additions</b>	<b>Deletions</b>	<b>Balance June 30, 2017</b>
New Baltimore Water Tank	\$ 103,954	\$ 144,612	\$ -	\$ 248,566
I & I Remington and Marshall	196,049	278,387	-	474,436
Schoolhouse road project	568,910	260,761	829,671	-
Miscellaneous projects	<u>278,706</u>	<u>510,673</u>	<u>286,572</u>	<u>502,807</u>
Total construction in progress	<u>\$ 1,147,619</u>	<u>\$ 1,194,433</u>	<u>\$ 1,116,243</u>	<u>\$ 1,225,809</u>

## NOTE 7—LONG-TERM OBLIGATIONS:

The following is a summary of changes in long-term obligation transactions for the year ended June 30, 2018 and 2017:

<b>Description</b>	<b>Restated Beginning Balance July 1, 2017</b>	<b>Issuances/ Additions</b>	<b>Retirements/ Deletions</b>	<b>Ending Balance June 30, 2018</b>	<b>Due Within One Year</b>
Revenue Bonds	\$ 15,180,746	\$ -	\$ 1,418,375	\$ 13,762,371	\$ 1,433,462
Net OPEB liability	266,000	18,000	43,000	241,000	-
Compensated absences	<u>294,798</u>	<u>88,439</u>	<u>99,169</u>	<u>284,068</u>	<u>28,407</u>
Total	<u>\$ 15,741,544</u>	<u>\$ 106,439</u>	<u>\$ 1,560,544</u>	<u>\$ 14,287,439</u>	<u>\$ 1,461,869</u>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 7—LONG-TERM OBLIGATIONS: (CONTINUED)

Description	Beginning Balance July 1, 2016	Issuances/ Additions	Retirements/ Deletions	Ending Balance June 30, 2017	Due Within One Year
Revenue Bonds	\$ 8,872,465	\$ 9,532,969	\$ 3,224,688	\$ 15,180,746	\$ 1,418,375
Net pension liability	22,012	871,606	410,388	483,230	-
Compensated absences	247,222	84,874	37,298	294,798	29,480
Total	\$ <u>9,141,699</u>	\$ <u>10,489,449</u>	\$ <u>3,672,374</u>	\$ <u>15,958,774</u>	\$ <u>1,447,855</u>

Annual requirements to amortize long-term obligations are as follows:

Year Ending June 30,	Revenue Bonds	
	Principal	Interest
2019	\$ 1,433,462	\$ 329,044
2020	1,339,109	295,404
2021	1,370,741	263,772
2022	1,403,136	231,377
2023	1,083,787	199,134
2024	753,936	177,396
2025	773,383	157,948
2026	793,333	137,998
2027	813,798	117,534
2028	834,791	96,540
2029	856,327	75,005
2030	878,418	52,913
2031	705,133	31,575
2032	<u>723,017</u>	<u>12,930</u>
Total	\$ <u>13,762,371</u>	\$ <u>2,178,570</u>



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 7—LONG-TERM OBLIGATIONS: (CONTINUED)

Details of long-term obligations as of June 30, 2018 and 2017 are as follows:

	<u>2018</u>	<u>2017</u>
<b>Revenue Bonds:</b>		
\$5,870,600 revenue refunding bonds, issued November 16, 2012, payable in quarterly installments of \$162,320, including principal and interest, beginning February 1, 2013 through November 1, 2022, interest payable at 2.02% .	\$ 2,786,184	\$ 3,371,772
\$456,400 revenue refunding bonds, issued November 16, 2012, payable in quarterly installments of \$13,476, including principal and interest, beginning February 1, 2013 through November 1, 2022, interest payable at 2.02% .	224,138	269,502
Revenue bonds, issued September 20, 2010 payable in 20 semi-annual installments of \$76,051 through September 1, 2020, interest at 3.12%.	125,240	270,038
\$2,350,262 revenue refunding bonds Series 2017A, issued May 25, 2017, payable in semi-annual installments of \$94,612, including principal and interest, beginning December 1, 2017 through May 1, 2032, interest payable at 2.5173% .	2,220,626	2,350,262
\$6,800,000 revenue bonds Series 2017 B, issued May 25, 2017, payable in semi-annual installments of \$273,742, including principal and interest, beginning December 1, 2017 through May 1, 2032, interest payable at 2.5173% .	6,424,924	6,800,000
Revenue bonds, issued July 9, 2009 payable in 35 semiannual installments of \$103,810 through September 1, 2019, final payment of \$83,981 due March 1, 2030, interest at 3.55%. On October 23, 2014 the Authority received notification of a Cost of Funds reduction from 3.55% to 2.72%. Beginning March 1, 2015, each semi-annual payment decreased to \$97,312 with a final installment of \$97,312 due March 1, 2030.	<u>1,981,259</u>	<u>2,119,172</u>
<b>Total Revenue bonds</b>	\$ 13,762,371	\$ 15,180,746
<b>Other Obligations:</b>		
<b>Net Pension liability</b>	-	483,230
<b>Net OPEB liability</b>	241,000	-
<b>Compensated absences</b>	<u>284,068</u>	<u>294,798</u>
<b>Total long-term obligations</b>	<u>\$ 14,287,439</u>	<u>\$ 15,958,774</u>



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 8—COMPENSATED ABSENCES:

---

In accordance with GASB statement 16 “Accounting for Compensated Absences,” the Authority has accrued the liability arising from outstanding compensated absences.

Authority employees accrue vacation and sick leave at various rates. No benefits or pay are received for unused sick leave upon termination. The Authority has outstanding accrued vacation pay at June 30 in the amount of \$284,068 for fiscal year ended June 30, 2018 and \$294,798 for fiscal year ended June 30, 2017.

## NOTE 9—LITIGATION:

---

At June 30, 2018 there were no matters of litigation involving the Authority which would materially affect the Authority’s financial position should any court decisions on pending matters not be favorable to the Authority.

## NOTE 10—CONSTRUCTION COMMITMENT:

---

The Authority has the following commitments outstanding at June 30, 2018.

<u>Projects</u>	<u>Contract Amount</u>	<u>Expenses to Date</u>	<u>Balance</u>
Caldwell Tanks Inc.	\$ <u>1,109,122</u>	\$ <u>577,486</u>	\$ <u>531,636</u>
Total	\$ <u><u>1,109,122</u></u>	\$ <u><u>577,486</u></u>	\$ <u><u>531,636</u></u>

## NOTE 11—PENSION PLAN:

---

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

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

The System administers three different benefit structures for covered employees – Plan 1, Plan 2, and Hybrid. Each of these benefit structures has a different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are set out in the table below:

### *Plan Description*

RETIREMENT PLAN PROVISIONS		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>About Plan 1</b> 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.</p>	<p><b>About Plan 2</b> Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.</p>	<p><b>About the Hybrid Retirement Plan</b> The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan.</p> <ul style="list-style-type: none"> <li>• The defined benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.</li> <li>• 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.</li> <li>• 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.</li> </ul>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Eligible Members</b> Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013, and they have not taken a refund.</p> <p><b>Hybrid Opt-In Election</b> VRS non-hazardous duty covered Plan 1 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.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014.</p> <p>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p> <p>Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.</p>	<p><b>Eligible Members</b> Employees are in 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.</p> <p><b>Hybrid Opt-In Election</b> Eligible Plan 2 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.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014.</p> <p>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p> <p>Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.</p>	<p><b>Eligible Members</b> Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes:</p> <ul style="list-style-type: none"> <li>Political subdivision employees*</li> <li>Members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1-April 30, 2014; the plan's effective date for opt-in members was July 1, 2014.</li> </ul> <p><b>*Non-Eligible Members</b> Some employees are not eligible to participate in the Hybrid Retirement Plan. They include:</p> <ul style="list-style-type: none"> <li>Political subdivision employees who are covered by enhanced benefits for hazardous duty employees.</li> </ul> <p>Those employees eligible for an optional retirement plan (ORP) must elect the ORP plan or the Hybrid Retirement Plan. If these members have prior service under Plan 1 or Plan 2, they are not eligible to elect the Hybrid Retirement Plan and must select Plan 1 or Plan 2 (as applicable) or ORP.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Retirement Contributions</b> Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. 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.</p>	<p><b>Retirement Contributions</b> Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction.</p>	<p><b>Retirement Contributions</b> 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.</p>
<p><b>Creditable Service</b> 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</p>	<p><b>Creditable Service</b> Same as Plan 1.</p>	<p><b>Creditable Service</b> <b><u>Defined Benefit Component:</u></b> 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. A member's total creditable</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Creditable Service (Cont.)</b> member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.</p>	<p><b>Creditable Service (Cont.)</b></p>	<p><b>Creditable Service (Cont.)</b> <b><u>Defined Benefit Component: (Cont.)</u></b> service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.</p> <p><b><u>Defined Contribution Component:</u></b> Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.</p>
<p><b>Vesting</b> 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. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their</p>	<p><b>Vesting</b> Same as Plan 1.</p>	<p><b>Vesting</b> <b><u>Defined Benefit Component:</u></b> 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 (60 months) of creditable service. Plan 1 or Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Vesting (Cont.)</b> member contribution account balance if they leave employment and request a refund.</p> <p>Members are always 100% vested in the contributions that they make.</p>	<p><b>Vesting (Cont.)</b></p>	<p><b>Vesting (Cont.)</b> <b><u>Defined Contribution Component:</u></b> 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.</p> <p>Members are always 100% vested in the contributions that they make.</p> <p>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.</p> <ul style="list-style-type: none"> <li>• After two years, a member is 50% vested and may withdraw 50% of employer contributions.</li> <li>• After three years, a member is 75% vested and may withdraw 75% of employer contributions.</li> <li>• After four or more years, a member is 100% vested and may withdraw 100% of employer contributions.</li> </ul> <p>Distribution is not required by law until age 70½.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Calculating the Benefit</b> 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.</p> <p>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.</p>	<p><b>Calculating the Benefit</b> See definition under Plan 1.</p>	<p><b>Calculating the Benefit</b> <b><u>Defined Benefit Component:</u></b> See definition under Plan 1.</p> <p><b><u>Defined Contribution Component:</u></b> 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.</p>
<p><b>Average Final Compensation</b> A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.</p>	<p><b>Average Final Compensation</b> A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.</p>	<p><b>Average Final Compensation</b> Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.</p>
<p><b>Service Retirement Multiplier</b> <b>VRS:</b> 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 1.70%.</p>	<p><b>Service Retirement Multiplier</b> <b>VRS:</b> Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For non-hazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013.</p>	<p><b>Service Retirement Multiplier</b> <b><u>Defined Benefit Component:</u></b> <b>VRS:</b> The retirement multiplier for the defined benefit component is 1.00%.</p>



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Service Retirement Multiplier VRS: (Cont.)</b></p> <p><b>Sheriffs and regional jail superintendents:</b> The retirement multiplier for sheriffs and regional jail superintendents is 1.85%.</p> <p><b>Political subdivision hazardous duty employees:</b> The retirement multiplier of eligible political subdivision hazardous duty employees other than sheriffs and regional jail superintendents is 1.70% or 1.85% as elected by the employer.</p>	<p><b>Service Retirement Multiplier VRS: (Cont.)</b></p> <p><b>Sheriffs and regional jail superintendents:</b> Same as Plan 1.</p> <p><b>Political subdivision hazardous duty employees:</b> Same as Plan 1.</p>	<p><b>Service Retirement Multiplier VRS: (Cont.)</b> <b><u>Defined Benefit Component:</u></b> <b>VRS: (Cont.)</b></p> <p>For members who 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.</p> <p><b>Sheriffs and regional jail superintendents:</b> Not applicable.</p> <p><b>Political subdivision hazardous duty employees:</b> Not applicable.</p> <p><b><u>Defined Contribution Component:</u></b> Not applicable.</p>
<p><b>Normal Retirement Age VRS: Age 65.</b></p> <p><b>Political subdivisions hazardous duty employees:</b> Age 60.</p>	<p><b>Normal Retirement Age VRS: Normal Social Security retirement age.</b></p> <p><b>Political subdivisions hazardous duty employees:</b> Same as Plan 1.</p>	<p><b>Normal Retirement Age</b> <b><u>Defined Benefit Component:</u></b> <b>VRS: Same as Plan 2.</b></p> <p><b>Political subdivisions hazardous duty employees:</b> Not applicable.</p> <p><b><u>Defined Contribution Component:</u></b> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Earliest Unreduced Retirement Eligibility</b>  <b>VRS:</b> Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.</p> <p><b>Political subdivisions hazardous duty employees:</b>  Age 60 with at least five years of creditable service or age 50 with at least 25 years of creditable service.</p>	<p><b>Earliest Unreduced Retirement Eligibility</b>  <b>VRS:</b> Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90.</p> <p><b>Political subdivisions hazardous duty employees:</b>  Same as Plan 1.</p>	<p><b>Earliest Unreduced Retirement Eligibility</b>  <u><b>Defined Benefit Component:</b></u>  <b>VRS:</b> Normal Social Security retirement age and have at least five years (60 months) of creditable service or when their age and service equal 90.</p> <p><b>Political subdivisions hazardous duty employees:</b>  Not applicable.</p> <p><u><b>Defined Contribution Component:</b></u>  Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p><b>Earliest Reduced Retirement Eligibility</b>  <b>VRS:</b> Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service.</p> <p><b>Political subdivisions hazardous duty employees:</b>  50 with at least five years of creditable service.</p>	<p><b>Earliest Reduced Retirement Eligibility</b>  <b>VRS:</b> Age 60 with at least five years (60 months) of creditable service.</p> <p><b>Political subdivisions hazardous duty employees:</b>  Same as Plan 1.</p>	<p><b>Earliest Reduced Retirement Eligibility</b>  <u><b>Defined Benefit Component:</b></u>  <b>VRS:</b> Age 60 with at least five years (60 months) of creditable service.</p> <p><b>Political subdivisions hazardous duty employees:</b>  Not applicable.</p> <p><u><b>Defined Contribution Component:</b></u>  Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Cost-of-Living Adjustment (COLA) in Retirement</b> 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%.</p> <p><b><u>Eligibility:</u></b> 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.</p> <p>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.</p>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement</b> 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%.</p> <p><b><u>Eligibility:</u></b> Same as Plan 1.</p>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement</b> <b><u>Defined Benefit Component:</u></b> Same as Plan 2.</p> <p><b><u>Defined Contribution Component:</u></b> Not applicable.</p> <p><b><u>Eligibility:</u></b> Same as Plan 1 and Plan 2.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p><b>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</b></p> <p><b><u>Exceptions to COLA</u></b>  <b><u>Effective Dates:</u></b>  The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:</p> <ul style="list-style-type: none"> <li>• The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.</li> <li>• The member retires on disability.</li> <li>• The member retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP).</li> <li>• 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.</li> <li>• 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.</li> </ul>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</b></p> <p><b><u>Exceptions to COLA</u></b>  <b><u>Effective Dates:</u></b>  Same as Plan 1.</p>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</b></p> <p><b><u>Exceptions to COLA</u></b>  <b><u>Effective Dates:</u></b>  Same as Plan 1 and Plan 2.</p>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Plan Description: (Continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<b>Disability Coverage</b> 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.	<b>Disability Coverage</b> 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.	<b>Disability Coverage</b> Employees of political subdivisions (including Plan 1 and Plan 2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides an employer-paid comparable program for its members.  Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.
<b>Purchase of Prior Service</b> 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. Members also may be eligible to purchase periods of leave without pay.	<b>Purchase of Prior Service</b> Same as Plan 1.	<b>Purchase of Prior Service</b> <u><b>Defined Benefit Component:</b></u> Same as Plan 1, with the following exceptions: <ul style="list-style-type: none"> <li>Hybrid Retirement Plan members are ineligible for ported service.</li> </ul> <u><b>Defined Contribution Component:</b></u> Not applicable.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 11—PENSION PLAN: (CONTINUED)

---

### *Plan Description: (Continued)*

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2016 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

### *Employees Covered by Benefit Terms*

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

	<u>Number</u>
Inactive members or their beneficiaries currently receiving benefits	12
Inactive members:	
Vested inactive members	2
Non-vested inactive members	11
Inactive members active elsewhere in VRS	9
Total inactive members	<u>22</u>
Active members	<u>46</u>
Total covered employees	<u><u>80</u></u>

### *Contributions*

The contribution requirement for active employees is governed by §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 5.00% of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5.00% member contribution may have been assumed by the employer. Beginning July 1, 2012 new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5.00% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution.

The Authority's contractually required contribution rate for the year ended June 30, 2017 was 4.38% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015.

This rate, when combined with employer contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$124,405 and \$129,619 for the years ended June 30, 2017 and June 30, 2016, respectively.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 11—PENSION PLAN: (CONTINUED)

---

### ***Net Pension Liability (Asset)***

The Authority's net pension liability (asset) was measured as of June 30, 2017. The total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuation performed as of June 30, 2016, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

### ***Actuarial Assumptions—General Employees***

The total pension liability for General Employees in the Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5%
Salary increases, including inflation	3.5% – 5.35%
Investment rate of return	7.0%, net of pension plan investment expense, including inflation*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed 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:

Largest 10 – Non-Hazardous Duty: 20% of deaths are assumed to be service related

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

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

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 11—PENSION PLAN: (CONTINUED)

---

### ***Actuarial Assumptions—General Employees: (Continued)***

All Others (Non 10 Largest) – Non-Hazardous Duty: 15% of deaths are assumed to be service related  
Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

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

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

Largest 10 – Non-Hazardous Duty:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### Actuarial Assumptions—General Employees: (Continued)

All Others (Non 10 Largest)—Non-Hazardous Duty:

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

### Long-Term Expected Rate of Return

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

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

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



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### *Discount Rate*

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

### *Changes in Net Pension Liability (Asset)*

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2016	\$ 6,599,346	\$ 6,116,116	\$ 483,230
Changes for the year:			
Service cost	\$ 235,183	\$ -	\$ 235,183
Interest	454,867	-	454,867
Changes of assumptions	(192,707)	-	(192,707)
Differences between expected and actual experience	(61,521)	-	(61,521)
Contributions - employer	-	120,399	(120,399)
Contributions - employee	-	141,283	(141,283)
Net investment income	-	755,805	(755,805)
Benefit payments, including refunds of employee contributions	(202,483)	(202,483)	-
Administrative expenses	-	(4,233)	4,233
Other changes	-	(754)	754
Net changes	\$ 233,339	\$ 810,017	\$ (576,678)
Balances at June 30, 2017	\$ 6,832,685	\$ 6,926,133	\$ (93,448)

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### *Changes in Net Pension Liability (Asset): (Continued)*

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2015	\$ 6,034,187	\$ 6,012,175	\$ 22,012
Changes for the year:			
Service cost	\$ 210,790	\$ -	\$ 210,790
Interest	411,798	-	411,798
Differences between expected and actual experience	245,293	-	245,293
Contributions - employer	-	141,775	(141,775)
Contributions - employee	-	162,447	(162,447)
Net investment income	-	106,166	(106,166)
Benefit payments, including refunds of employee contributions	(302,722)	(302,722)	-
Administrative expenses	-	(3,680)	3,680
Other changes	-	(45)	45
Net changes	\$ 565,159	\$ 103,941	\$ 461,218
Balances at June 30, 2016	\$ 6,599,346	\$ 6,116,116	\$ 483,230

### *Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate*

The following presents the net pension asset of the Authority using the discount rate of 7.00%, 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 (6.00%) or one percentage point higher (8.00%) than the current rate:

	Rate		
	(6.00%)	(7.00%)	(8.00%)
<b>2018</b>			
Authority's Net Pension Liability (Asset)	981,476	(93,448)	(968,683)
<b>2017</b>			
Authority Net Pension Liability (Asset)	1,542,879	483,230	(376,175)

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 11—PENSION PLAN: (CONTINUED)

### *Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions*

For the year ended June 30, 2018, the Authority recognized pension expense of \$74,993. At June 30, 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 185,643	\$ 49,552
Change in assumptions	-	155,215
Net difference between projected and actual earnings on pension plan investments	-	103,504
Employer contributions subsequent to the measurement date	124,405	-
Total	<u>\$ 310,048</u>	<u>\$ 308,271</u>

For the year ended June 30, 2017, the Authority recognized pension expense of \$108,973. At June 30, 2017, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 247,260	\$ -
Net difference between projected and actual earnings on pension plan investments	161,384	-
Employer contributions subsequent to the measurement date	129,619	-
Total	<u>\$ 538,263</u>	<u>\$ -</u>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 11—PENSION PLAN: (CONTINUED)

---

### *Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions: (Continued)*

\$124,405 reported as 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 Net Pension Liability in the fiscal year ended June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>		
2019	\$	(48,737)
2020		36,937
2021		(2,736)
2022		(101,169)
2023		(6,923)
Thereafter		-

\$129,619 reported as 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 Net Pension Liability in the fiscal year ended June 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>		
2018	\$	65,881
2019		65,880
2020		151,554
2021		111,881
2022		13,448
Thereafter		-

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN):

---

### *Plan Description*

All full-time, salaried permanent employees of the state agencies, teachers, and employees of participating political subdivisions are automatically covered by the VRS Group Life Insurance Program upon employment. This is a cost-sharing multiple-employer plan administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### ***Plan Description: (Continued)***

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

The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits is set out in the table below:

GROUP LIFE INSURANCE PROGRAM PLAN PROVISIONS
<p><b>Eligible Employees</b></p> <p>The Group Life Insurance Program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program, including the following employers that do not participate in VRS for retirement:</p> <ul style="list-style-type: none"><li>• City of Richmond</li><li>• City of Portsmouth</li><li>• City of Roanoke</li><li>• City of Norfolk</li><li>• Roanoke City School Board</li></ul> <p>Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.</p>
<p><b>Benefit Amounts</b></p> <p>The benefits payable under the Group Life Insurance Program have several components.</p> <ul style="list-style-type: none"><li>• <b><u>Natural Death Benefit</u></b> - The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.</li><li>• <b><u>Accidental Death Benefit</u></b> – The accidental death benefit is double the natural death benefit.</li><li>• <b><u>Other Benefit Provisions</u></b> – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:<ul style="list-style-type: none"><li>○ Accidental dismemberment benefit</li><li>○ Safety belt benefit</li><li>○ Repatriation benefit</li><li>○ Felonious assault benefit</li><li>○ Accelerated death benefit option</li></ul></li></ul>

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### *Plan Description: (Continued)*

GROUP LIFE INSURANCE PROGRAM PLAN PROVISIONS (CONTINUED)
<b>Reduction in Benefit Amounts</b>  The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value.
<b>Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)</b>  For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at \$8,000 by statute. The amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and is currently \$8,111.

### **Contributions**

The contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% x 60%) and the employer component was 0.52% (1.31% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Group Life Insurance Program from the entity were \$15,732 and \$15,389 for the years ended June 30, 2018 and June 30, 2017, respectively.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

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

At June 30, 2018, the entity reported a liability of \$241,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2017 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, the participating employer's proportion was 0.01604%% as compared to 0.01518% at June 30, 2016.

For the year ended June 30, 2018, the participating employer recognized GLI OPEB expense of \$5,000. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

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

	<b><u>Deferred Outflows of Resources</u></b>	<b><u>Deferred Inflows of Resources</u></b>
Differences between expected and actual experience	\$ -	\$ 6,000
Net difference between projected and actual earnings on GLI OPEB program investments	-	9,000
Change in assumptions	-	12,000
Changes in proportion	13,000	-
Employer contributions subsequent to the measurement date	<u>15,732</u>	<u>-</u>
Total	<u>\$ 28,732</u>	<u>\$ 27,000</u>



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### ***GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB: (Continued)***

\$15,732 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

#### **Year Ended June 30**

2019	\$	(4,000)
2020		(4,000)
2021		(4,000)
2022		(2,000)
2023		-
Thereafter		-

### ***Actuarial Assumptions***

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5%
Salary increases, including inflation:	
General state employees	3.5% – 5.35%
Teachers	3.5%-5.95%
SPORS employees	3.5%-4.75%
VaLORS employees	3.5%-4.75%
JRS employees	4.5%
Locality - General employees	3.5%-5.35%
Locality - Hazardous Duty employees	3.5%-4.75%
Investment rate of return	7.0%, net of investment expenses, including inflation*

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



## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—General State Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males set back 1 year, 85% of rates; females set back 1 year.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

##### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males 115% of rates; females 130% of rates.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

##### **Mortality Rates—Teachers**

###### Pre-Retirement:

RP-2014 White Collar Employee Rates to age 80, White Collar Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020.

###### Post-Retirement:

RP-2014 White Collar Employee Rates to age 49, White Collar Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males 1% increase compounded from ages 70 to 90; females set back 3 years with 1.5% increase compounded from ages 65 to 70 and 2.0% increase compounded from ages 75 to 90.

###### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; 115% of rates for males and females.

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

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

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

##### **Mortality Rates—SPORS Employees**

###### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 90% of rates; females set forward 1 year.

###### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

###### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 85%

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—VaLORS Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 90% of rates; females set forward 1 year.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

##### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—JRS Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males set back 1 year, 85% of rates; females set back 1 year.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year; females set back 1 year with 1.5% compounding increase from ages 70 to 85.

##### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males 115% of rates; females 130% of rates.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—Largest Ten Locality Employers—General Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

##### Post-Disablement:

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

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements

As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—Non-Largest Ten Locality Employers—General Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

##### Post-Disablement:

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

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

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

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

---

#### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—Largest Ten Locality Employers—Hazardous Duty Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 90% of rates; females set forward 1 year.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

##### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Increased disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### *Actuarial Assumptions: (Continued)*

#### **Mortality Rates—Non-Largest Ten Locality Employers—Hazardous Duty Employees**

##### Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with scale BB to 2020; males 90% of rates; females set forward 1 year.

##### Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

##### Post-Disablement:

RP-2014 Disability Mortality Rates projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 60% to 45%

### **NET GLI OPEB Liability**

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

		<b>Group Life Insurance OPEB Program</b>
Total GLI OPEB Liability	\$	2,942,426
Plan Fiduciary Net Position		1,437,586
Employers' Net GLI OPEB Liability (Asset)	\$	1,504,840
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		48.86%

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### NET GLI OPEB LIABILITY: (CONTINUED)

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

### Long-Term Expected Rate of Return

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

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

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

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

## NOTE 12—GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

### *Discount Rate*

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

### *Sensitivity of the Employer's Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate*

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

	Rate		
	1% Decrease	Current Discount	1% Increase
	(6.00%)	(7.00%)	(8.00%)
Authority's proportionate share of the Group Life Insurance Program			
Net OPEB Liability	312,000	241,000	184,000

### *Group Life Insurance Program Fiduciary Net Position*

Detailed information about the Group Life Insurance Program's Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

### **NOTE 13—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; and natural disasters for which the Authority carries insurance.

The Authority is a member of the Virginia Municipal Group Self Insurance Association for workers' compensation. This program is administered by a servicing contractor, which furnishes claims review and processing.

Each Association member jointly and severally agrees to assume, pay and discharge any liability. The Authority pays Virginia Municipal Group contributions and assessments based upon classifications and rates into a designated cash reserve fund out of which expenses of the Association and claims and awards are to be paid. In the event of a loss deficit and depletion of all available excess insurance, the Association may assess all members in the proportion which the premium of each bears to the total premiums of all members in the year in which such deficit occurs.

The Authority continues to carry commercial insurance for all other risks of losses. During the last three fiscal years, settled claims from these risks have not exceeded commercial coverage.

### **NOTE 14—ADOPTION OF ACCOUNTING PRINCIPLES:**

---

#### **Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*:**

The Authority implemented the financial reporting provisions of the above Statement during the fiscal year ended June 30, 2018. This Statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expense related to postemployment benefits other than pensions (other postemployment benefits or OPEB). Note disclosure and required supplementary information requirements about OPEB are also addressed. The requirements of this Statement will improve accounting and financial reporting by Political Subdivisions. The implementation of this Statement resulted in a restatement of net position. This restatement is detailed in Note 15.

#### **Governmental Accounting Standards Board Statement No. 85, *Omnibus 2017*:**

The Authority implemented the provisions of the above Statement during the fiscal year ended June 30, 2018. This Statement addresses practice issues identified during implementation and application of certain GASB statements for a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits (OPEB)).

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Financial Statements  
As of June 30, 2018 and 2017 (Continued)

---

## NOTE 14—ADOPTION OF ACCOUNTING PRINCIPLES: (CONTINUED)

---

### **Governmental Accounting Standards Board Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*:**

The Authority implemented the financial reporting provisions of the above Statement during the fiscal year ended June 30, 2018. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund.

## NOTE 15—RESTATEMENT OF NET POSITION:

---

The Authority's net position was restated as follows:

	<b>Fiscal Years Ending June 30,</b>	
	<b>2017</b>	<b>2016</b>
Net Position, as reported	\$ 76,198,218	\$ 73,019,903
To adjust for excess depreciation expense in prior years	139,796	50,675
Implementation of GASB 75	<u>(250,000)</u>	<u>-</u>
Net Position, as restated	<u>\$ 76,088,014</u>	<u>\$ 73,070,578</u>

This page intentionally left blank.

## Required Supplementary Information

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Schedule of Changes in Net Pension Liability (Asset) and Related Ratios

Years Ended June 30, 2015 through June 30, 2018

	2017	2016	2015	2014
<b>Total pension liability</b>				
Service cost	\$ 235,183	\$ 210,790	\$ 210,819	\$ 233,185
Interest	454,867	411,798	381,354	351,577
Changes in assumptions	(192,707)	-	-	-
Difference between expected and actual experience	(61,521)	245,293	78,832	-
Benefit payments, including refunds of employee contributions	(202,483)	(302,722)	(169,477)	(149,264)
<b>Net change in total pension liability</b>	<b>\$ 233,339</b>	<b>\$ 565,159</b>	<b>\$ 501,528</b>	<b>\$ 435,498</b>
<b>Total pension liability - beginning</b>	<b>6,599,346</b>	<b>6,034,187</b>	<b>5,532,659</b>	<b>5,097,161</b>
<b>Total pension liability - ending (a)</b>	<b>\$ 6,832,685</b>	<b>\$ 6,599,346</b>	<b>\$ 6,034,187</b>	<b>\$ 5,532,659</b>
<b>Plan fiduciary net position</b>				
Contributions - employer	\$ 120,399	\$ 141,775	\$ 131,280	\$ 166,227
Contributions - employee	141,283	162,447	128,938	121,744
Net investment income	755,805	106,166	264,236	766,252
Benefit payments, including refunds of employee contributions	(202,483)	(302,722)	(169,477)	(149,264)
Administrative expense	(4,233)	(3,680)	(3,477)	(3,968)
Other	(754)	(45)	(56)	41
<b>Net change in plan fiduciary net position</b>	<b>\$ 810,017</b>	<b>\$ 103,941</b>	<b>\$ 351,444</b>	<b>\$ 901,032</b>
<b>Plan fiduciary net position - beginning</b>	<b>6,116,116</b>	<b>6,012,175</b>	<b>5,660,731</b>	<b>4,759,699</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 6,926,133</b>	<b>\$ 6,116,116</b>	<b>\$ 6,012,175</b>	<b>\$ 5,660,731</b>
<b>Authority's net pension liability (asset) - ending (a) - (b)</b>	<b>\$ (93,448)</b>	<b>\$ 483,230</b>	<b>\$ 22,012</b>	<b>\$ (128,072)</b>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	<b>101.37%</b>	<b>92.68%</b>	<b>99.64%</b>	<b>102.31%</b>
<b>Covered payroll</b>	<b>\$ 2,959,345</b>	<b>\$ 2,728,127</b>	<b>\$ 2,495,933</b>	<b>\$ 2,386,659</b>
<b>Authority's net pension (asset) liability as a percentage of covered payroll</b>	<b>-3.16%</b>	<b>17.71%</b>	<b>0.88%</b>	<b>-5.37%</b>

Schedule is intended to show information for 10 years. Information prior to the 2014 valuation is not available. However, additional years will be included as they become available.



# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Schedule of Employer Contributions

Years Ended June 30, 2009 through June 30, 2018

Date	Contributions in Relation to			Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
	Contractually Required Contribution (1)	Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)		
2018	\$ 124,405	\$ 124,405	\$ -	\$ 3,002,308	4.38%
2017	129,619	129,619	-	2,959,345	4.38%
2016	145,955	145,955	-	2,728,127	5.35%
2015	133,532	131,280	-	2,495,933	5.35%
2014	166,589	166,589	-	2,386,659	6.98%
2013	163,810	163,810	-	2,346,852	6.98%
2012	102,513	102,513	-	2,238,283	4.58%
2011	100,762	100,762	-	2,200,037	4.58%
2010	91,519	91,519	-	2,184,230	4.19%
2009	91,424	91,424	-	2,181,950	4.19%

Current year contributions are from Authority records and prior year contributions are from the VRS actuarial valuation performed each year.

## FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Notes to Required Supplementary Information  
Year Ended June 30, 2018

---

**Changes of benefit terms** – There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this is a fairly new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2017 are not material.

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

**Largest 10 – Non-Hazardous Duty:**

Mortality Rates (pre-retirement, post-retirement)	Updated to a more current mortality table - RP-2014 projected
Retirement Rates	Lowered rates at older ages and changed final retirement
Withdrawal Rates	Adjusted rates to better fit experience at each year age and
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%

**Largest 10 – Hazardous Duty:**

Mortality Rates (pre-retirement, post-retirement)	Updated to a more current mortality table - RP-2014 projected
Retirement Rates	Lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience
Disability Rates	Increased rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%

**All Others (Non 10 Largest) – Non-Hazardous Duty:**

Mortality Rates (pre-retirement, post-retirement)	Updated to a more current mortality table - RP-2014 projected
Retirement Rates	Lowered rates at older ages and changed final retirement
Withdrawal Rates	Adjusted rates to better fit experience at each year age and
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%

**All Others (Non 10 Largest) – Hazardous Duty:**

Mortality Rates (pre-retirement, post-retirement)	Updated to a more current mortality table - RP-2014 projected
Retirement Rates	Increased age 50 rates, and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and
Disability Rates	Adjusted rates to better fit experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 60% to 45%

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Schedule of Authority's Share of Net OPEB Liability  
Group Life Insurance Program  
Year Ended June 30, 2018

Date (1)	Employer's Proportion of the Net GLI OPEB Liability (Asset) (2)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage of Covered Payroll (3)/(4) (5)	Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability (6)
2017	0.01604% \$	241,000 \$	3,002,308	8.03%	48.86%

Schedule is intended to show information for 10 years. Information prior to the 2017 valuation is not available. However, additional years will be included as they become available.

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Schedule of Employer Contributions  
Group Life Insurance Program  
Year Ended June 30, 2018

<b>Date</b>	<b>Contractually Required Contribution (1)</b>	<b>Contributions in Relation to Contractually Required Contribution (2)</b>	<b>Contribution Deficiency (Excess) (3)</b>	<b>Employer's Covered Payroll (4)</b>	<b>Contributions as a % of Covered Payroll (5)</b>
2018	\$ 15,732	\$ 15,732	\$ -	\$ 3,002,308	0.52%
2017	15,389	15,389	-	2,959,345	0.52%
2016	14,459	13,095	1,364	2,728,127	0.48%
2015	13,243	11,994	1,249	2,498,762	0.48%
2014	12,649	11,456	1,193	2,386,659	0.48%
2013	12,438	11,265	1,173	2,346,852	0.48%
2012	9,848	6,267	3,581	2,238,283	0.28%
2011	9,680	6,160	3,520	2,200,037	0.28%
2010	7,863	4,402	3,461	2,184,230	0.20%
2009	7,855	5,891	1,964	2,181,950	0.27%

Schedule is intended to show information for 10 years. FY2018 was the first year this information was provided.

Notes to Required Supplementary Information  
 Group Life Insurance Program  
 Year Ended June 30, 2018

---

**Changes of benefit terms** – There have been no actuarially material changes to the System benefit provisions

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

**General State Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Teachers**

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

**SPORS Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 85%

**VaLORS Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better fit experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%

Notes to Required Supplementary Information  
 Group Life Insurance Program  
 For the Year Ended June 30, 2018 (Continued)

---

**JRS Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change

**Largest Ten Locality Employers - General Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%

**Non-Largest Ten Locality Employers - General Employees**

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

**Largest Ten Locality Employers - Hazardous Duty Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Increased disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%

**Non-Largest Ten Locality Employers - Hazardous Duty Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 60% to 45%

## Statistical Section

### Contents

### Tables

#### Financial Trends

These tables contain trend information to help the reader understand how the the Authority's financial performance has changed over time.

1-2

#### Revenue, Rates and Usage Information

These tables contain information to help the reader assess the factors affecting the Authority's change in revenues and its ability to generate revenues.

3-6

#### Expenses

This table contains comparative information about the Authority's expenses.

7

#### Debt Capacity

These tables present information to help the reader assess the affordability of the Authority's current levels of outstanding debt and the Authority's ability to issue debt in the future.

8-9

#### Demographic and Economic Information

These tables offer demographic and economic indicators to help the reader understand the environment within which the Authority's financial activities take place and to help make comparisons over time.

10-11

#### Operating Information

These tables contain information about the Authority's operations and resources to help the reader understand how the Authority's financial information relate to the activities it performs.

12

#### Other Information

These tables contain miscellaneous data

13

*Sources:* Unless otherwise noted, the information in these tables is derived from the comprehensive annual financial reports for the relevant year.

This page intentionally left blank.



Net Position by Component  
Last Ten years

	Fiscal Years				
	2018	2017	2016	2015	2014
Net position:					
Net Investment in capital assets	\$ 67,421,966	\$ 64,987,481	\$ 65,074,202	\$ 60,030,622	\$ 58,184,968
Restricted	369,386	468,724	-	-	111,972
Unrestricted	<u>13,320,422</u>	<u>10,881,809</u>	<u>7,996,376</u>	<u>8,011,147</u>	<u>7,413,933</u>
Total net position	<u>\$ 81,111,774</u>	<u>\$ 76,338,014</u>	<u>\$ 73,070,578</u>	<u>\$ 68,041,769</u>	<u>\$ 65,710,873</u>

	Fiscal Years				
	2013	2012	2011	2010	2009
Net position:					
Net Investment in capital assets	\$ 54,323,804	\$ 53,333,168	\$ 53,412,822	\$ 52,245,846	\$ 45,261,874
Restricted	-	31,915	445,567	982,474	1,720,280
Unrestricted	<u>5,110,621</u>	<u>4,339,839</u>	<u>2,525,847</u>	<u>1,328,083</u>	<u>769,515</u>
Total net position	<u>\$ 59,434,425</u>	<u>\$ 57,704,922</u>	<u>\$ 56,384,236</u>	<u>\$ 54,556,403</u>	<u>\$ 47,751,669</u>

Source: Fauquier County Water and Sanitation Authority

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

## Changes in Net Position Last Ten Years

	2018	2017	2016
Operating revenues:			
Water service	\$ 4,630,031	\$ 4,351,789	\$ 3,438,450
Sewer service	4,867,411	4,515,284	3,874,505
Septic service	364,114	387,223	337,780
Late charges	194,015	163,712	129,880
Other operating revenues	368,109	420,630	334,378
Total operating revenues	<u>\$ 10,423,680</u>	<u>\$ 9,838,638</u>	<u>\$ 8,114,993</u>
Operating expenses:			
Salaries	\$ 3,167,950	\$ 3,135,875	\$ 2,848,966
Fringe benefits	872,536	984,579	1,138,118
General and administrative	639,812	584,324	556,190
Operations and maintenance	2,311,448	2,359,475	2,128,639
Depreciation expense	3,198,751	3,304,507	3,063,090
Total operating expenses	<u>\$ 10,190,497</u>	<u>\$ 10,368,760</u>	<u>\$ 9,735,003</u>
Net operating income (loss)	<u>\$ 233,183</u>	<u>\$ (530,122)</u>	<u>\$ (1,620,010)</u>
Nonoperating revenue (expenses):			
Availability fees	\$ 3,043,318	\$ 2,295,031	\$ 2,095,670
Interest earned	221,570	81,424	31,869
Interest expense	(349,662)	(250,894)	(168,652)
Net nonoperating revenue (expenses)	<u>\$ 2,915,226</u>	<u>\$ 2,125,561</u>	<u>\$ 1,958,887</u>
Net income (loss) before capital contributions	<u>\$ 3,148,409</u>	<u>\$ 1,595,439</u>	<u>\$ 338,877</u>
Capital Contributions	<u>1,875,351</u>	<u>1,671,997</u>	<u>4,689,932</u>
Change in net position	<u>\$ 5,023,760</u>	<u>\$ 3,267,436</u>	<u>\$ 5,028,809</u>
Net position, at beginning of year	* <u>76,088,014</u>	<u>73,070,578</u>	<u>68,041,769</u>
Net position, at end of year	<u>\$ 81,111,774</u>	<u>\$ 76,338,014</u>	<u>\$ 73,070,578</u>

Source: Fauquier County Water and Sanitation Authority.

\* During FY2018, the Authority prospectively implemented GASB Statement No. 75, which resulted in a restatement of beginning net position. In the year of implementation, comparative information for the net OPEB liability and related items was unavailable. Therefore, the FY2017 amounts related to OPEB have not be restated to reflect the requirements of GASB Statement No. 75.

Table 2

2015	2014	2013	2012	2011	2010	2009
\$ 3,519,398	\$ 3,290,504	\$ 3,278,523	\$ 3,110,188	\$ 3,150,219	\$ 2,807,897	\$ 3,031,716
3,524,999	3,390,211	3,202,582	3,178,717	3,132,887	2,807,471	2,054,634
295,896	222,908	490,042	468,705	176,063	87,990	75,858
151,975	161,898	147,231	171,640	147,980	129,235	117,598
383,291	328,601	294,476	267,671	148,189	347,874	395,890
<u>\$ 7,875,559</u>	<u>\$ 7,394,122</u>	<u>\$ 7,412,854</u>	<u>\$ 7,196,921</u>	<u>\$ 6,755,338</u>	<u>\$ 6,180,467</u>	<u>\$ 5,675,696</u>
\$ 2,622,093	\$ 2,515,181	\$ 2,338,834	\$ 2,308,237	\$ 2,172,426	\$ 2,163,497	\$ 2,204,681
882,093	829,358	926,274	847,748	786,446	748,240	818,458
477,316	537,264	388,643	428,523	400,482	406,526	376,598
2,082,445	2,192,251	1,768,958	1,419,252	1,388,562	1,366,460	1,564,933
2,982,641	3,276,736	3,002,676	2,599,488	2,521,187	2,485,492	2,486,274
<u>\$ 9,046,588</u>	<u>\$ 9,350,790</u>	<u>\$ 8,425,385</u>	<u>\$ 7,603,248</u>	<u>\$ 7,269,103</u>	<u>\$ 7,170,215</u>	<u>\$ 7,450,944</u>
<u>\$ (1,171,029)</u>	<u>\$ (1,956,668)</u>	<u>\$ (1,012,531)</u>	<u>\$ (406,327)</u>	<u>\$ (513,765)</u>	<u>\$ (989,748)</u>	<u>\$ (1,775,248)</u>
\$ 1,952,908	\$ 3,687,466	\$ 1,168,821	\$ 603,542	\$ 520,656	\$ 316,255	\$ 331,482
40,078	32,504	26,253	32,346	34,240	26,370	60,748
(188,494)	(219,958)	(495,053)	(331,064)	(370,451)	(339,834)	(336,501)
<u>\$ 1,804,492</u>	<u>\$ 3,500,012</u>	<u>\$ 700,021</u>	<u>\$ 304,824</u>	<u>\$ 184,445</u>	<u>\$ 2,791</u>	<u>\$ 55,729</u>
\$ 633,463	\$ 1,543,344	\$ (312,510)	\$ (101,503)	\$ (329,320)	\$ (986,957)	\$ (1,719,519)
<u>1,868,668</u>	<u>4,733,104</u>	<u>2,042,013</u>	<u>1,422,189</u>	<u>1,730,322</u>	<u>7,791,691</u>	<u>2,068,824</u>
\$ 2,502,131	\$ 6,276,448	\$ 1,729,503	\$ 1,320,686	\$ 1,401,002	\$ 6,804,734	\$ 349,305
<u>65,539,638</u>	<u>59,434,425</u>	<u>57,704,922</u>	<u>56,384,236</u>	<u>54,983,234</u>	<u>47,751,669</u>	<u>47,402,364</u>
<u>\$ 68,041,769</u>	<u>\$ 65,710,873</u>	<u>\$ 59,434,425</u>	<u>\$ 57,704,922</u>	<u>\$ 56,384,236</u>	<u>\$ 54,556,403</u>	<u>\$ 47,751,669</u>

Schedule of Revenues  
Last Ten Fiscal Years

<b>Fiscal Years</b>		<b>Water Service</b>		<b>Sewer Service</b>		<b>Availability Fees</b>		<b>Other Revenues</b>		<b>Total</b>
2009	\$	3,031,716	\$	2,054,634	\$	331,482	\$	589,346	\$	6,007,178
2010		2,807,897		2,807,471		316,255		591,469		6,523,092
2011		3,150,219		3,132,887		520,656		506,472		7,310,234
2012		3,110,188		3,178,717		603,542		940,362		7,832,809
2013		3,278,523		3,202,582		1,168,821		958,002		8,607,928
2014		3,290,504		3,390,211		3,687,466		745,911		11,114,092
2015		3,519,398		3,524,999		1,952,908		871,240		9,868,545
2016		3,438,450		3,874,505		2,095,670		833,907		10,242,532
2017		4,351,789		4,515,284		2,295,031		1,052,989		12,215,093
2018		4,630,031		4,867,411		3,043,318		1,147,808		13,688,568

Source: Fauquier County Water and Sanitation Authority

Schedule of Rates  
Last Ten Years

<b>Fiscal Year</b>		<b>Water Usage Fee (1)</b>		<b>Water Base Service Fees</b>		<b>Sewer Usage Fee (2)</b>		<b>Sewer Base Service Fees</b>
2009	\$	2.93	\$	15.77	\$	5.42	\$	14.96
2010		3.05		16.41		6.02		16.60
2011		3.36		18.04		6.63		18.26
2012		3.36		18.04		6.63		18.26
2013		3.47		18.59		6.83		18.81
2014		3.47		18.59		6.83		18.81
2015		3.70		19.80		7.27		20.03
2016		3.94		21.09		7.74		21.33
2017		4.35		27.39		9.07		27.67
2018		4.35		27.39		9.07		27.67

(1) This is the first step of several steps in the Water Usage Fee schedule.

(2) There is only one rate for the Sewer Usage Fee.

Source: Fauquier County Water and Sanitation Authority

Schedule of New Connections  
Last Ten Fiscal Years

Fiscal Year	WATER			SEWER		
	New Connections	*Cumulative Connections	% of Growth	New Connections	*Cumulative Connections	% of Growth
2009	50	4,905	1.01%	35	3,183	1.09%
2010	68	4,973	1.39%	91	3,274	2.86%
2011	90	5,063	1.81%	114	3,388	3.48%
2012	107	5,170	2.11%	114	3,502	3.36%
2013	109	5,279	2.11%	84	3,586	2.40%
2014	187	5,466	3.54%	111	3,697	3.10%
2015	110	5,576	2.01%	115	3,812	3.11%
2016	141	5,717	2.53%	115	3,927	3.02%
2017	171	5,888	2.99%	135	4,062	3.44%
2018	133	6,021	2.26%	134	4,196	3.30%

Source: Fauquier County Water and Sanitation Authority

\* Table has been restated in prior years per new information provided to management

Schedule of Water Processed and Wastewater Treated (in gallons)  
Last Ten Calendar Years

<b>Calendar Year</b>	<b>Water Processed</b>	<b>Wastewater Treated</b>
2008	477,000,000	401,000,000
2009	458,000,000	450,000,000
2010	480,000,000	449,000,000
2011	473,000,000	504,000,000
2012	489,000,000	433,000,000
2013	489,000,000	519,000,000
2014	507,000,000	517,000,000
2015	529,000,000	513,000,000
2016	595,000,000	485,000,000
2017	516,000,000	466,000,000

Source: Fauquier County Water and Sanitation Authority

Schedule of Operating Expenses  
Last Ten Fiscal Years

<b>Fiscal Years</b>	<b>Salaries</b>	<b>Fringe Benefits</b>	<b>General &amp; Administrative</b>	<b>Operations &amp; Maintenance</b>	<b>Depreciation Expense</b>	<b>Total</b>
2009	\$ 2,204,681	\$ 818,458	\$ 376,598	\$ 1,564,933	\$ 2,486,274	\$ 7,450,944
2010	2,163,497	748,240	406,526	1,366,460	2,485,492	7,170,215
2011	2,172,426	786,446	400,482	1,388,562	2,521,187	7,269,103
2012	2,308,237	847,748	428,523	1,419,252	2,599,488	7,603,248
2013	2,338,834	926,274	388,643	1,768,958	3,002,676	8,425,385
2014	2,515,181	829,358	537,264	2,192,251	3,276,736	9,350,790
2015	2,622,093	882,093	477,316	2,082,445	2,982,641	9,046,588
2016	2,848,966	1,138,118	556,190	2,128,639	3,113,765	9,785,678
2017	3,135,875	984,579	584,324	2,359,475	3,393,628	10,457,881
2018	3,167,950	872,536	639,812	2,311,448	3,198,751	10,190,497

Source: Fauquier County Water and Sanitation Authority



**FAUQUIER COUNTY WATER AND SANITATION AUTHORITY**
**Table 8**
**Outstanding Debt by Type  
Last Ten Fiscal Years**

	<b>Fiscal Year</b>				
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Note Payable - Brookside	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Refunding Bond 2017	2,220,626	2,350,262	-	-	-
Revenue Refunding Bond 2017	6,424,924	6,800,000	-	-	-
Revenue Bond 7-9-2009	1,981,259	2,119,172	2,253,410	2,384,070	2,507,394
Revenue Bond 9-20-10	125,240	270,038	410,421	546,525	678,480
Revenue Bond 11-16-2012	-	-	1,949,592	273,176	80,341
Revenue Refunding Bond 2012	2,786,184	3,371,772	3,945,678	4,508,136	5,059,374
Revenue Refunding Bond 2012	<u>224,138</u>	<u>269,502</u>	<u>313,364</u>	<u>355,775</u>	<u>396,782</u>
Total outstanding debt	<u>\$ 13,762,371</u>	<u>\$ 15,180,746</u>	<u>\$ 8,872,465</u>	<u>\$ 8,067,682</u>	<u>\$ 8,722,371</u>
Debt per capita (1)	<u>\$ 401</u>	<u>\$ 442</u>	<u>\$ 281</u>	<u>\$ 280</u>	<u>\$ 289</u>
	<b>Fiscal Year</b>				
	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Notes Payable VHEDA	\$ -	\$ -	\$ 938,800	\$ 938,800	\$ 938,800
Note Payable - Brookside	516,150	516,150	525,450	525,450	525,450
Notes Payable Opal system	-	-	451,831	451,831	451,831
VRA Water Revenue Bond	-	455,811	491,089	519,019	545,486
VRA Water Revenue Bond	-	1,575,992	1,704,310	1,811,460	1,914,426
VRA Water Revenue Bond	-	1,246,396	1,326,713	1,404,247	1,478,391
Revenue Bond 7-9-2009	2,622,917	2,735,447	2,903,781	2,903,781	-
Revenue Bond 2011	-	3,113,956	3,417,208	-	-
Revenue Bond 9-20-10	806,412	1,127,971	1,242,201	-	-
Revenue Bond 11-16-2012	80,341	-	-	-	-
Revenue Refunding Bond 2012	5,599,617	-	-	-	-
Revenue Refunding Bond 2012	436,432	-	-	-	-
Virginia Water Facility Bond	-	180,000	350,000	515,000	675,000
Virginia Water Facility Bond	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,090,499</u>	<u>4,764,896</u>
Total outstanding debt	<u>\$ 10,061,869</u>	<u>\$ 10,951,723</u>	<u>\$ 13,351,383</u>	<u>\$ 13,160,087</u>	<u>\$ 11,294,280</u>
Debt per capita	<u>\$ 345</u>	<u>\$ 382</u>	<u>\$ 476</u>	<u>\$ 476</u>	<u>\$ 413</u>

Source: Fauquier County Water and Sanitation Authority

(1) Population data can be found in the table of demographic and economic statistics, reference Table 10.

**FAUQUIER COUNTY WATER AND SANITATION AUTHORITY**
**Table 9**

Revenue Bond Coverage (Water and Sewer Bonds)  
Last Ten Fiscal Years

<b>Fiscal Year</b>	<b>Gross Revenue</b>	<b>Direct Operating Expenses</b>	<b>Net Revenue Available for Debt Service</b>	<b>Debt Service Requirements</b>			
				<b>Principal</b>	<b>Interest</b>	<b>Total</b>	<b>Coverage</b>
2009 **	\$ 8,125,920	\$ 4,964,670	\$ 3,161,250	\$ 981,307	\$ 336,501	\$ 1,317,808	2.40
2010	6,523,092	4,684,723	1,838,369	1,037,974	339,834	1,377,808	1.33
2011	7,310,234	4,747,916	2,562,318	1,108,704	356,213	1,464,917	1.75
2012	7,832,809	5,003,760	2,829,049	999,729	454,370	1,454,099	1.95
2013	8,607,928	5,422,709	3,185,219	1,105,769	437,768	1,543,537	2.06
2014	11,114,092	6,074,054	5,040,038	1,339,498	200,278	1,539,776	3.27
2015	9,868,545	6,063,947	3,804,598	847,524	164,159	1,011,683	3.76
2016	10,242,532	6,671,913	3,570,619	871,465	156,916	1,028,381	3.47
2017	12,215,093	7,064,253	5,150,840	892,390	260,741	1,153,131	4.47
2018	13,688,568	6,991,746	6,696,822	1,418,375	367,544	1,785,919	3.75

Note: Details regarding the Authority's outstanding debt can be found in the notes to the financial statements. Gross revenues includes investment earnings and availability fees. Operating expenses do not include interest or depreciation.

Revenue means:

- i All rates, fees, rentals, charges, income and money property allocable to the System in accordance with general accepted accounting principles or resulting from the Borrower's ownership or operation of the System, excluding customer and other deposits subject to refund until such deposits have become the Borrower's property,
- ii The proceeds of any insurance covering business interruption loss relating to the System,
- iii Interest on any money or securities related to the System held by or on behalf of the Borrower,
- iv Any other money from other sources pledged by the Borrower to the payment of its Local Bond.

\*\* In FY09, FCWSA received a \$2,057,994 WQIF award associated with capital improvement made to the Vint Hill WWTP funded by cash proffer by a developer. The award was included in FY09 Gross Revenue.

Source: Fauquier County Water and Sanitation Authority

\*\*Demographic and Economic Statistics  
Last Ten Fiscal Years

<u>Year</u>	<u>Estimated Customer Population (1)</u>	<u>Personal Income (expressed in thousands) (2)</u>	<u>Per Capita Personal Income (2)</u>	<u>Unemployment Rate (3)</u>	<u>County Civilian Labor Force (3)</u>	<u>At-Place Employment Annual Average (3)</u>	<u>School Enrollment (4)</u>
2009	27,289	\$ 3,459,006	\$ 53,292	5.5%	37,180	20,271	11,244
2010	27,645	3,593,026	54,871	6.2%	35,671	20,133	11,222
2011	28,047	3,823,425	57,791	5.5%	35,990	20,771	11,241
2012	28,713	4,096,730	61,437	5.1%	35,671	21,381	11,201
2013	27,678	3,992,753	59,320	4.9%	35,401	21,212	11,032
2014	28,266	4,078,731	59,646	4.6%	35,110	21,070	11,084
2015	28,581	4,249,353	61,780	3.9%	35,025	21,517	11,055
2016	31,554	4,410,308	63,854	3.5%	35,837	22,043	11,042
2017	34,314	*	*	3.3%	36,354	22,674	11,007
2018	35,760	*	*	2.8%	37,563	*	11,104

Sources: (1) Fauquier County Water and Sanitation Authority  
 (2) Bureau of Economic Analysis, calendar year data.  
 (3) Virginia Employment Commission, Virginia Labor Market Information, calendar year end data for FY2009 through FY2017, provisional estimate for FY2018, as of July 2018  
 (4) Fauquier County Schools Adopted Budgets

\* Unavailable

\*\* Table has been restated in prior years per new information provided to management

Principal Employers  
Current Year and Nine Years Ago

Employer	2018		2009	
	Rank	Number of Employees	Rank	Number of Employees
Fauquier County School Board	1	1,000 and over	1	1,000 and over
Fauquier Health System	2	500 to 999	2	500 to 999
County of Fauquier	3	500 to 999	3	500 to 999
US Department of Transportation	4	250 to 499	4	250 to 499
Walmart	5	100 to 249	5	250 to 499
Town of Warrenton	6	100 to 249	7	250 to 499
Food Lion	7	100 to 249	6	250 to 499
Airlie Foundation	8	100 to 249	9	250 to 499
Warrenton Overlook Health & Rehab Center			8	250 to 499
Blue Ridge Orthopaedic Associates	9	100 to 249		
Smith Midland Corporation	10	100 to 249		
The Fauquier Bank			10	250 to 499

Source: Virginia Employment Commission Top 50 Employers

Operating and Capital Indicators  
Last Ten Fiscal Years

	<u>FY2018</u>	<u>FY2017</u>	<u>FY2016</u>	<u>FY 2015</u>	<u>FY 2014</u>	<u>FY 2013</u>	<u>FY 2012</u>	<u>FY 2011</u>	<u>FY 2010</u>	<u>FY 2009</u>
<b>Water System:</b>										
Number of water systems	16	16	16	16	16	14	14	14	14	14
*Number of service connections	6021	5888	5717	5,576	5,466	5,279	5,170	5,063	4,973	4,905
Miles of water mains	143	142	142	141	127	100	100	100	100	100
Daily average consumption per MGD	1.42	1.63	1.49	1.38	1.365	1.34	1.323	1.455	1.455	1.455
Average daily water distributed per MGD	1.42	1.63	1.49	1.38	1.365	1.34	1.323	1.455	1.455	1.455
Storage capacity in million gallons	5.154	5.154	5.154	5.154	5.154	5.154	5.154	5.154	5.154	1.911
<b>Sewerage System:</b>										
Number of treatment plants	3	3	3	3	3	3	3	3	3	3
Number of pump stations	15	14	14	14	14	13	13	16	16	16
*Number of service connections	4196	4062	3927	3,812	3,697	3,586	3,502	3,388	3,274	3,183
Miles of sanitary sewer mains	96	91	91	91	91	82	82	82	82	82
Daily average treatment per MGD	1.28	1.328	1.492	1.254	1.365	1.319	1.289	1.289	0.939	0.939
Design capacity of treatment plants per MGD	3.59	3.59	3.59	3.59	3.59	3.59	3.236	3.236	2.886	2.886
<b>Number of Full-Time Employees:</b>	47	47	46	46	42	44	44	44	45	45

MGD - Million Gallon per Day

Source: Fauquier County Water and Sanitation Authority

\* Table has been restated in prior years per new information provided to management

# FAUQUIER COUNTY WATER AND SANITATION AUTHORITY

Principal Water and Sewer Customers  
Last Ten Fiscal Years

Principal Users of the Water System	Principal Business	FY 2018		FY 2017		FY 2016	
		000/gals	% of System	000/gals	% of System	000/gals	% of System
FAUQUIER COUNTY PUBLIC SCHOOLS	Public Schools	11,945	2.31%	11,667	1.96%	12,252	2.32%
CHUCK DAVIS	ODEC	7,230	1.40%	6,683	1.12%	8,900	1.68%
FEDERAL AVIATION ADM	Federal FFA buliding	5,064	0.98%	13,657	2.30%	2,470	0.47%
CEDAR LEE CONDO ASSOCIATES	Apartments	2,654	0.51%	6,960	1.17%	2,880	0.54%
ASPEN SOUTH	Apartments	2,638	0.51%	5,826	0.98%	3,191	0.60%
NORTH FORTY ASPEN PLUS	Apartments	1,628	0.32%	3,757	0.63%	1,754	0.33%
WAVERLY STATION	Apartments	1,611	0.31%	3,273	0.55%	1,422	0.27%
SUFFIELD MEADOW CONDO	Condos	1,142	0.22%	5,577	0.94%	12,605	2.38%
BROOKSIDE HOA	Homeowners Association	1,029	0.20%	4,313	0.72%	1,047	0.20%
VAN MANAGEMENT INC	Marshall McDonalds	1,028	0.20%	2,022	0.34%		
BEALETON VILLAGE CENTER LLC	Shopping Center						
WAKEFIELD SCHOOL	Private School						
CEDAR LEE CONDO ASSOCIATES	Apartments					2,880	0.54%
ASPEN CLUB APTS/NORTH 40	Apartments					1,080	0.20%
R. B. DRUMHELLER INC.	Bealeton McDonalds						
Total		35,969	6.97%	63,735	10.71%	48,011	9.08%
Total Water System Annual Consumption		516,000		595,000		529,000	

Principal Users of the Sewer System	Principal Business	000/gals	System	000/gals	System	000/gals	System
FAUQUIER COUNTY PUBLIC SCHOOLS	Public Schools	10,985	2.36%	9,632	1.99%	12,835	2.50%
FEDERAL AVIATION ADM	Federal FFA building	5,064	1.09%	13,657	2.82%	2,470	0.48%
CEDAR LEE CONDO ASSOCIATES	Condos	2,654	0.57%	6,960	1.44%	2,880	0.56%
ASPEN SOUTH	Apartments	2,638	0.57%	5,826	1.20%	3,191	0.62%
SHEETZ # 221 UTILITIES	Convenience Store, Gas Station	2,128	0.46%	2,227	0.46%	2,285	0.45%
NORTH FORTY ASPEN PLUS	Apartments	1,628	0.35%	3,757	0.77%	1,754	0.34%
WAVERLY STATION	Apartments	1,611	0.35%	3,273	0.67%	1,422	0.28%
VAN MANAGEMENT INC	Marshall McDonalds	1,028	0.22%	2,022	0.42%		
BEALETON VILLAGE CENTER LLC	Shopping Center	930	0.20%	1,981	0.41%		
BROOKSIDE HOA	Homeowners Association	259	0.06%	4,313	0.89%	1,047	0.20%
OPAL OIL, INC.	Quarles Q Stop						
BLUE RIDGE CHRISTIAN HOME	Nursing Home						
ASPEN CLUB APTS/NORTH 40	Apartments					1,080	0.21%
R. B. DRUMHELLER INC.	Bealeton McDonalds						
WAKEFIELD SCHOOL	Private School						
CHUCK DAVIS	ODEC					8,900	1.73%
Total		17,940	3.85%	53,648	11.06%	35,394	6.90%
Total Sewer System Annual Flow		466,000		485,000		513,000	

Table 13

FY 2015		FY 2014		FY 2013		FY 2012		FY 2011		FY 2010		FY 2009	
000/gals	% of System	000/gals	% of System	000/gals	% of System	000/gals	% of System	000/gals	% of System	000/gals	% of System	000/gals	% of System
9,946	1.96%	10,696	2.26%	9,684	2.05%	13,035	2.76%	17,338	3.61%	11,394	2.37%	10,569	2.22%
3,765	0.74%	9,029	1.91%	299	0.06%	1,931	0.41%	957	0.20%	361	0.08%		
3,646	0.72%	3,911	0.83%	3,661	0.77%	4,487	0.95%	4,643	0.97%	2,552	0.53%	2,778	0.58%
3,562	0.70%			1,840	0.39%	526				488	0.10%	1,350	0.28%
3,165	0.62%	3,223	0.68%	3,168	0.67%	2,963	0.63%	3,348	0.70%	2,939	0.61%	2,505	0.53%
1,730	0.34%	1,520	0.32%	1,402	0.30%	4,900	1.04%	1,649	0.34%	1,479	0.31%	1,483	0.31%
1,520	0.30%	1,507	0.32%	1,055	0.22%	717	0.15%			910	0.19%	1,130	0.24%
2,485	0.49%	3,480	0.74%	3,193	0.68%	773	0.16%					573	0.12%
1,030	0.20%	1,234	0.26%			1,280	0.27%	1,462	0.30%	1,224	0.26%	1,025	0.21%
794	0.16%			6,667	1.41%	1,377	0.29%	1,012	0.21%				
772	0.15%			448	0.09%	586	0.12%		0.00%	871	0.19%	752	0.19%
3,562	0.70%			1,840	0.39%	526				488	0.10%	1,350	0.28%
1,879	0.37%	2,347	0.50%	2,753	0.58%	2,084	0.44%	3,231	0.67%	2,717	0.57%	3,141	0.66%
790	0.16%	852	0.18%										
35,000	6.90%	33,888	7.17%	32,349	6.83%	30,698	6.27%	28,997	6.04%	22,871	4.78%	23,878	5.04%
507,000		489,000		489,000		473,000		480,000		458,000		477,000	
000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System
9,885	1.91%	10,025	1.99%	8,397	1.67%	12,837	2.55%	15,024	3.35%	10,090	2.25%	11,041	2.75%
3,646	0.71%	3,911	0.78%	3,660	0.73%	4,487	0.89%	4,643	1.03%	2,552	0.57%	2,778	0.69%
3,562	0.69%			1,840	0.37%	526	0.10%	1,515	0.34%	488	0.11%	1,350	0.34%
3,165	0.61%	3,223	0.64%	3,168	0.63%	2,963	0.59%	3,343	0.74%	2,457	0.55%	2,841	0.71%
2,095	0.41%	2,190	0.43%	1,978	0.39%	1,875	0.37%	1,929	0.43%	1,811	0.40%	1,708	0.43%
1,730	0.33%	1,520	0.30%	1,402	0.28%	4,900	0.97%	1,649	0.37%	1,479	0.33%	1,483	0.37%
1,520	0.29%	1,507	0.30%	1,055	0.21%	717	0.14%		0.00%	910	0.20%	1,130	0.28%
1,030	0.20%	1,234	0.24%	1,084	0.22%	1,280	0.25%	1,482	0.33%	1,224	0.27%	1,025	0.26%
794	0.15%			6,667	1.41%	1,377	0.29%	1,012	0.21%				
1,474	0.29%	1,461	0.29%										
1,271	0.25%			930	0.18%	1,026	0.20%	1,212	0.27%				
1,879	0.36%	2,347	0.47%	2,753	0.55%	2,084	0.41%	3,231	0.72%	2,717	0.61%	3,141	0.78%
790	0.15%	852	0.18%										
772	0.15%			448	0.09%	586	0.12%		0.00%	871	0.19%	752	0.19%
1,970	0.38%	9,029	1.79%	359	0.07%	3,880	0.77%	2,993	0.67%	2,939	0.65%	2,846	0.71%
31,937	6.18%	21,160	4.19%	27,074	5.37%	37,161	7.36%	37,021	8.25%	27,538	6.13%	30,095	7.50%
517,000		519,000		433,000		504,000		449,000		450,000		401,000	

This page intentionally left blank.



# ROBINSON, FARMER, COX ASSOCIATES

CERTIFIED PUBLIC ACCOUNTANTS

A PROFESSIONAL LIMITED LIABILITY COMPANY

## **Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards***

**To The Honorable Members of the Board of Directors  
Fauquier County Water and Sanitation Authority  
Warrenton, Virginia**

We have audited, in accordance with the 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, the financial statements of the business-type activities of Fauquier County Water and Sanitation Authority as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the Authority's financial statements and have issued our report thereon dated October 22, 2018.

### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Fauquier County Water and Sanitation Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Fauquier County Water and Sanitation Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Fauquier County Water and Sanitation Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## Compliance and Other Matters

As part of obtaining reasonable assurance about whether Fauquier County Water and Sanitation Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Robinson, Farmer, Cox Associates*

Charlottesville, Virginia  
October 22, 2018