Fauquier County Water and Sanitation Authority Warrenton, Virginia

Comprehensive Annual Financial Report



YEARS ENDED JUNE 30, 2019 AND 2018

FAUQUIER COUNTY WATER AND SANITATION AUTHORITY WARRENTON, VIRGINIA

Comprehensive Annual Financial Report Years Ended June 30, 2019 and 2018

Prepared by:

Deborah A. Whitley Director of Finance

Comprehensive Annual Financial Report Years Ended June 30, 2019 and 2018

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OFFICERS AND BOARD MEMBERS

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

AUDIT COMMITTEE

L. Paul Blackmer, Jr. A. William Chipman, III

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 11, 2019

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, 2019 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, 2019.

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 wastewater 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 2019 is approximately 70,150. This is expected to exceed 71,395 by the year 2020, and 78,698 by the year 2030. Per the Virginia Employment Commission, as of June 2019, the total civilian labor force in Fauquier County was 37,765, of which 36,787 are employed, and 978 are unemployed. Unemployment is at its lowest rate in over 10 years at 2.6%, down from 2.8% in 2018.

The Authority provides water and/or wastewater 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 as water and wastewater connections grew by 159 and 143, respectively, in FY2019. However, Availability fee revenue decreased by \$1.37 million in FY2019 as building slowed down in the service area.

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 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 two of 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 FY2019 was \$1.76 million and will reduce to \$931,335 in FY2030. The Authority will begin a review of phase two options in FY2020. 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 \$18.5 million, 5-year Capital Improvement Plan (CIP) in its FY2020 budget for water exploration, sources, storage, and treatment facilities. A \$13 million, 5-year Replacement and Renewal Program (R&R) was also adopted for repairs and upgrades to its existing water and wastewater systems.

Independent Audit The Code of Virginia requires that an external audit be performed annually. The Authority's financial statements for the year ended June 30, 2019 have been audited by Robinson, Farmer, Cox Associates, an independent firm of licensed certified public accountants. The fiscal year 2019 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, 2018. 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.

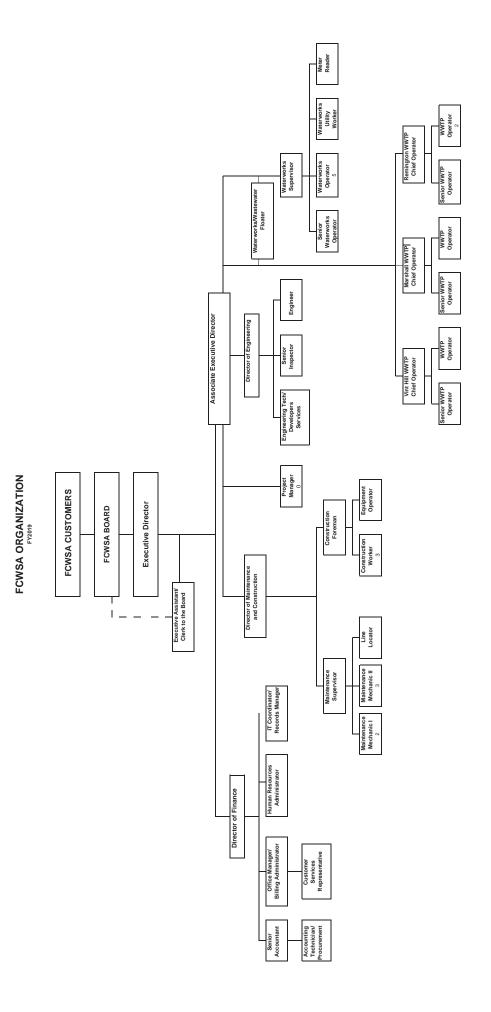
A Certificate of Achievement is valid for a period of one year. The Authority believes our current Comprehensive Annual Financial Report conforms to the Certificate of Achievement Program requirements, and we are submitting the CAFR to the GFOA to determine its eligibility for a Certificate for FY2019.

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,

Deborah A. Whitley
Director of Finance





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, 2018

Christopher P. Morrill

Executive Director/CEO



ROBINSON, FARMER, COX ASSOCIATES, PLLC

Certified Public Accountants

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, 2019 and 2018, 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, 2019 and 2018, 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.

Change in Accounting Principle

As described in Note 14 to the financial statements, in 2019, the Authority adopted new accounting guidance, GASB Statement No. 88 *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. 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 3-10, and schedules related to pension and OPEB funding on pages 55-60 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the 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 November 11, 2019, 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.

Arbinson, Famul, Cox Associats Charlottesville, Virginia November 11, 2019

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, 2019. The Authority's mission is to provide quality, reliable water and wastewater services to its current and future customers in an environmentally responsible and sustainable manner. To accomplish this, the Authority set its FY2019 budget focus on customer service, water and wastewater system upgrades, generator replacement, supervisory control and data acquisition (SCADA) upgrades, water treatment, 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

- Construction in progress projects increased by \$128,211 in FY2019;
- Net Capital Assets increased by \$3.5 million as a result of the completion of the Baldwin Ridge 2nd Water Storage Tank, Terranova Treatment, Green Meadows Treatment, Lift Station I Upgrade and Generator Replacement, Rock Springs Waterline Replacement, and Marshall WWTP Generator Replacement;
- Net position increased by \$5.767 million from \$81,111,774 to \$86,879,437;
- Total revenues, including capital contributions, were \$16,295,883; and total expenses were \$10,528,220;
- Net operating income was \$572,512 in FY2019 and \$233,183 in FY2018;
- In FY2019, the Authority retired a 2010 Revenue Bond in the amount of \$1.3 Million;
- The Authority Board adopted a sick leave payout methodology to align Authority benefits to that of Fauquier County's, accounting for much of the \$83,891 increase in compensated absences in FY2019;
- 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 twelve 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 performance of the Authority's operations over the past year and can be used to determine whether the

OVERVIEW OF THE FINANCIAL STATEMENTS: (CONTINUED)

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

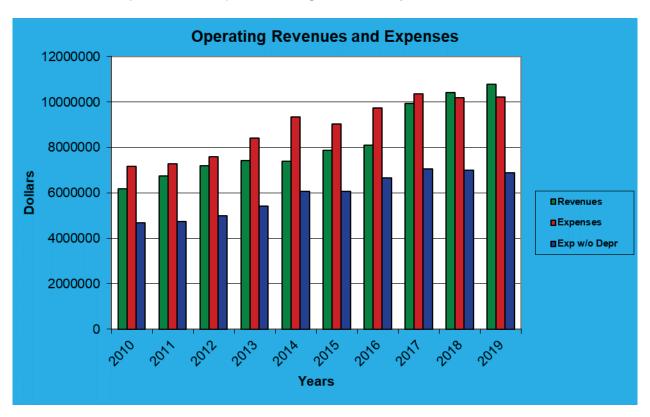
The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Authority's activities that determine if the overall financial position has improved during the year. These two statements help determine the financial health of the organization, 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 FY2020 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 FY2019 by \$5.7 million, or 7.1%, as compared to Net Position as of June 30, 2018. Total Net Position increased in FY2018 by \$4.7 million, or 6.3%, as compared to Net Position as of June 30, 2017. Total Net Position in FY2017 increased by \$3.2 million, or 4.5%, as compared to net position as of June 30, 2016. A significant portion of this increase was due to Capital Contributions of \$3.5, \$1.8, and \$1.7, million in FY2019, FY2018, and FY2017, respectively, as well as availabilities fees of \$1.6, \$3, and \$2.3 million in FY2019, FY2018, and FY2017, respectively. In FY2019 the **Total Liabilities** decreased by \$2 million, or 12.6%, from FY2018 as debt service was paid down. FY2018's Total Liabilities decreased by \$0.3 million, or 2.4% from FY2017. FY2017's Total Liabilities increased by \$6.5 million, or 64.5%, over FY2016 as a new revenue bond was obtained for projects at year end. The following table depicts the Authority's assets and liabilities as of June 30, 2019, 2018, and 2017:

		1	Net Position	
		2019	2018	2017
Current and other assets Capital assets Deferred outflows of resources	\$	21,064,890 \$ 79,717,265 284,324	20,836,575 \$ 76,173,481 338,780	18,569,897 73,861,995 538,263
Total assets and deferred outflows of resources	\$	101,066,479 \$	97,348,836 \$	92,970,155
Noncurrent liabilities Other liabilities Deferred inflows of resources	\$	11,560,963 \$ 2,368,611 257,468	12,825,570 \$ 3,060,280 351,212	14,510,919 2,097,792 23,430
Total liabilities	\$_	14,187,042 \$	16,237,062 \$	16,632,141
Net position: Net investment in capital assets Restricted Unrestricted	\$	71,184,508 \$ 369,386 15,325,543	67,587,981 \$ 369,386 13,154,407	65,115,142 468,724 10,754,148
Total net position Total liabilities, deferred inflows of	\$_	86,879,437 \$	· .	
resources and net position	\$_	101,066,479 \$_	97,348,836 \$	92,970,155

FINANCIAL ANALYSIS: (CONTINUED)

Operating Income – In FY2019 the Operating Revenues were \$10.7 million, a 3.5% increase over FY2018. The increase reflects a 3% rate increase to users in year 3 of a five-year rate increase plan, voted in by the Authority Board, after a rate study completed in late FY2016. Operating Revenues in FY2018 were \$10.4 million, a 5.9% increase over FY2017. The increase reflects a 7% rate increase to users in year 2 of the five-year rate increase plan. 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 FY2019, the Operating Expenses increased by \$22,230, a 0.2% increase over FY2018. The increase reflects the increase in depreciation. As in FY2018, FY2019's Operating Revenues completely covered Operating Expenses. In FY2018, the Operating expenses decreased to \$10.2 million, or 1.5%, from FY2017. Operating Expenses in FY2017 increased to \$10.4 million, or 5.9%, over FY2016. FY2018 saw a reduction in depreciation and salaries and fringe benefits from position vacancies. FY2019 continued to experience position vacancies. FY2017 saw an increase in Personnel Costs, Legal Fees, Maintenance, and Depreciation Expenses. Depreciation Expense represents 33%, 31%, and 32%, of Operating Expense in FY2019, FY2018, and FY2017, 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 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 quality, reliable water and wastewater services.

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, 2019, 2018, and 2017.

	_	2019		2018		2017
Operating revenues:						
Water service	\$	4,793,437	\$	4,630,031	\$	4,351,789
Sewer service		5,144,754		4,867,411		4,515,284
Septic service		388,808		364,114		387,223
Late charges		181,607		194,015		163,712
Other operating revenues		276,633		368,109		420,630
Total operating revenues	\$	10,785,239	\$	10,423,680	\$	9,838,638
Operating expenses:						_
Salaries	\$	3,093,075	\$	3,167,950	\$	3,135,875
Fringe benefits		837,296		872,536		984,579
General and administrative		497,459		639,812		584,324
Operations and maintenance		2,463,265		2,311,448		2,359,475
Depreciation expense		3,321,632	_	3,198,751		3,304,507
Total operating expenses	\$	10,212,727	\$_	10,190,497	\$_	10,368,760
Net operating income (loss)	\$_	572,512	\$_	233,183	\$_	(530,122)
Nonoperating revenue and expenses:						
Availability fees	\$	1,670,737	\$	3,043,318	\$	2,295,031
Interest earned		299,055		221,570		81,424
Interest expense	_	(315,493)		(349,662)		(250,894)
Net nonoperating revenue	\$	1,654,299	\$	2,915,226	\$	2,125,561
Net income (loss) before capital						
contributions	\$	2,226,811	\$	3,148,409		1,595,439
Capital Contributions	_	3,540,852	_	1,875,351	_	1,671,997
Change in net position	\$	5,767,663	\$	5,023,760	\$	3,267,436
Net position, at beginning of year	_	81,111,774		76,088,014		73,070,578
Net position, at end of year	\$_	86,879,437	\$_	81,111,774	\$_	76,338,014

CAPITAL ASSETS AND LONG-TERM DEBT

<u>Capital Assets</u> - The increase in capital assets for FY2019 is the result of completed CIP and 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	\$ 3,540,852
Vehicles (net of deletions)	145,312
CIP and R&R Projects	2,703,148

The largest Construction-in-Progress projects as of June 30, 2019, were:

I&I Projects	\$ 752,099
Marshall Salem Wells #3 and #4	463,264
New Baltimore G-4 Well	635,780
Remington Sludge Bay	407,276

The following table shows capital asset balances for the fiscal years ending June 30, 2019, 2018, and 2017:

	_	2019	_	2018	2017
Land Construction in progress Structures and improvements	\$	651,060 3,340,888 58,636,264	\$	651,060 \$ 3,212,677 56,239,263	651,060 1,225,809 54,465,503
Infrastructure Vehicles Machinery and equipment	_	58,913,661 1,335,008 13,844,913	_	55,066,662 1,175,406 13,661,994	53,545,285 1,126,480 13,585,131
Total Property & Equipment	\$	136,721,794	\$	130,007,062 \$	124,599,268
Less: Accumulated Depreciation (as restated)	_	57,004,529	_	53,833,581	50,737,273
Net property & equipment	\$	79,717,265	\$	76,173,481 \$	73,861,995

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

CAPITAL ASSETS AND LONG-TERM DEBT: (CONTINUED)

<u>Cash Balances</u> - The Authority's Board and Management determined that a multi-year rate setting plan would provide the Authority a basis for budgeting Operating 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:

	 Uncommitted Cash Balances	Voluntary Cash Reserves
FY2020	\$ 3,127,015	\$ 5,161,088
FY2021	2,125,387	5,193,828
FY2022	1,087,651	5,216,788
FY2023	1,590,292	5,214,008
FY2024	1,021,978	5,231,408

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 20 - 24)
FY2020 Approved Budget

Project		FY2020	FY2021	FY2022	FY2023	FY2024	5 YR Totals
E-7 Well	\$	200,000 \$	1,000,000 \$	- \$	- \$	- \$	1,200,000
K Well		-	200,000	1,000,000	-	-	1,200,000
H3R Connection		500,000	-	-	-	-	500,000
High Rock/E Wells Treatment		-	1,000,000	-	-	-	1,000,000
K Well Treatment		-	1,000,000	-	-	-	1,000,000
Exploratory Well Work		100,000	100,000	100,000	100,000	100,000	500,000
ENR Phase 2 For 2.0 MGD		-	500,000	1,000,000	1,000,000	-	2,500,000
ENR for 2.5 MGD		-	-	-		250,000	250,000
Meadowbrook Well I		-	-	-	1,300,000	1,300,000	2,600,000
Phase 1A, 250 GPM well, 250,000 gal							
storage tank (County Funded)		-	-	-	2,600,000	2,600,000	5,200,000
TPL - 1A Well		-	1,700,000	-			1,700,000
The Plain Route 55 - Nitrate Treatment							
(Ion Exchange)		-	-	-	300,000	-	300,000
Nitrate Treatment (Ion Exchange)		-	-	300,000	-	-	300,000
Nitrate Treatment (Ion Exchange)	_	<u> </u>	<u> </u>	<u> </u>	<u> </u>	300,000	300,000
Project Totals	\$	800,000 \$	5,500,000 \$	2,400,000 \$	5,300,000 \$	4,550,000 \$	18,550,000

CAPITAL ASSETS AND LONG-TERM DEBT: (CONTINUED)

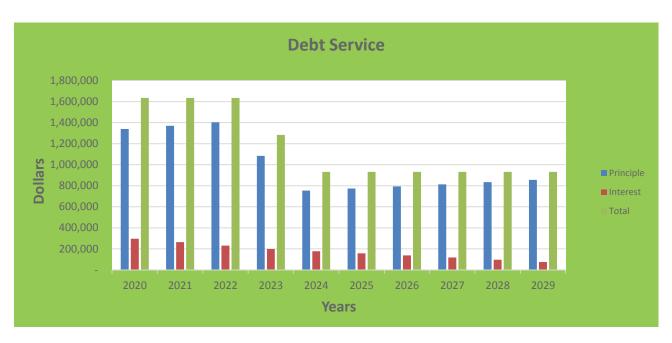
Five Year Replacement and Renewal Program (FY 20 - 24) FY 2020 Approved Budget

Project	FY2020	FY2021	FY2022	FY2023	FY2024	5 YR Totals
Warehouse/Maintenance Shop	\$ \$		350,000 \$	\$		\$ 450,000
Security Systemwide Upgrades	20,000	20,000				40,000
SCADA Communication Maintenance	50,000	50,000	50,000	50,000	50,000	250,000
Generator Replacement	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 - gravel, seal pave (The Plains Tank Road, MWWTP road, High						
Rock Driveway Automatic air compressor at Paris,	30,000	20,000	20,000	20,000	20,000	110,000
Piedmont, 774, Bethel, Salem Church Water System - Condition Monitoring -	25,000	-	-	-	-	25,000
Utility Management	-	50,000	-	-	-	50,000
AMI - Utility Management	-	50,000	-	-	-	50,000
Water System - Hydro tank Replacement						
projects - Rt 55 and Catlett	-	60,000	60,000	60,000	-	180,000
Repair Well Houses	20,000	20,000	20,000	-	-	60,000
Upgrade Water Meters with radio read	70,000	70,000	70,000	-	-	210,000
Fire Hydrant Testing Program	108,000	-	-	-	-	108,000
Water System Major Replacements	60,000	60,000	60,000	60,000	60,000	300,000
Lift Station Improvements	10,000	-	-	-	-	10,000
Lift Station Pump Replacements - Mt Shade,						
Licking Run, Craig Run, Tin Pot	75,000	-	-	-	-	75,000
Wastewater Systems Major Replacements	60,000	60,000	60,000	60,000	60,000	300,000
New Baltimore Water Systems Upgrade						
(Based on Water Modeling \$10-12 mil)	-	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Waterloo rehabilitation, redrill, tie in well #4	-	440,000	-	-	-	440,000
I/I - Town of Remington - Tier 1 Project	330,000	-	-	-	-	330,000
I/I - Town of Remington - Tier 2 Project	-	140,000	-	-	-	140,000
I/I - Town of Remington - Tier 3 Project I/I - Bealeton East of CR PS - Flow Area	-	-	415,000	415,000	-	830,000
#5 - SSES/CIP Development I/I - Bealeton East of CR PS - Flow Area	-	-	-	250,000	-	250,000
#5 - Tier 1 Project I/I - Bealeton East of CR PS - Flow Area	-	-	-	-	500,000	500,000
#5 - Tier 2 Project	-	-	-	-	100,000	100,000
Remington Road Line and Manholes	200,000	-	-	-	-	200,000
Replace Centrifuge	-	500,000	-	-	-	500,000
Chem Scan Rebuild	35,000	-	-	-	-	35,000
Reactor #1 Aeration Replacement	60,000	-	-	-	-	60,000
Secondary Clarifier Bearings	50,000	50,000	-	-	-	100,000
LS Improvement - Craig Run Controls upgrade, Tin Pot Drive Replacement,						
Omni beacons, hour meters Craig Run L/S - wet well piping, slide rails,	25,000	-	-	-	-	25,000
mounting brackets, base elbow replacements	100,000	-	-	-	-	100,000
Replace belt press Control Building modification - office,	-	-	500,000	-	-	500,000
SCADA and facilities space	_	100,000	_	_	_	100,000
Replace #2 Decant Actuator	6,000	-	_	_	_	6,000
Replace 200 Diffuser Sleeves in SBR #2	6,100					6,100
Replace Influent Pump #3	24,000	-	_	-	_	24,000
SBR Mixer Motor	6,100	_	_		_	6,100
SBR Blower Lobe	8,000	_	_		_	8,000
17/66 Building - Bathroom Addition	15,000	_	_	_	_	15,000
Salem 3 Main Waterline - Rt 55 - Phase 2	210,000	_	_	_	_	210,000
I/I - Plains - Tier 1 Project	-	400,000	_	_	_	400,000
I/I - Plains - Tier 2 Project	_	-	400,000	_	_	400,000
I/I - SSES/CIP - Marshall South Main Street	-	-	100,000	-	-	100,000
I/I - Marshall South Main Street - Tier 1	-	-	-	400,000	100,000	500,000
I/I - Marshall South Main Street - Tier 2			<u> </u>	<u> </u>	400,000	400,000
Project Totals	\$ <u>1,713,200</u> \$	3,300,000 \$	3,215,000 \$	2,425,000 \$	2,400,000	\$ 13,053,200

CAPITAL ASSETS AND LONG TERM DEBT: (Continued)

Long-Term Debt -

The Authority has five Revenue Bonds, totaling \$12,328,909, as of June 30, 2019. The Authority had no new borrowings in FY2019. 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 7.

ECONOMIC FACTORS

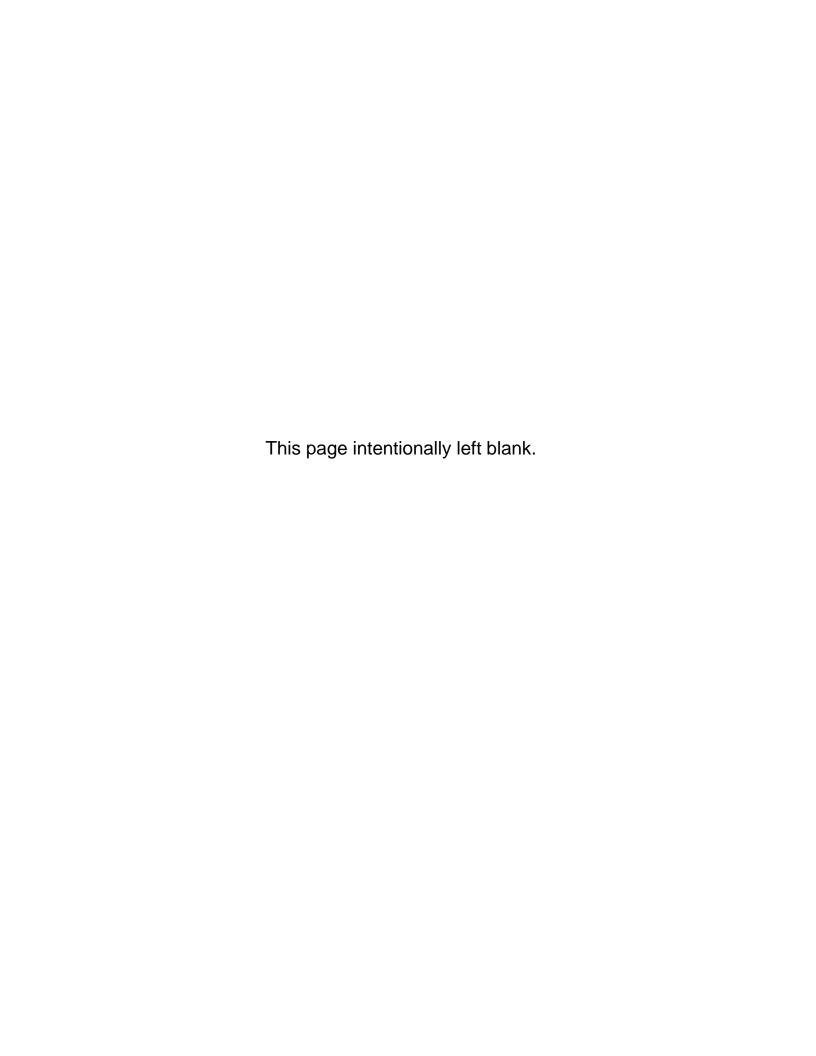
In FY2019, the Authority's Non-Cash Revenue from Developer Contribution in the form of infrastructure was \$3.5 million. Availability Fee Revenue has decreased in FY2019 to \$1.6 million as building projects in the service district are completed. In FY2019, FY2018, and FY2017 availability fee revenues were \$1.6 million, \$3 million, and \$2.2 million, respectively. The Authority 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 quality, reliable water and wastewater services are provided to customers in an environmentally responsible and sustainable manner.

The Authority's rates, fees, and other charges are structured to produce enough revenue to service debt, and to meet all operational expenses. While user rates met these goals in FY2019, 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 make increases to user rates probable over the next several fiscal years.

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.

Basic Financial Statements



Statements of Net Position At June 30, 2019 and 2018

	_	2019	2018
ASSETS			
Current Assets:			
Cash and cash equivalents	\$	14,608,172 \$	13,192,967
Accounts receivable (net of allowance for doubtful accounts)		1,515,636	1,491,186
Due from other governments		100,000	119,922
Prepaid items		142,419	16,222
Other current assets		16,600	16,600
Total current assets	\$	16,382,827 \$	14,836,897
Noncurrent Assets:			
Restricted Assets:			
Cash and cash equivalents:			
Security deposits and construction meter deposits	\$	152,693 \$	203,275
Performance bonds		90,007	90,007
Opal water system		369,386	369,386
Unexpended bond proceeds		3,880,593	5,192,812
Total restricted assets	\$	4,492,679 \$	5,855,480
Net pension asset	\$	133,634 \$	93,448
Other noncurrent assets	\$	55,750_\$_	50,750
Capital Assets:			
Capital assets not being depreciated:			
Land	\$	651,060 \$	651,060
Construction in progress		3,340,888	3,212,677
Capital assets being depreciated:			
Structures and improvements		58,636,264	56,239,263
Infrastructure		58,913,661	55,066,662
Vehicles Machinery and agricument		1,335,008	1,189,697
Machinery and equipment Accumulated depreciation		13,844,913 (57,004,529)	13,647,703 (53,833,581)
Net capital assets	\$	79,717,265 \$	76,173,481
Net capital assets	Ψ	Τ9,111,205 φ	70,173,401
Total noncurrent assets	\$	84,399,328 \$	82,173,159
Total assets	\$	100,782,155 \$	97,010,056
DEFERRED OUTFLOWS OF RESOURCES			
Pension related items	\$	245,212 \$	310,048
OPEB related items	· 	39,112	28,732
Total deferred outflows of resources	\$	284,324 \$	338,780
Total assets and deferred outflows of resources	\$	101,066,479 \$	97,348,836

Statements of Net Position
At June 30, 2019 and 2018 (Continued)

	_	2019	_	2018
LIABILITIES				
Current Liabilities:				
Accounts payable	\$	634,633	\$	1,091,050
Accrued interest	·	40,785		48,064
Retainage payable		74,588		166,015
Revenue bonds - current portion		1,339,109		1,433,462
Compensated absences - current portion		36,796		28,407
Liabilities payable from Restricted Assets:				
Performance bonds		90,007		90,007
Security deposits and construction meter deposits	_	152,693		203,275
Total current liabilities	\$_	2,368,611	\$	3,060,280
Noncurrent Liabilities:				
Revenue bonds - less current portion	\$	10,989,800	\$	12,328,909
Compensated absences-less current portion	Ψ	331,163	Ψ	255,661
Net OPEB liability		240,000		241,000
,	_			
Total noncurrent liabilities	\$	11,560,963	\$	12,825,570
Total liabilities	\$	13,929,574	\$	15,885,850
DEFERRED INFLOWS OF RESOURCES				
Deferred amount on refunding	\$	9,853	\$	15,941
Pension related items	*	222,615	•	308,271
OPEB related items		25,000		27,000
Total deferred inflows of resources	\$	257,468	\$	351,212
NET POSITION				
Net investment in capital assets	\$	71,184,508	\$	67,421,966
Restricted:	Ψ	,,	Ψ	01,121,000
Opal water system		369,386		369,386
Unrestricted		15,325,543		13,320,422
		,,.	_	,
Total net position	\$	86,879,437	\$	81,111,774
Total liabilities, deferred inflows of resources and net position	\$	101,066,479	\$	97,348,836

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

Statements of Revenues, Expenses, and Changes in Net Position Years Ended June 30, 2019 and 2018

		2019	2018
Operating revenues:			
Water service	\$	4,793,437	\$ 4,630,031
Sewer service		5,144,754	4,867,411
Septic service		388,808	364,114
Late charges		181,607	194,015
Other operating revenues		276,633	368,109
Total operating revenues	\$	10,785,239	\$ 10,423,680
Operating expenses:			
Salaries	\$	3,093,075	\$ 3,167,950
Fringe benefits		837,296	872,536
General and administrative		497,459	639,812
Operations and maintenance		2,463,265	2,311,448
Depreciation expense		3,321,632	3,198,751
Total operating expenses	\$	10,212,727	\$ 10,190,497
Net operating income (loss)	\$_	572,512	\$ 233,183
Nonoperating revenue (expenses):			
Availability fees	\$	1,670,737	\$ 3,043,318
Interest income		299,055	221,570
Interest expense		(315,493)	(349,662)
Net nonoperating revenue (expenses)	\$	1,654,299	\$ 2,915,226
Net income (loss) before capital contributions	\$	2,226,811	\$ 3,148,409
Capital Contributions	_	3,540,852	1,875,351
Change in net position	\$	5,767,663	\$ 5,023,760
Net position, beginning of year		81,111,774	76,088,014
Net position, end of year	\$_	86,879,437	\$ 81,111,774

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

Statements of Cash Flows Years Ended June 30, 2019 and 2018

Toda Caraca Cara Col 2010 and 2010			
	_	2019	2018
Cash flows from operating activities: Receipts from customers and users Payments to suppliers for goods and services Payments to and on behalf of employees for services	\$	10,725,129 \$ (3,138,113) (3,920,866)	10,330,074 (2,720,296) (4,104,702)
Net cash provided by (used for) operating activities	\$_	3,666,150 \$	3,505,076
Cash flows from capital and related financing activities: Purchases of property, equipment and construction in progress Interest payments Principal payments on long-term debt Proceeds from availability fees	\$	(3,821,216) \$ (328,860) (1,433,462) 1,670,737	(2,855,794) (367,545) (1,418,375) 3,043,318
Net cash (used for) capital and related financing activities	\$_	(3,912,801) \$	(1,598,396)
Cash flows from noncapital financing activities: Performance bond	\$_	\$_	90,007
Cash flows from investing activities: Interest income	\$_	299,055_\$	221,570
Net increase (decrease) in cash and cash equivalents	\$	52,404 \$	2,218,257
Cash and cash equivalents at beginning of year	_	19,048,447	16,830,190
Cash and cash equivalents at end of year	\$_	19,100,851 \$	19,048,447
Reconciliation of operating (loss) to net cash provided by (used for) operating activities: Cash flows from operations: Income (loss) from operating activities	\$	572,512 \$	233,183
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities: Depreciation expense Changes in operating assets and liabilities: (Increase) decrease in accounts receivable (Increase) decrease in due from other governments (Increase) decrease in prepaid items (Increase) decrease in other noncurrent assets Increase (decrease) in compensated absenses (Increase) decrease in deferred outflows of resources - pension Increase (decrease) in deferred inflows of resources - OPEB Increase (decrease) in deferred inflows of resources - OPEB (Increase) decrease in net pension asset Increase (decrease) in net OPEB liability Increase (decrease) in operating accounts payable Increase (decrease) in security deposits Net cash provided by (used for) operating activities	\$	3,321,632 (24,450) 19,922 (126,197) (5,000) 83,891 64,836 (85,656) (10,380) (2,000) (40,186) (1,000) (51,192) (50,582)	3,198,751 (151,731) 27,100 169,658 (10,730) 228,215 308,271 (15,294) 27,000 (576,678) (25,000) 61,306 31,025 3,505,076
Reconciliation of Cash: Cash and cash equivalents Restricted cash and cash equivalents Total	\$ \$ \$	14,608,172 \$ 4,492,679 19,100,851 \$	13,192,967 5,855,480 19,048,447
Noncash investing, capital and financing activities Contributions of capital assets (Increase) decrease in retainage payable for capital projects	\$	3,540,852 \$ 91,427	1,875,351 (38,354)

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

Notes to Financial Statements As of June 30, 2019 and 2018

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 Pension Plan
- Notes to Required Supplementary Information Pension Plan
- Schedule of Authority's Share of Net OPEB Liability Group Life Insurance Program
- Schedule of Employer Contributions Group Life Insurance Program
- Notes to Required Supplementary Information Group Life Insurance Program

Notes to Financial Statements As of June 30, 2019 and 2018 (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.

Notes to Financial Statements
As of June 30, 2019 and 2018 (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 \$3,321,632 for the year ended June 30, 2019 and \$3,198,751 for the year ended June 30, 2018

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

Assets	Years
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 \$93,602 at June 30, 2019 and \$81,569 for the year ended June 30, 2018.
- 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.

Notes to Financial Statements As of June 30, 2019 and 2018 (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 reclassified to conform to current year classifications.

Notes to Financial Statements As of June 30, 2019 and 2018 (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. <u>Deferred Outflows/Inflows of Resources</u>

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 one item that qualifies for reporting in this category. It is comprised of certain items related to the measurement of the net pension asset and net OPEB liability and contributions to the pension and OPEB plans made during the current year and subsequent to the net pension asset and net OPEB 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 and net OPEB 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 asset, 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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 2-SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

O. Other Postemployment Benefits (OPEB)

Group Life Insurance

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. <u>Upcoming Pronouncements</u>

Statement No. 84, *Fiduciary Activities*, establishes criteria for identifying fiduciary activities of all state and local governments for accounting and financial reporting purposes and how those activities should be reported. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.

Statement No. 87, *Leases*, requires 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. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

Statement No. 90, *Majority Equity Interests – An Amendment of GASB Statements No, 14 and No. 61*, provides guidance for reporting a government's majority equity interest in a legally separate organization and for reporting financial statement information for certain component units. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.

Statement No. 91, *Conduit Debt Obligations*, provides a single method of reporting conduit debt obligations by issuers and eliminates diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. The requirements of this Statement are effective for reporting periods beginning after December 15, 2020.

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

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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.

<u>Investments</u>

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, 2019 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.

Authority's Rated Debt Investments' Values					
Rated Debt Investments		Fair Quality Ratings			
		AAAm			
	_				
Local Government Investment Pool	\$	5,289,604			
Virginia State Non-Arbitrage Program		4,099,627			
Total	\$	9,389,231			

Notes to Financial Statements As of June 30, 2019 and 2018 (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 maturities (in years)								
Investment type		Fair Value		Less than 1 yr				
Local Government Investment Pool	\$	5,289,604	\$	5,289,604				
Virginia State Non-Arbitrage Program	_	4,099,627	_	4,099,627				
Total	\$	9,389,231	\$	9,389,231				

NOTE 4-RESTRICTED ASSETS:

Restricted assets and net position at June 30, 2019 and 2018 consist of the following:

		Balance June 30, 2019		Balance June 30, 2018
Restricted Assets:				
Security deposits and construction meter deposits	\$	152,693	\$	203,275
Performance bonds		90,007		90,007
Opal water system		369,386		369,386
Unexpended bond proceeds	_	3,880,593	_	5,192,812
Total restricted assets	\$	4,492,679	\$	5,855,480
Restricted net position:				
Less:				
Security deposits and construction meter deposits		(152,693)		(203,275)
Performance bonds		(90,007)		(90,007)
Unexpended bond proceeds	_	(3,880,593)	_	(5,192,812)
Total restricted net position	\$	369,386	\$	369,386

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 5-DUE TO/FROM OTHER GOVERNMENTS:

At June 30, 2019 and 2018, respectively, the Authority has receivables from other governments as follows:

	Balance June 30, 2019	Balance June 30, 2018
Fauquier County	\$ 100,000	\$ 119,922
Total	\$ 100,000	\$ 119,922

NOTE 6-CAPITAL ASSETS:

Property and Equipment

The following is a summary of changes to property and equipment for the year ending June 30, 2019:

		Balance July 1,			Balance June 30,
	_	2018	Additions	Deletions	2019
Capital assets, not being depreciated: Land Construction in progress	\$	651,060 \$ 3,212,677	- \$ 2,597,340	- \$ 2,469,129	651,060 3,340,888
Total capital assets not being depreciated	\$_	3,863,737 \$	2,597,340 \$	2,469,129 \$	3,991,948
Capital assets being depreciated: Structures and improvements Infrastructure Vehicles	\$	56,239,263 \$ 55,066,662 1,189,697	2,397,001 \$ 3,846,999 160,975	- \$ - 15,664	58,636,264 58,913,661 1,335,008
Machinery and equipment		13,647,703	332,230	135,020	13,844,913
Total capital assets being depreciated	\$_	126,143,325 \$	6,737,205 \$	150,684 \$	132,729,846
Accumulated depreciation: Structures and improvements Infrastructure Vehicles Machinery and equipment	\$	24,358,216 \$ 15,999,794 847,171 12,628,400	1,940,830 \$ 1,122,475 74,253 184,074	- \$ - 15,664 135,020	26,299,046 17,122,269 905,760 12,677,454
Total accumulated depreciation	\$_	53,833,581 \$	3,321,632 \$	150,684 \$	57,004,529
Total capital assets being depreciated, net	\$_	72,309,744 \$	3,415,573 \$	- \$	75,725,317
Business-type activities capital assets, net	\$_	76,173,481 \$	6,012,913 \$	2,469,129 \$	79,717,265

Depreciation expense for the year ended June 30, 2019 totaled \$3,321,632.

Notes to Financial Statements As of June 30, 2019 and 2018 (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, 2018:

		Balance July 1,			Balance June 30,
	_	2017	Additions	Deletions	2018
Capital assets, not being depreciated: Land Construction in progress	\$	651,060 \$ 1,225,809	- \$ 2,643,517	- \$ 656,649	651,060 3,212,677
Total capital assets not being depreciated	\$_	1,876,869 \$	2,643,517 \$	656,649 \$	3,863,737
Capital assets being depreciated: Structures and improvements Infrastructure Vehicles Machinery and equipment	\$	54,465,503 \$ 53,545,285 1,140,771 13,570,840	1,773,760 \$ 1,521,377 128,090 100,142	- \$ - 79,164 23,279	56,239,263 55,066,662 1,189,697 13,647,703
Total capital assets being depreciated	\$_	122,722,399 \$	3,523,369 \$	102,443 \$	126,143,325
Accumulated depreciation: Structures and improvements Infrastructure Vehicles Machinery and equipment	\$	22,501,938 \$ 14,907,747 864,434 12,463,154	1,856,278 \$ 1,092,047 61,901 188,525	- \$ - 79,164 23,279	24,358,216 15,999,794 847,171 12,628,400
Total accumulated depreciation	\$_	50,737,273 \$	3,198,751 \$	102,443 \$	53,833,581
Total capital assets being depreciated, net Business-type activities capital assets, net	\$_ \$_	71,985,126 \$ 73,861,995 \$	324,618 \$ 2,968,135 \$	- \$ 656,649 \$	72,309,744 76,173,481

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

Computation of net investment in capital assets:

	_	Balance June 30, 2019	Balance June 30, 2018
Net capital assets	\$	79,717,265 \$	76,173,481
Revenue bonds Debt proceeds received but unexpended on capital assets Retainage payable Deferred amount on refunding	_	(12,328,909) 3,880,593 (74,588) (9,853)	(13,762,371) 5,192,812 (166,015) (15,941)
Net investment in capital assets	\$_	71,184,508 \$	67,421,966

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 6-CAPITAL ASSETS: (CONTINUED)

The following is a summary of capital project activity for the fiscal year ending June 30, 2019 and 2018:

		Balance July 1, 2018	Additions	Deletions	Balance June 30, 2019
			Additions	Deletions	2013
New Baltimore Water Tank	\$	795,446 \$	631,731 \$	1,427,177 \$	_
New Baltimore G-4 Well		193,041	519,386	76,647	635,780
I & I Remington and Marshall		662,858	89,241	-	752,099
Remington Sludge Bay Extension		61,564	345,712	-	407,276
Marshall Salem Well		350,886	35,780	-	386,666
Rock Springs Line Replacement		294,192	11,954	306,146	-
Miscellaneous projects	_	854,690	963,536	659,159	1,159,067
Total contruction in progress	\$_	3,212,677 \$	2,597,340 \$	2,469,129 \$	3,340,888
		Balance July 1,			Balance June 30,
	_	2017	Additions	Deletions	2018
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	_	461,656	1,304,288	656,649	1,109,295
Total contruction in progress	\$	1,225,809 \$	2,643,517 \$	656,649 \$	3,212,677

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 7-LONG-TERM OBLIGATIONS:

The following is a summary of changes in long-term obligation transactions for the year ended June 30, 2019 and 2018:

Description		Beginning Balance July 1, 2018	Issuances/ Additions	 Retirements/ Deletions	Ending Balance June 30, 2019	Due Within One Year
Direct borrowings and placements: Revenue bonds	\$	13,762,371 \$	-	\$ 1,433,462_\$	12,328,909 \$	1,339,109
Total direct borrowings and placements	\$	13,762,371 \$	-	\$ 1,433,462 \$	12,328,909 \$	1,339,109
Net OPEB liability Compensated absences	-	241,000 284,068	53,000 142,034	54,000 58,143	240,000 367,959	- 36,796
Total	\$	14,287,439 \$	195,034	\$ 1,545,605 \$	12,936,868 \$	1,375,905
Description		Restated Beginning Balance July 1, 2017	Issuances/ Additions	 Retirements/ Deletions	Ending Balance June 30, 2018	Due Within One Year
Description Direct borrowings and placements: Revenue bonds	<u> </u>	Beginning Balance July 1,	Additions	\$ Deletions	Balance June 30,	Within One Year
Direct borrowings and placements:	 \$_ \$	Beginning Balance July 1, 2017	Additions -	\$ 1,418,375 \$	Balance June 30, 2018	Within One Year
Direct borrowings and placements: Revenue bonds		Beginning Balance July 1, 2017 15,180,746 \$	Additions -	\$ 1,418,375 \$	Balance June 30, 2018	Within One Year 1,433,462

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 7-LONG-TERM OBLIGATIONS: (CONTINUED)

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

		Direct Borrowings and						
		Placeme	nts					
Year E	nding	Revenue Bonds						
June	30,	Principal	Interest					
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		723,017	12,930					
	Total \$_	12,328,909 \$	1,849,526					

Revenue bonds totaling \$12,328,909 contain a provision that in the event of default, the bond owner may declare all amounts payable under the bond to be immediately due and payable.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 7-LONG-TERM OBLIGATIONS: (CONTINUED)

Details of long-term obligations as of June 30, 2019 and 2018 are as follows:

		2019		2018
Direct Borrowings and Placements:	_			
Revenue Bonds:				
\$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%.	\$	2,188,678	\$	2,786,184
\$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 3.38%.		177,222		224,138
Revenue bonds, issued September 20, 2010 payable in 20 semi- annual installments of \$76,051 through September 1, 2018 with a final installment of \$51,143 due March 1, 2019, interest at 3.12%.		-		125,240
\$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 2.52%.		2,086,521		2,220,626
\$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 2.52%.		6,036,920		6,424,924
Revenue bonds, issued July 9, 2009 payable in 35 semiannual installments of \$103,810 through September 1, 2029, 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.	_	1,839,568	_	1,981,259
Total Direct Borrowings and Placements	\$	12,328,909	\$	13,762,371
Other Obligations:		0.40.000		0.44.000
Net OPEB liability		240,000		241,000
Compensated absences	_	367,959	_	284,068
Total long-term obligations	\$_	12,936,868	\$ _	14,287,439

Notes to Financial Statements As of June 30, 2019 and 2018 (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. The Authority has outstanding accrued vacation and sick pay at June 30 in the amount of \$367,959 for fiscal year ended June 30, 2019 and \$284,068 for fiscal year ended June 30, 2018.

NOTE 9-LITIGATION:

At June 30, 2019 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, 2019.

Projects		Contract Amount	Expenses to Date	Balance
Remington Sludge Bay Extension	\$_	483,563 \$	331,956	151,607
Total	\$_	483,563 \$	331,956	151,607

NOTE 11-PENSION PLAN:

Plan Description

All full-time, salaried permanent employees of the Authority are automatically covered by a 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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Benefit Structures

The System administers three different benefit structures for covered employees – Plan 1, Plan 2 and Hybrid. Each of these benefit structures has different eligibility criteria, as detailed below.

- a. Employees hired before July 1, 2010, vested as of January 1, 2013, and have not taken a refund, are covered under Plan 1, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced retirement benefit beginning at age 65 with at least 5 years of creditable service or age 50 with at least 30 years of creditable service. Non-hazardous duty employees may retire with a reduced benefit as early as age 55 with at least 5 years of creditable service or age 50 with at least 10 years of creditable service.
- b. Employees hired 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 are covered under Plan 2, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of creditable service or when the sum of their age and service equals 90. Non-hazardous duty employees may retire with a reduced benefit as early as age 60 with at least 5 years of creditable service.
- c. Non-hazardous duty employees hired on or after January 1, 2014 are covered by the Hybrid Plan combining the features of a defined benefit plan and a defined contribution plan. Plan 1 and Plan 2 members also had the option of opting into this plan during the election window held January 1 April 30, 2014 with an effective date of July 1, 2014. Employees covered by this plan are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of creditable service, or when the sum of their age and service equal 90. Employees may retire with a reduced benefit as early as age 60 with at least 5 years of creditable service. For the defined contribution component, members are eligible to receive distributions upon leaving employment, subject to restrictions.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Average Final Compensation and Service Retirement Multiplier

The VRS defined benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the employee's average final compensation multiplied by the employee's total creditable service. Under Plan 1, average final compensation is the average of the employee's 36 consecutive months of highest compensation and the multiplier is 1.7% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents. Under Plan 2, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the retirement multiplier is 1.65% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents. Under the Hybrid Plan, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the multiplier is 1.00%. 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.

Cost-of-Living Adjustment (COLA) in Retirement and Death and Disability Benefits

Retirees with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service are eligible for an annual COLA beginning July 1 after one full calendar year from the retirement date. Retirees with a reduced benefit and who have less than 20 years of creditable service are eligible for an annual COLA beginning on July 1 after one calendar year following the unreduced retirement eligibility date. Under Plan 1, the COLA cannot exceed 5.00%. Under Plan 2 and the Hybrid Plan, the COLA cannot exceed 3.00%. The VRS also provides death and disability benefits. Title 51.1 of the Code of Virginia, as amended, assigns the authority to establish and amend benefit provisions to the General Assembly of Virginia.

Employees Covered by Benefit Terms

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

	June 30, 2017 Number	June 30, 2016 Number
Inactive members or their beneficiaries currently receiving benefits Inactive members:	12	12
Vested inactive members	2	2
Non-vested inactive members	8	11
Inactive members active elsewhere in VRS	11_	9
Total inactive members	21	22
Active members	46	46
Total covered employees	79	80

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Contributions

The contribution requirement for active employees is governed by §51.1-145 of the <u>Code of Virginia</u>, 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.

The Authority's contractually required employer contribution rates for the years ended June 30, 2019 and June 30, 2018 were 3.93% and 4.38%, respectively, of covered employee compensation. These rates were based on actuarially determined rates from actuarial valuations as of June 30, 2017 and June 30, 2015.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$121,771 and \$124,405 for the years ended June 30, 2019 and June 30, 2018, respectively.

Net Pension Liability (Asset)

The net pension liability (asset) is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. The Authority's net pension liability (asset) was measured as of June 30, 2018. The total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuation performed as of June 30, 2017 and rolled forward to the measurement date of June 30, 2018.

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, 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Actuarial Assumptions-General Employees: (Continued)

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.

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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Actuarial Assumptions-General Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 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%

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

Mortality Rates (pre-retirement, post-	Updated to a more current mortality table - RP-2014
retirement healthy, and disabled)	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%

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Long-Term Expected Rate of Return

The long-term expected rate of return on pension System investments was determined using a lognormal 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%.

Discount Rate

The discount rate used to measure the total pension liability 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. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Authority was also provided with an opportunity to use an alternative employer contribution rate. For the year ended June 30, 2018, the alternate rate was the employer contribution rate used in FY 2012 or 90% of the actuarially determined employer contribution rate from the June 30, 2015 actuarial valuations, whichever was greater. From July 1, 2018 on, participating employers are assumed to continue 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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

Changes in Net Pension Liability (Asset)

			In	crease (Decreas	e)	
	_	Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2017	\$_	6,832,685	\$_	6,926,133	\$_	(93,448)
Changes for the year:						
Service cost	\$	244,681	\$	-	\$	244,681
Interest		469,509		-		469,509
Changes of assumptions		-		-		-
Differences between expected						
and actual experience		19,035		-		19,035
Contributions - employer		-		119,358		(119,358)
Contributions - employee		-		143,020		(143,020)
Net investment income		-		515,935		(515,935)
Benefit payments, including refunds						
of employee contributions		(250,832)		(250,832)		-
Administrative expenses		-		(4,358)		4,358
Other changes		-	_	(544)	_	544
Net changes	\$_	482,393	\$_	522,579	\$_	(40,186)
Balances at June 30, 2018	\$	7,315,078	\$_	7,448,712	\$_	(133,634)

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

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

			In	crease (Decreas	e)	
	_	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)

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 (asset) 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%)	
2019					
Authority's Net Pension Liability (Asset)	\$	1,011,566 \$	(133,634) \$	(1,064,688)	
2018	_				
Authority's Net Pension Liability (Asset)		981,476	(93,448)	(968,683)	

Notes to Financial Statements As of June 30, 2019 and 2018 (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, 2019, the Authority recognized pension expense of \$39,838. At June 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	_	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 139,321	\$	37,583
Change in assumptions	-		117,723
Net difference between projected and actual earnings on pension plan investments	-		67,309
Employer contributions subsequent to the measurement date	105,891	_	
Total	\$ 245,212	\$	222,615

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:

	Deferred Outflows of Resources	_	Deferred Inflows of Resources
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	_	<u> </u>
Total	\$ 310,048	\$	308,271

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 11-PENSION PLAN: (CONTINUED)

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

\$105,891 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 (increase) of the Net Pension Asset in the fiscal year ending June 30, 2020. 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:

Year ended June 30	_	
	_	
2020	\$	34,502
2021		(5,171)
2022		(103,604)
2023		(9,356)
2024		335
Thereafter		_

\$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 (increase) of the Net Pension Asset in the fiscal year ending 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:

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

Pension Plan Data

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2018 Comprehensive Annual Financial Report (CAFR). A copy of the 2018 VRS CAFR may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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

Plan Description

The Group Life Insurance (GLI) Program was established pursuant to §51.1-500 et seq. of the <u>Code of Virginia</u>, as amended, and which provides the authority under which benefit terms are established or may be amended. All full-time, salaried permanent employees of the state agencies, teachers, and employees of participating political subdivisions are automatically covered by the VRS GLI 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.

In addition to the Basic GLI benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional GLI 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 GLI Program OPEB.

The specific information for GLI OPEB, including eligibility, coverage and benefits is described below:

Eligible Employees

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

Benefit Amounts

The GLI Program is a defined benefit plan with several components. The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled. The accidental death benefit is double the natural death benefit. In addition to basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances that include the following: accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option. The benefit amounts 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. For covered members with at least 30 years of creditable service, the minimum benefit payable was set at \$8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and was increased to \$8,279 effective July 1, 2018.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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

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, 2019 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Group Life Insurance Program from the entity were \$16,112 and \$15,732 for the years ended June 30, 2019 and June 30, 2018, respectively.

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

At June 30, 2019, the entity reported a liability of \$240,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2018 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, 2018 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2018, the participating employer's proportion was 0.01579% as compared to 0.01604% at June 30, 2017.

For the year ended June 30, 2019, the participating employer recognized GLI OPEB expense of \$3,000. 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.

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.

Notes to Financial Statements As of June 30, 2019 and 2018 (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)

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 12,000	\$ 4,000
Net difference between projected and actual earnings on GLI OPEB program investments	-	8,000
Change in assumptions	-	10,000
Changes in proportion	11,000	3,000
Employer contributions subsequent to the measurement date	16,112	
Total	\$ 39,112	\$ 25,000

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:

	Deferred Outflows of Resources	Deferred Inflows of Resources
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	15,732	
Total	\$ 28,732	\$ 27,000

Notes to Financial Statements As of June 30, 2019 and 2018 (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)

\$16,112 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, 2020. 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	
2020	\$ (3,000)
2021	(3,000)
2022	(3,000)
2023	1,000
2024	4,000
Thereafter	2,000

\$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		_

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018. The assumptions include several employer groups as noted below. Mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS CAFR.

Inflation	2.5%
Salary increases, including inflation: General state employees Teachers SPORS employees VaLORS employees JRS employees Locality - General employees Locality - Hazardous Duty employees	3.5%-5.35% 3.5%-5.95% 3.5%-4.75% 3.5%-4.75% 4.5% 3.5%-5.35% 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.

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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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

Actuarial Assumptions: (Continued)

Mortality Rates-Non-Largest Ten Locality Employers-General Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 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-	Updated to a more current mortality table - RP-2014
retirement healthy, and disabled)	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%

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.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

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

Actuarial Assumptions: (Continued)

Mortality Rates-Non-Largest Ten Locality Employers-General Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 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-	Updated to a more current mortality table - RP-2014
retirement healthy, and disabled)	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%

NET GLI OPEB Liability

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

Group Life Insurance

		OPEB Pi	
	_	2018	2017
Total GLI OPEB Liability Plan Fiduciary Net Position Employers' Net GLI OPEB Liability (Asset)	\$ \$	3,113,508 \$ 1,594,773 1,518,735 \$	1,437,586
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	*=	51.22%	48.86%

Notes to Financial Statements As of June 30, 2019 and 2018 (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:

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 arithm	etic 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%.

Notes to Financial Statements As of June 30, 2019 and 2018 (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 ended June 30, 2018, 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 which was 100% of the actuarially determined contribution rate. From July 1, 2018 on, employers are assumed to continue 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% Inci	rease
	-	(6.00%)		(7.00%)	(8.00	%)
2019	_			_		
Authority's proportionate share of the Group Life Insurance Program Net OPEB Liability	\$	313,000	\$	240,000 \$	180	,000
2018	_					
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 GLI Program's Fiduciary Net Position is available in the separately issued VRS 2018 Comprehensive Annual Financial Report (CAFR). A copy of the 2018 VRS CAFR may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 13-RISK MANAGEMENT:

A. The Authority

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disasters.

The Authority is a member of the Virginia Risk Sharing Association (VRSA) for its property, automobile, liability, public officials, and workers' compensation coverage. Each association member jointly and severally agrees to assume, pay and discharge any liability. The Authority pays VRSA 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 carries commercial insurance for all risks of loss. During the last three fiscal years, settled claims from these risks have not exceeded commercial coverage.

B. Health and Dental

Anthem Blue Cross and Blue Shield administers the group health insurance and prescription programs and Delta Dental administers the group dental insurance for employees and their dependents. The plans are self-insured by the Authority under Fauquier County. The Authority collects employee contributions bi-monthly. Anthem processes claims from the hospitals, doctors, and other health care providers. Fauquier County is then billed for these paid claims and must reimburse Anthem for these costs. Fauquier County then bills the Authority their portion of the claims and administration fees. The program is a minimum premium design subject to an aggregate attachment point and a specific stop loss of \$50,000. The stop loss coverage was carved out of the Anthem policy and is administered by Symetra. Symetra insures both medical and prescription claims that are in excess of \$50,000. Symetra reimburses the Authority for the amount. The premiums the Authority pays Symetra are based on covered employees.

The dental plans are fully insured by Delta Dental and administered by Fauquier County. Delta Dental processes claims, from dentists and other dental providers, and pays these claims. The Authority is only responsible for the premiums set by Delta Dental.

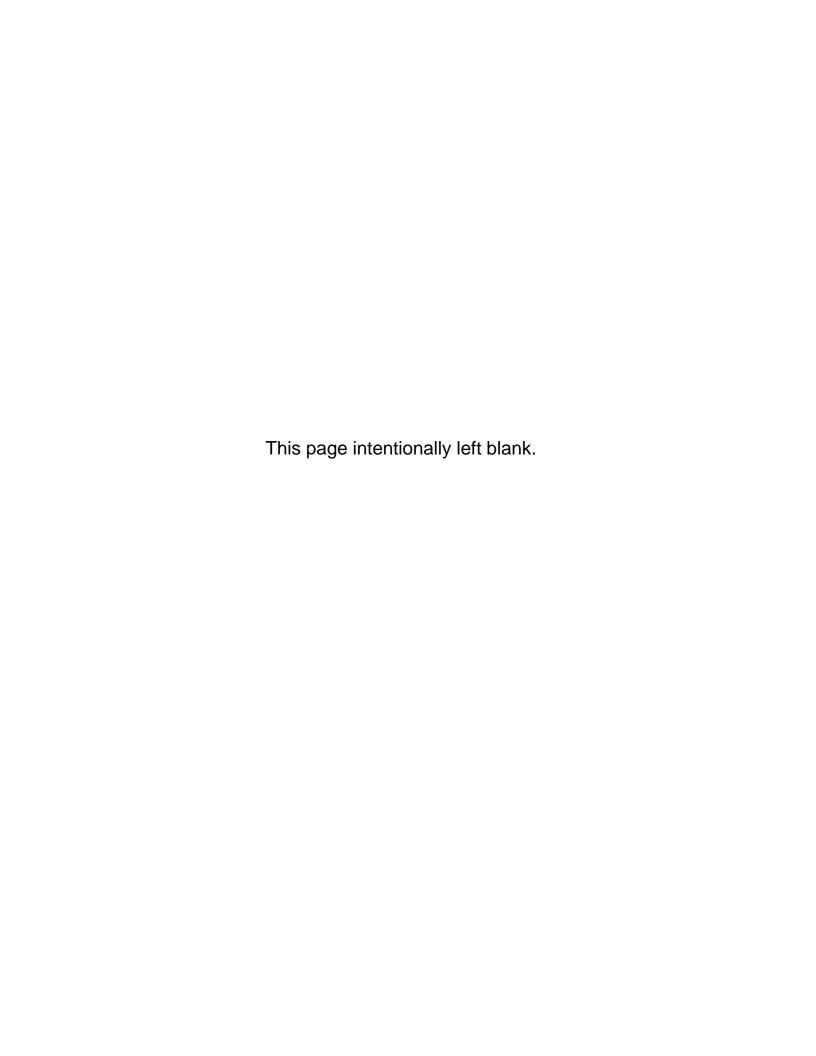
The Authority has a Health Insurance Reserve of \$50,000 held by Fauquier County for claims run out in case of termination of the self-insured plan. In addition, the Authority Board restricted \$40,000 in a fund for health insurance.

Notes to Financial Statements As of June 30, 2019 and 2018 (Continued)

NOTE 14-ADOPTION OF ACCOUNTING PRINCIPLE:

The Authority implemented the financial reporting provisions of Governmental Accounting Standards Board Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements* during the fiscal year ended June 30, 2019. This Statement clarifies which liabilities governments should include when disclosing information related to debt. It also requires that additional essential information related to debt be disclosed in notes to financial statements. No restatement was required as a result of this implementation.

Required Supplementary Information



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

For the Measurement Dates of June 30, 2014 through June 30, 2018

		2018	2017	2016	2015	2014
Total pension liability						
Service cost	\$	244,681 \$	235,183 \$	210,790 \$	210,819 \$	233,185
Interest		469,509	454,867	411,798	381,354	351,577
Changes in assumptions		-	(192,707)	-	-	-
Difference between expected and actual experience		19,035	(61,521)	245,293	78,832	-
Benefit payments, including refunds of employee contributions	_	(250,832)	(202,483)	(302,722)	(169,477)	(149,264)
Net change in total pension liability	\$	482,393 \$	233,339 \$	565,159 \$	501,528 \$	435,498
Total pension liability - beginning	_	6,832,685	6,599,346	6,034,187	5,532,659	5,097,161
Total pension liability - ending (a)	\$	7,315,078 \$	6,832,685 \$	6,599,346 \$	6,034,187 \$	5,532,659
	-					
Plan fiduciary net position						
Contributions - employer	\$	119,358 \$	120,399 \$	141,775 \$	131,280 \$	166,227
Contributions - employee		143,020	141,283	162,447	128,938	121,744
Net investment income		515,935	755,805	106,166	264,236	766,252
Benefit payments, including refunds of employee contributions		(250,832)	(202,483)	(302,722)	(169,477)	(149, 264)
Administrative expense		(4,358)	(4,233)	(3,680)	(3,477)	(3,968)
Other	_	(544)	(754)	(45)	(56)	41
Net change in plan fiduciary net position	\$	522,579 \$	810,017 \$	103,941 \$	351,444 \$	901,032
Plan fiduciary net position - beginning	_	6,926,133	6,116,116	6,012,175	5,660,731	4,759,699
Plan fiduciary net position - ending (b)	\$	7,448,712 \$	6,926,133 \$	6,116,116 \$	6,012,175 \$	5,660,731
Authority's net pension liability (asset) - ending (a) - (b)	\$	(133,634) \$	(93,448) \$	483,230 \$	22,012 \$	(128,072)
Plan fiduciary net position as a percentage of the total						
pension liability		101.83%	101.37%	92.68%	99.64%	102.31%
Covered payroll	\$	3,002,308 \$	2,959,345 \$	2,728,127 \$	2,495,933 \$	2,386,659
Authority's net pension (asset) liability as a percentage						
of covered payroll		-4.45%	-3.16%	17.71%	0.88%	-5.37%

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.

Schedule of Employer Contributions - Pension Plan Years Ended June 30, 2010 through June 30, 2019

Date	Contractually Required Contribution (1)	_	Contributions in Relation to Contractually Required Contribution (2)	۱ -	Contribution Deficiency (Excess) (3)	 Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2019	\$ 105,891	\$	105,891	\$	-	\$ 3,098,487	3.93%
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%

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

Notes to Required Supplementary Information Year Ended June 30, 2019

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

Changes of assumptions – The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the 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
healthy, and disabled)	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%

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

All Others (Non 10 Largest) - Non-Hazardous Duty.	
Mortality Rates (pre-retirement, post-retirement	Updated to a more current mortality table - RP-2014 projected
healthy, and disabled)	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%

Schedule of Authority's Share of Net OPEB Liability Group Life Insurance Program For the Measurement Dates of June 30, 2018 and 2017

Date (1)	Employer's Proportion of the Net GLI OPEB Liability (Asset) (2)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset)	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)
2018	0.01579% \$	240,000	\$ 3,002,308	7.99%	51.22%
2017	0.01604%	241,000	2,959,345	8.14%	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.

Schedule of Employer Contributions Group Life Insurance Program For the Years Ended June 30, 2010 through June 30, 2019

Date	 Contractually Required Contribution (1)	 Contributions in Relation to Contractually Required Contribution (2)	 Contribution Deficiency (Excess) (3)	 Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2019	\$ 16,112	\$ 16,112	\$ -	\$ 3,098,487	0.52%
2018	15,732	15,732	-	3,002,308	0.52%
2017	15,389	15,389	-	2,959,345	0.52%
2016	13,095	13,095	-	2,728,127	0.48%
2015	11,994	11,994	-	2,498,762	0.48%
2014	11,456	11,456	-	2,386,659	0.48%
2013	11,265	11,265	-	2,346,852	0.48%
2012	6,267	6,267	-	2,238,283	0.28%
2011	6,160	6,160	-	2,200,037	0.28%
2010	4,402	4,402	-	2,184,230	0.20%

Notes to Required Supplementary Information Group Life Insurance Program Year Ended June 30, 2019

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

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

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%

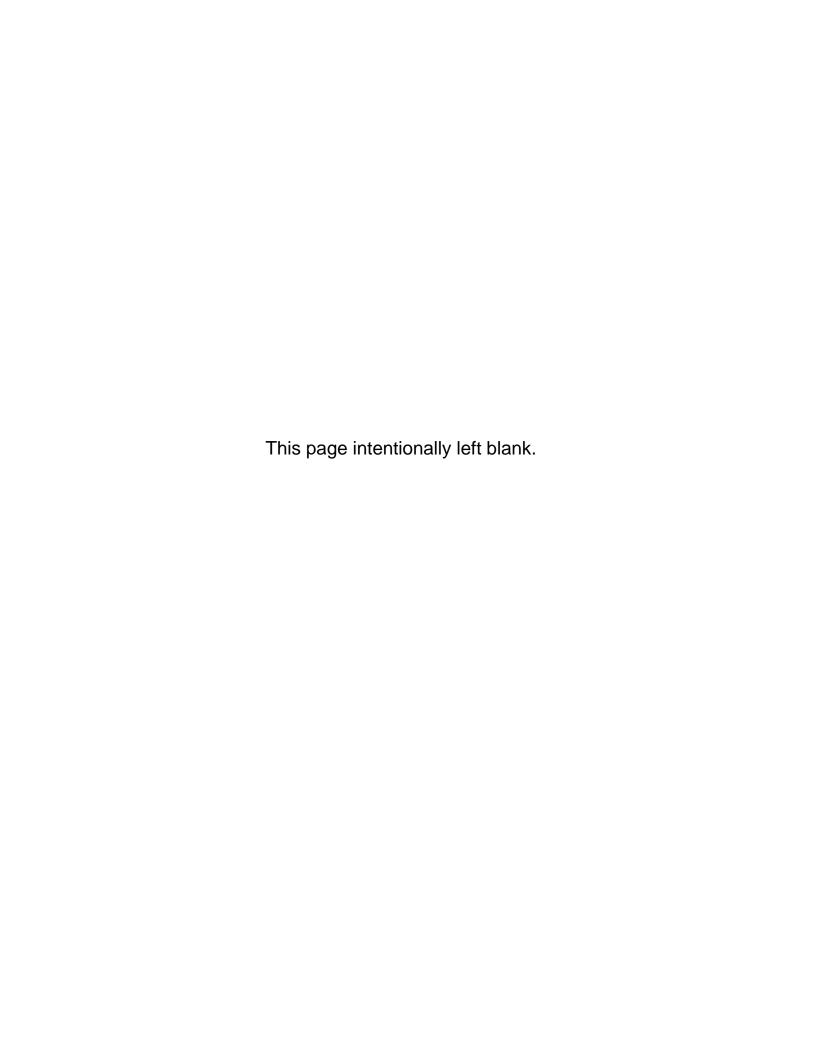
Non-Largest Ten Locality Employers - General Employees

ton-Largest ren Locality Employers - General	Linployees
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%

Statistical Section

<u>Contents</u>	<u>Tables</u>
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 compre	hensive

annual financial reports for the relevant year.



Net Position by Component Last Ten years

	_		F	Fiscal Years		
		2019	2018	2017	2016	2015
Net position:						
Net Investment in capital assets Restricted	\$	71,184,508 \$	67,421,966 \$	64,987,481 \$	65,074,202 \$	60,030,622
Unrestricted	_	369,386 15,325,543	369,386 13,320,422	468,724 10,881,809	7,996,376	8,011,147
Total net position	\$	86,879,437 \$	81,111,774 \$	76,338,014 \$	73,070,578 \$	68,041,769
			ı	Fiscal Years		
		2014	2013	2012	2011	2010
Net position:						
Net Investment in capital assets	\$	58,184,968 \$	54,323,804 \$	53,333,168 \$	53,412,822 \$	52,245,846
Restricted		111,972	-	31,915	445,567	982,474
Unrestricted	-	7,413,933	5,110,621	4,339,839	2,525,847	1,328,083
Total net position	\$	65,710,873 \$	59,434,425 \$	57,704,922 \$	56,384,236 \$	54,556,403

Changes in Net Position Last Ten Years

	_	2019	2018	2017
Operating revenues:				
Water service	\$	4,793,437 \$	4,630,031 \$	4,351,789
Sewer service		5,144,754	4,867,411	4,515,284
Septic service		388,808	364,114	387,223
Late charges		181,607	194,015	163,712
Other operating revenues	_	276,633	368,109	420,630
Total operating revenues	\$_	10,785,239 \$	10,423,680 \$	9,838,638
Operating expenses:				
Salaries	\$	3,093,075 \$	3,167,950 \$	3,135,875
Fringe benefits		837,296	872,536	984,579
General and administrative		497,459	639,812	584,324
Operations and maintenance		2,463,265	2,311,448	2,359,475
Depreciation expense		3,321,632	3,198,751	3,304,507
Total operating expenses	\$_	10,212,727 \$	10,190,497 \$	10,368,760
Net operating income (loss)	\$_	572,512 \$	233,183 \$	(530,122)
Nonoperating revenue (expenses):				
Availability fees	\$	1,670,737 \$	3,043,318 \$	2,295,031
Interest earned		299,055	221,570	81,424
Interest expense		(315,493)	(349,662)	(250,894)
Net nonoperating revenue (expenses)	\$	1,654,299 \$	2,915,226 \$	2,125,561
Net income (loss) before capital contributions	\$	2,226,811 \$	3,148,409 \$	1,595,439
Capital Contributions	_	3,540,852	1,875,351	1,671,997
Change in net position	\$	5,767,663 \$	5,023,760 \$	3,267,436
Net position, at beginning of year	_	81,111,774 *	76,088,014	73,070,578
Net position, at end of year	\$_	86,879,437 \$	81,111,774 \$	76,338,014

^{*} 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.

	2016	2015	2014	2013	2012	2011	2010
-							
\$	3,438,450 \$	3,519,398 \$	3,290,504 \$	3,278,523 \$	3,110,188 \$	3,150,219 \$	2,807,897
·	3,874,505	3,524,999	3,390,211	3,202,582	3,178,717	3,132,887	2,807,471
	337,780	295,896	222,908	490,042	468,705	176,063	87,990
	129,880	151,975	161,898	147,231	171,640	147,980	129,235
_	334,378	383,291	328,601	294,476	267,671	148,189	347,874
\$	8,114,993 \$	7,875,559 \$	7,394,122 \$	7,412,854 \$	7,196,921 \$	6,755,338 \$	6,180,467
\$	2,848,966 \$	2,622,093 \$	2,515,181 \$	2,338,834 \$	2,308,237 \$	2,172,426 \$	2 162 407
Φ	2,040,900 \$ 1,138,118	882,093 \$	829,358	2,336,634 \$ 926,274	2,306,237 \$ 847,748	786,446	2,163,497 748,240
	556,190	477,316	537,264	388,643	428,523	400,482	406,526
	2,128,639	2,082,445	2,192,251	1,768,958	1,419,252	1,388,562	1,366,460
	3,063,090	2,982,641	3,276,736	3,002,676	2,599,488	2,521,187	2,485,492
\$	9,735,003 \$	9,046,588 \$	9,350,790 \$	8,425,385 \$	7,603,248 \$	7,269,103 \$	7,170,215
\$_	(1,620,010) \$	(1,171,029) \$	(1,956,668) \$	(1,012,531) \$	(406,327) \$	(513,765) \$	(989,748)
ው	2,095,670 \$	1 052 000 ¢	2 607 466	1 160 001 ft	602 F42	E20 6E6	246 255
\$	2,095,670 \$ 31,869	1,952,908 \$ 40,078	3,687,466 \$ 32,504	1,168,821 \$ 26,253	603,542 \$ 32,346	520,656 \$ 34,240	316,255 26,370
	(168,652)	(188,494)	(219,958)	(495,053)	(331,064)	(370,451)	(339,834)
\$	1,958,887 \$	1,804,492 \$	3,500,012 \$	700,021 \$	304,824 \$	184,445 \$	2,791
Ψ_	1,930,007 φ_	1,004,492 φ_	<u> </u>	700,021 φ_		104,445 ψ_	2,791
\$	338,877 \$	633,463 \$	1,543,344 \$	(312,510) \$	(101,503) \$	(329,320) \$	(986,957)
·	, ,	, .	, , ,	, , , ,	(, , , .	, , , ,	(, , ,
_	4,689,932	1,868,668	4,733,104	2,042,013	1,422,189	1,730,322	7,791,691
_							
\$	5,028,809 \$	2,502,131 \$	6,276,448 \$	1,729,503 \$	1,320,686 \$	1,401,002 \$	6,804,734
	68,041,769	65,539,638	59,434,425	57,704,922	56,384,236	54,983,234	47,751,669
-							11,101,000
\$_	73,070,578 \$	68,041,769 \$	65,710,873 \$	59,434,425 \$	57,704,922 \$	56,384,236 \$	54,556,403

Schedule of Revenues Last Ten Fiscal Years

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

Schedule of Rates Last Ten Years

Fiscal Year	Water Usage Fee (1)		Water Base Service Fees			Sewer Usage Fee (2)	 Sewer Base Service Fees
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		4.06		25.59		8.48	25.86
2018		4.35		27.39		9.07	27.67
2019		4.48		28.21		9.34	28.50

⁽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.

Schedule of New Connections
Last Ten Fiscal Years

		WATER		SEWER					
Fiscal Year	New Connections	Cumulative Connections	% of Growth	New Connections	Cumulative Connections	% of Growth			
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	5,579	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%			
2019	159	6,180	2.64%	143	4,339	3.41%			

Source: Fauquier County Water and Sanitation Authority connection records

^{*} 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

Calendar Year					
2010	509,661,403	486,697,800			
2011	525,137,807	442,022,000			
2012	536,037,859	469,519,300			
2013	534,209,766	480,046,100			
2014	537,318,945	558,264,400			
2015	546,562,030	461,156,400			
2016	545,205,211	546,088,100			
2017	596,703,569	461,951,400			
2018	573,800,866	512,976,900			
2019	553,532,301	749,957,300			

Schedule of Operating Expenses Last Ten Fiscal Years

Fiscal Years	 Salaries	Fringe Benefits	General & Administrative	Operations & Maintenance	Depreciation Expense	 Total
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
2019	3,093,075	837,296	497,459	2,463,265	3,321,632	10,212,727

Outstanding Debt by Type Last Ten Fiscal Years

				Fiscal Year		
	_	2019	2018	2017	2016	2015
Note Payable - Brookside	\$	- \$	- \$	- \$	- \$	_
Revenue Refunding Bond 2017	*	2,086,521	2,220,626	2,350,262	-	_
Revenue Refunding Bond 2017		6,036,920	6,424,924	6,800,000	_	_
Revenue Bond 7-9-2009		1,839,568	1,981,259	2,119,172	2,253,410	2,384,070
Revenue Bond 9-20-10		-	125,240	270,038	410,421	546,525
Revenue Bond 11-16-2012		-	-	-	1,949,592	273,176
Revenue Refunding Bond 2012		2,188,678	2,786,184	3,371,772	3,945,678	4,508,136
Revenue Refunding Bond 2012	_	177,222	224,138	269,502	313,364	355,775
Total outstanding debt	\$_	12,328,909 \$	13,762,371 \$	15,180,746 \$	8,872,465 \$	8,067,682
Debt per capita (1)	\$_	176_\$_	401_\$_	442 \$	281_\$_	280
				Fiscal Year		
	_	2014	2013	2012	2011	2010
	-					
Notes Payable VHEDA	\$	- \$	- \$	- \$	938,800 \$	938,800
Note Payable - Brookside		-	516,150	516,150	525,450	525,450
Notes Payable Opal system		-	-	-	451,831	451,831
VRA Water Revenue Bond		-	-	455,811	491,089	519,019
VRA Water Revenue Bond		-	-	1,575,992	1,704,310	1,811,460
VRA Water Revenue Bond		-	-	1,246,396	1,326,713	1,404,247
Revenue Bond 7-9-2009		2,507,394	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		678,480	806,412	1,127,971	1,242,201	-
Revenue Bond 11-16-2012		80,341	80,341	-	-	-
Revenue Refunding Bond 2012		5,059,374	5,599,617	-	-	-
Revenue Refunding Bond 2012		396,782	436,432	-	-	-
Virginia Water Facility Bond		-	-	180,000	350,000	515,000
Virginia Water Facility Bond	-		<u> </u>	<u> </u>		4,090,499
Total outstanding debt	\$_	8,722,371 \$	10,061,869 \$	10,951,723 \$	13,351,383 \$	13,160,087
Debt per capita	\$_	289 \$	345 \$	382 \$	476_\$_	476

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

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

		Direct	Net Revenue	Debt Service Requirements				
Fiscal Year	Gross Revenue	Operating Expenses	Available for Debt Service	Principal	Interest	Total	Coverage	
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	
2019	12,755,031	6,891,095	5,863,936	1,339,109	295,404	1,634,513	3.59	

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 Borrow's ownership or operation of the System, excluding customer and other deposits subject to refund until such deposits have become the Borrow'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.

Demographic and Economic Statistics Last Ten Fiscal Years

Year	Estimated Population (1)	Personal Income (expressed in thousands) (2)	Per Capita Personal Income (2)	Unemployment Rate (3)	County Civilian Labor Force (3)	At-Place Employment Annual Average (3)	School Enrollment (4)
2010	65,203 \$	3,593,026 \$	54,871	6.1%	36,270	20,133	11,222
2011	65,460	3,823,425	57,797	5.7%	36,637	20,771	11,241
2012	65,780	4,096,730	61,441	5.4%	36,761	21,381	11,201
2013	66,131	3,992,753	59,326	5.2%	36,742	21,212	11,032
2014	66,573	4,081,897	59,695	4.8%	36,696	21,070	11,084
2015	67,512	4,316,279	62,832	4.2%	36,618	21,517	11,055
2016	67,898	4,410,308	63,854	3.7%	36,294	22,043	11,042
2017	68,168	4,637,197	66,756	3.4%	36,989	22,093	11,007
2018	69,098	*	*	2.8%	37,613	22,021	11,104
2019	70,150	*	*	2.6%	37,765	*	11,153

- 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

	2019 2010				
Employer	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	
Blue Ridge Orthopaedic Associates	9	100 to 249			
Smith Midland Corporation	10	100 to 249			
Warrenton Overlook Health & Rehab Center			8	250 to 499	
The Fauquier Bank			10	250 to 499	

Source: Virginia Employment Commission Top 50 Employers

Operating and Capital Indicators Last Ten Fiscal Years

	FY2019	FY2018	FY2017	FY2016	FY 2015	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
Water System:										
Number of water systems	16	16	16	16	16	16	14	14	14	14
Number of service connections	6034	6021	5888	5717	5,576	5,466	5,279	5,170	5,063	4,973
Miles of water mains	143	143	142	142	141	127	100	100	100	100
Daily average consumption per MGD	1.89	1.42	1.63	1.49	1.38	1.365	1.34	1.323	1.455	1.455
Average daily water distributed per MGD	1.89	1.42	1.63	1.49	1.38	1.365	1.34	1.323	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	5.154
Sewerage System:										
Number of treatment plants	3	3	3	3	3	3	3	3	3	3
Number of pump stations	15	15	14	14	14	14	13	13	16	16
Number of service connections	4339	4196	4062	3927	3,812	3,697	3,586	3,502	3,388	3,274
Miles of sanitary sewer mains	96	96	91	91	91	91	82	82	82	82
Daily average treatment per MGD	0.857	1.28	1.328	1.492	1.254	1.365	1.319	1.289	1.289	0.939
Design capacity of treatment plants per MGD	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.236	3.236	2.886
Number of Full-Time Employees:	47	47	47	46	46	42	44	44	44	45

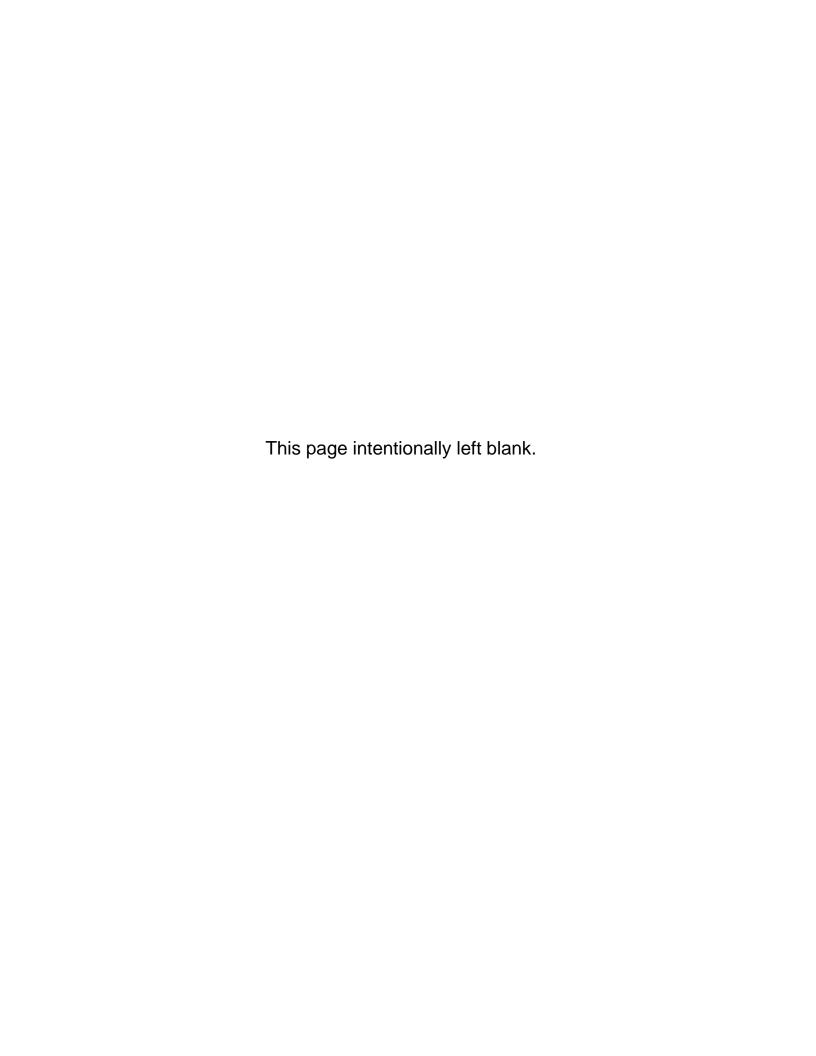
MGD - Million Gallon per Day

^{*} Table has been restated in prior years per new information provided to management

Principal Water and Sewer Customers Last Ten Fiscal Years

		20	19	FY 2	018	FY 2	2017
			% of		% of		% of
Principal Users of the Water System	Principal Business	000/Gals	System	000/gals	System	000/gals	System
FAUQUIER COUNTY PUBLIC SCHOOLS	Public Schools	9,752	1.89%	11,945	2.01%	11,667	1.96%
FEDERAL AVIATION ADM	Federal FFA buliding	6,846	1.33%	5,064	0.85%	13,657	2.30%
CHUCK DAVIS	ODEC	6,090	1.18%	7,230	1.22%	6,683	1.12%
ASPEN SOUTH	Apartments	4,900	0.95%	2,638	0.44%	5,826	0.98%
CEDAR LEE CONDO ASSOCIATES	Apartments	3,500	0.68%	2,654	0.45%	6,960	1.17%
WAVERLY STATION	Apartments	1,901	0.37%	1,611	0.27%	3,273	0.55%
SUFFIELD MEADOW CONDO	Condos	1,889	0.37%	1,142	0.19%	5,577	0.94%
NORTH FORTY ASPEN PLUS	Apartments	1,330	0.26%	1,628	0.27%	3,757	0.63%
BROOKSIDE HOA	Homeowners Association	977	0.19%	1,029	0.17%	4,313	0.72%
BEALETON VILLAGE CENTER LLC	Shopping Center	985	0.19%	1,020	0.1770	4,010	0.7270
VAN MANAGEMENT INC	Marshall McDonalds	303	0.1370	1,028	0.17%	2,022	0.34%
WAKEFIELD SCHOOL	Private School			1,020	0.17 /0	2,022	0.5476
CEDAR LEE CONDO ASSOCIATES	Apartments						
ASPEN CLUB APTS/NORTH 40	Apartments						
R. B. DRUMHELLER INC.	Bealeton McDonalds						
R. B. DRUMMELLER INC.	bealeton wicDonalds						
Total		38,170	7.40%	9,092	1.76%	63,735	10.71%
Total				- 0,002		- 00,700	
Total Water System Annual Consumption		553,532		573,800		596,703	
Principal Users of the Sewer System	Principal Business	000/gals	System	000/gals	System	000/gals	System
FAUQUIER COUNTY PUBLIC SCHOOLS	Public Schools	12,189	3.89%	10,985	2.26%	9,632	1.99%
FEDERAL AVIATION ADM	Federal FFA building	5,156	1.65%	5,064	1.04%	13,657	2.82%
CEDAR LEE CONDO ASSOCIATES	Condos	4,628	1.48%	2.654	0.55%	6.960	1.44%
ASPEN SOUTH	Apartments	3,528	1.13%	2,638	0.54%	5,826	1.20%
WAVERLY STATION	Apartments	1,884	0.60%	1,611	0.33%	3,273	0.67%
SHEETZ # 221 UTILITIES	Convenience Store, Gas Station	1,581	0.51%	2,128	0.44%	2,227	0.46%
NORTH FORTY ASPEN PLUS	Apartments	1,565	0.50%	1,628	0.34%	3,757	0.77%
OPAL OIL, INC.	Quarles Q Stop	1,293	0.41%	1,020	0.0470	3,737	0.7770
BROOKSIDE HOA	Homeowners Association	1,007	0.32%	259	0.05%	4,313	0.89%
BEALETON VILLAGE CENTER LLC	Shopping Center	375	0.32%	930	5.18%	1,981	0.69%
VAN MANAGEMENT INC	Marshall McDonalds	3/3	0.1276		0.21%		0.41%
				1,028	0.21%	2,022	0.42%
BLUE RIDGE CHRISTIAN HOME	Nursing Home						
ASPEN CLUB APTS/NORTH 40	Apartments						
R. B. DRUMHELLER INC.	Bealeton McDonalds						
WAKEFIELD SCHOOL	Private School						
CHUCK DAVIS	ODEC						
Total		33,206	10.61%	17,940	3.85%	53.648	11.06%
iotai		55,200	10.01/0	17,040	0.0070	55,040	11.00/0

FY 2	016	FY 2	015	FY 2	014	FY 2	013	FY 2	012	FY 2	011	FY 2	010
	% of		% of		% of		% of		% of		% of		% of
000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System
12,252	2.32%	9,946	1.96%	10,696	2.26%	9,684	2.05%	13,035	2.76%	17,338	3.61%	11,394	2.37%
2,470	0.47%	3,646	0.72%	3,911	0.83%	3,661	0.77%	4,487	0.95%	4,643	0.97%	2,552	0.53%
8,900	1.68%	3,765	0.74%	9,029	1.91%	299	0.06%	1,931	0.41%	957	0.20%	361	0.08%
3,191	0.60%	3,165	0.62%	3,223	0.68%	3,168	0.67%	2,963	0.63%	3,348	0.70%	2,939	0.61%
2,880	0.54%	3,562	0.70%			1,840	0.39%	526				488	0.10%
1,422	0.27%	1,520	0.30%	1,507	0.32%	1,055	0.22%	717	0.15%			910	0.19%
12,605	2.38%	2,485	0.49%	3,480	0.74%	3,193	0.68%	773	0.16%				
1,754	0.33%	1,730	0.34%	1,520	0.32%	1,402	0.30%	4,900	1.04%	1,649	0.34%	1,479	0.31%
1,047	0.20%												
		794	0.16%			6,667	1.41%	1,377	0.29%	1,012	0.21%		
		1,030	0.20%	1,234	0.26%			1,280	0.27%	1,462	0.30%	1,224	0.26%
		772	0.15%			448	0.09%	586	0.12%		0.00%	871	0.19%
2,880	0.54%	3,562	0.70%			1,840	0.39%	526				488	0.10%
1,080	0.20%	1,879	0.37%	2,347	0.50%	2,753	0.58%	2,084	0.44%	3,231	0.67%	2,717	0.57%
		790	0.16%	852	0.18%								
48,011	9.08%	35,000	6.90%	33,888	7.17%	32,349	6.83%	30,698	6.27%	28,997	6.04%	22,871	4.78%
545,205		546,562		537,318		534,209		536,137		525,137		509,661	
040,200		010,002		007,010		004,200		000,107		020,107		000,001	
000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System	000/gals	System
12,835	2.50%	9,885	1.91%	10,025	1.99%	8,397	1.67%	12,837	2.55%	15,024	3.35%	10,090	2.25%
2,470	0.48%	3,646	0.71%	3,911	0.78%	3,660	0.73%	4,487	0.89%	4,643	1.03%	2,552	0.57%
2,880	0.56%	3,562	0.69%	3,311	0.7070	1.840	0.73%	526	0.03 %	1,515	0.34%	488	0.11%
3,191	0.62%	3,165	0.61%	3,223	0.64%	3,168	0.63%	2,963	0.59%	3,343	0.74%	2,457	0.55%
1,422	0.28%	1,520	0.29%	1,507	0.30%	1,055	0.21%	717	0.14%	0,0.0	0.00%	910	0.20%
2,285	0.45%	2,095	0.41%	2,190	0.43%	1,978	0.39%	1,875	0.37%	1,929	0.43%	1,811	0.40%
1,754	0.34%	1,730	0.33%	1,520	0.30%	1,402	0.28%	4,900	0.97%	1,649	0.37%	1,479	0.33%
.,	0.0 . 70	1,474	0.29%	1,461	0.29%	.,	0.2070	.,000	0.0.70	.,0.0	0.01.70	., 0	0.0070
1,047	0.20%	.,	0.2070	1,101	0.2070								
1,011	0.2070	794	0.15%			6,667	1.41%	1,377	0.29%	1,012	0.21%		
		1,030	0.20%	1,234	0.24%	1,084	0.22%	1,280	0.25%	1,482	0.33%	1,224	0.27%
		1,271	0.25%	1,201	0.2170	930	0.18%	1,026	0.20%	1,212	0.27%	.,	0.21 70
1,080	0.21%	1,879	0.36%	2,347	0.47%	2,753	0.55%	2,084	0.41%	3,231	0.72%	2,717	0.61%
1,000	0.2170	790	0.15%	852	0.18%	2,700	0.0070	2,00	0.1170	0,201	0.1270	_,	0.0170
		772	0.15%	002	0.1070	448	0.09%	586	0.12%		0.00%	871	0.19%
8,900	1.73%	1,970	0.13%	9,029	1.79%	359	0.03%	3,880	0.77%	2,993	0.67%	2,939	0.65%
0,000	1.1.070	1,070	0.0070	0,020	1.1.070	000	0.01 /0	0,000	070	_,000	0.01 /0	_,000	0.0070
35,394	6.90%	31,937	6.18%	21,160	4.19%	27,074	5.37%	37,161	7.36%	37,021	8.25%	27,538	6.13%





ROBINSON, FARMER, COX ASSOCIATES, PLLC

Certified Public Accountants

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, 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements and have issued our report thereon dated November 11, 2019.

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.

Charlottesville, Virginia November 11, 2019

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