

Appomattox
River
Water
Authority



Financial Report
Year Ended June 30, 2017

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

(A Public Body chartered November 21, 1960
Under the Water and Waste Authorities Act of 1950 of the Commonwealth of Virginia)

- Board of Directors -

Percy C. Ashcraft, Chairman
Prince George County

Dr. Joseph P. Casey, Vice Chairman
Chesterfield County

W. Kevin Massengill, Secretary-Treasurer
Dinwiddie County

William E. Henley, Member
City of Colonial Heights

Tom Tyrrell, Member
City of Petersburg

- Officials -

Dr. Robert C. Wichser, P.E., BCEE, Executive Director

James C. Gordon, Assistant Executive Director

USBank, Trustee

McGuire Woods, Counsel

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Independent Auditors' Report

**To the Honorable Board of Directors
Appomattox River Water Authority
S. Chesterfield, Virginia**

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of Appomattox River Water Authority, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Appomattox River Water 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 audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Those standards 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 Appomattox River Water Authority, as of June 30, 2017, and the changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and schedules related to pension and OPEB funding on pages 3-7 and 41-44 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.

Report on Summarized Comparative Information

We have previously audited Appomattox River Water Authority's 2016 financial statements, and expressed an unmodified opinion on those audited financial statements in our report dated September 26, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2016, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 25, 2017, on our consideration of Appomattox River Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Appomattox River Water Authority's internal control over financial reporting and compliance.

Robinson, Farmer, Cox Associates

Charlottesville, Virginia
September 25, 2017

To the Honorable Board of Directors Appomattox River Water Authority S. Chesterfield, Virginia

As management of Appomattox River Water Authority (the Authority), we offer readers of our financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ended June 30, 2017.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. Since the Authority is engaged only in business-type activities, its basic financial statements are comprised of only two components: 1) enterprise fund financial statements and 2) notes to the financial statements. This report also contains required supplementary information in addition to the basic financial statements themselves.

Enterprise fund financial statements. The enterprise fund financial statements are designed to provide readers with a broad overview of the Authority's finances, in a manner similar to a private-sector business.

The statement of net position presents information on the Authority's assets, deferred outflows, deferred inflows and liabilities. Equity of the Authority is reported as net position. Net position is the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, reduced by accumulated depreciation and by any outstanding debt, deferred outflows of resources and deferred inflows of resources related to the acquisition, construction or improvement of those assets. Restricted net position represents restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

The statement of revenues, expenses and changes in net position presents information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods, (e.g. earned but unused vacation leave).

Refer to the table of contents for the basic enterprise fund financial statements.

Notes to financial statements. The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. Refer to the table of contents for the notes to the financial statements. Required supplementary information presents the Authority's progress in funding its obligation to provide pension benefits to its employees.

Financial Highlights

- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources at the close of the most recent fiscal year by \$43,337,631 (net position). Of this amount \$5,973,566 is reported as unrestricted net position.
- The Authority's total net position increased by \$416,506.
- The Authority's total long-term debt (excluding premium amortization, compensated absences, OPEB obligation and net pension liability) decreased by \$1,031,300 during the current fiscal year. Details of the change in long-term debt can be found under the heading "*Capital Asset and Debt Administration*".

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of an Authority's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$43,337,631 at the close of the most recent fiscal year.

By far the largest portion of the Authority's net position (74 percent) reflects its net investment in capital assets. The Authority uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although the Authority's net investment in capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

The following table provides a summary of the statement of net position.

	Net Position		
	2017	2016	2015
Current and other assets	\$ 11,734,559	\$ 10,978,989	\$ 9,979,134
Capital assets	43,025,324	44,440,581	47,552,608
Total assets	<u>\$ 54,759,883</u>	<u>\$ 55,419,570</u>	<u>\$ 57,531,742</u>
Deferred charge on refunding	\$ 659,877	\$ 704,048	\$ 748,219
Differences between expected and actual experience	130,141	205,366	-
Net difference of actual and expected pension asset earnings	136,182		
Post measurement date employer pension contributions	77,470	90,504	87,660
Total deferred outflows	<u>\$ 1,003,670</u>	<u>\$ 999,918</u>	<u>\$ 835,879</u>
Long-term liabilities	\$ 12,234,833	\$ 13,089,975	\$ 14,060,681
Other liabilities	170,267	277,324	453,722
Total liabilities	<u>\$ 12,405,100</u>	<u>\$ 13,367,299</u>	<u>\$ 14,514,403</u>
Net difference of actual and expected pension	\$ 20,822	\$ -	\$ -
Differences between expected and actual experience asset earnings	-	131,064	300,718
Total deferred inflows	<u>\$ 20,822</u>	<u>\$ 131,064</u>	<u>\$ 300,718</u>
Net investment in capital assets	\$ 32,010,323	\$ 33,415,596	\$ 35,997,130
Restricted	5,353,742	5,400,076	5,261,905
Unrestricted	5,973,566	4,105,453	2,293,465
Total net position	<u><u>\$ 43,337,631</u></u>	<u><u>\$ 42,921,125</u></u>	<u><u>\$ 43,552,500</u></u>

Financial Analysis (continued)

At the end of the current fiscal year, the Authority is able to report positive balances in all categories of net position.

	Change in Net Position		
	2017	2016	2015
Revenues:			
Operating revenues	\$ 10,109,705	\$ 9,394,796	\$ 8,612,284
Investment income	60,957	4,982	604
Total revenues	<u>\$ 10,170,662</u>	<u>\$ 9,399,778</u>	<u>\$ 8,612,888</u>
Expenses:			
Operating expenses (excluding depreciation)	\$ 6,708,801	\$ 6,128,700	\$ 6,190,086
Depreciation expense	2,563,910	2,544,396	2,514,057
Abandoned project costs	-	836,793	-
Interest expense	481,445	521,264	560,530
Total expenses	<u>\$ 9,754,156</u>	<u>\$ 10,031,153</u>	<u>\$ 9,264,673</u>
Increase (decrease) in net position	\$ 416,506	\$ (631,375)	\$ (651,785)
Net position-July 1	<u>42,921,125</u>	<u>43,552,500</u>	<u>44,204,285</u>
Net position-June 30	<u>\$ 43,337,631</u>	<u>\$ 42,921,125</u>	<u>\$ 43,552,500</u>

The Authority's net position increased by \$416,506 during the current year. Operating revenues increased by \$714,909, reflecting an increase in consumption and increase in the base rate, while operating expenses (excluding depreciation) increased \$580,101 over fiscal year 2016 totals. Key elements of these changes are explained in greater detail under the Review of Operations section.

Capital Asset and Debt Administration

Capital Assets - The Authority's investment in capital assets as of June 30, 2017 amounts to \$43,025,324 (net of accumulated depreciation). Investment in capital assets decreased by approximately 3.18% during the year. Below is a comparison of the items that make up capital assets as of June 30, 2017 with that of June 30, 2016 and 2015.

	2017	2016	2015
Land	\$ 1,090,685	\$ 1,044,167	\$ 1,044,167
Water systems	85,248,334	84,179,582	83,673,872
Equipment	1,094,840	1,055,242	975,510
Hydro costs incurred	34,873	34,873	34,873
Accumulated depreciation	(44,502,133)	(41,938,223)	(39,410,881)
Construction in progress	<u>58,725</u>	<u>64,940</u>	<u>1,235,067</u>
Total capital assets	<u>\$ 43,025,324</u>	<u>\$ 44,440,581</u>	<u>\$ 47,552,608</u>

More detailed information on the Authority's capital assets is presented in Note 3 of the notes to the financial statements.

Capital Asset and Debt Administration (continued)

Long-Term Debt - At the end of the current fiscal year, the Authority had \$10,920,000 in bonds outstanding versus \$11,951,300 last year, a decrease of 8.6%. The decrease represents payment of principal in accordance with the bond documents.

Other long-term obligations of the Authority include accrued vacation pay. More detailed information on the Authority's long-term obligations is presented in Notes 4, 6 and 8 of the notes to the financial statements.

Review of Operations

Operating Revenues. Operating Revenues increased (\$770,884) from 2016 or 7.6%, generally can be attributed to an increase in rates due to enhanced funding the Authority's reserves and funding future projects.

Operating Expenses. Operating Expenses (excluding depreciation) increased (\$580,101) from 2016 by 9.5% mainly due to the addition of the Employee Assistance Program cost, the OPEB Health Insurance adjustment, Facility VPDES Permit Fee, increased expenses for leasing and renting of equipment, implementation of a new IT Department, and the cost of more frequent carbon replacement on the water filters, filling open positions in operations/maintenance and the cost of retiree payouts.

Long-Term Issues. The Federal Safe Drinking Water Act and regulations that derive from this Act mandate the water quality that the Authority must meet for its customers. The regulations require the Authority to constantly improve operations and treatment techniques. The Authority has met the federal and state requirements for drinking water quality in the past and will continue to do so in the future.

Authority Highlights

Water Quality

- The Authority complied with all Virginia Department of Health and U.S. EPA requirements under the Safe Drinking Water Act. The Authority is fully compliant with the EPA's Safe Drinking Water Act, providing for the high quality water supplied to the five Authority members.
- The Authority continued to meet the criteria for the AWWA Director's Award from the Partnership for Safe Water and is one of only two water purveyors to meet this strict criterion for 15+ years in Virginia. The Authority has received an award from the Virginia Department of Health for excellence in Operations.

Water Supply Plan

- On November 1, 2013 the Authority received from the Virginia Department of Environmental Quality and the U.S. Army Corps of Engineers a new Virginia Water Protection Permit. This permit has an expiration date of October 31, 2028 and has provided for the sound scientific basis towards effective water resource management of the Chesdin Reservoir.

Water Supply Alternatives

- The Authority continues to work towards development of a new raw water supply alternative and has held preliminary discussions towards options which could allow the Authority and its policy makers to eventually consider moving forward to address future raw water supply needs.

Authority Highlights (continued)

A flow summary for the last three years is shown below:

	<u>2016/2017</u>	<u>2015/2016</u>	<u>2014/2015</u>
Total annual flow (billion gallons)	10.250	9.921	10.814
Average daily flow (mgd)	28.08	27.11	29.63

Consumption by the localities continues to change over time with annual variation generally based on the weather, with dry years being higher than wet years. The 2016/2017 June, July summer high demand period was close to normal towards wet weather with August being much drier than normal. During the 2016/2017 fiscal year, the Authority did not issue any formal permit related water conservation restrictions.

Projects/Studies Completed in 2016/2017

The Authority has provided for the forecasting and managing intermediate and long-range capital projects with a five-year Capital Program Plan updated annually. Additionally, an in-depth annual maintenance audit is conducted by the Authority's Trust Engineer. The following projects or studies have been completed in 2016/2017:

1. Completion of the Annually Required Facility Maintenance Inspection by our Trust Engineer;
2. Completion of construction on the Facility Lime Feed Upgrade Project;
3. Continuation of efforts on the Development of an Updated Long-Term Water Service Agreement;
4. Completed an upgrade replacement project related to the facility's vintage SCADA equipment;
5. Completed installation of a new drinking water corrosion control holding tank;
6. Completed the new warehouse's racks & shelving and continued to implement operational efficiencies related to the warehouse;
7. Replaced an obsolete boiler with a state-of-the-art mini boiler;
8. Completed safety related upgrades to effluent outfall 005 and the flocculation basins;
9. Completed numerous pump repairs, electrical inspections and electrical control unit replacements;
10. Complete numerous facility concrete repairs;
11. Completed an application to VA-DEQ for the facility's re-issued 5-year VPDES discharge permit;
12. Entered design phase on a major "In-Plant" upgrade project;
13. Continued to research and define regulatory and cost impacts related to a potential dam raise project.

Economic Conditions

The Authority continues to operate under sound effective management with total net position increasing during fiscal year 2017. Overall, finances for the Authority for fiscal year 2016-2017 as viewed by management, including the Board of Directors, are considered sound.

Contacting the Authority

Questions concerning this financial report or requests for additional information should be directed to the Executive Director, Appomattox River Water Authority, 21300 Chesdin Road, S. Chesterfield, Virginia 23803, telephone (804) 590-1145.

- Financial Statements -

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Statement of Net Position

June 30, 2017

(With Comparative Totals for the Prior Year)

	<u>2017</u>	<u>2016</u>
Assets		
Current Assets		
Cash and cash equivalents	\$ 3,196,070	\$ 1,186,321
Accounts receivable - water service	2,831,832	2,711,216
Inventory	131,470	358,541
Other receivables	11,901	38,574
Prepaid expenses	84,761	85,721
Total Current Assets	<u>\$ 6,256,034</u>	<u>\$ 4,380,373</u>
Noncurrent Assets		
Restricted Assets:		
Cash and cash equivalents	\$ 5,474,116	\$ 6,597,760
Accrued interest receivable	4,409	856
Total Restricted Assets	<u>\$ 5,478,525</u>	<u>\$ 6,598,616</u>
Capital Assets:		
Land and land rights	\$ 1,090,685	\$ 1,044,167
Water system	85,248,334	84,179,582
Equipment	1,094,840	1,055,242
Hydro costs incurred	34,873	34,873
Accumulated depreciation	<u>(44,502,133)</u>	<u>(41,938,223)</u>
Sub-total net capital assets	\$ 42,966,599	\$ 44,375,641
Construction in progress	58,725	64,940
Total net capital assets	<u>\$ 43,025,324</u>	<u>\$ 44,440,581</u>
Total Noncurrent Assets	<u>\$ 48,503,849</u>	<u>\$ 51,039,197</u>
Total Assets	<u>\$ 54,759,883</u>	<u>\$ 55,419,570</u>
Deferred Outflows of Resources		
Deferred charge on refunding	\$ 659,877	\$ 704,048
Differences between expected and actual experience	130,141	205,366
Net difference between projected and actual earnings on pension plan investments	136,182	-
Post measurement date employer pension contributions	77,470	90,504
Total Deferred Outflows of Resources	<u>\$ 1,003,670</u>	<u>\$ 999,918</u>

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Statement of Net Position

June 30, 2017 (continued)

(With Comparative Totals for the Prior Year)

	<u>2017</u>	<u>2016</u>
Liabilities		
Current Liabilities Payable from Current Assets:		
Accounts payable	\$ 49,893	\$ 110,084
Total Current Liabilities Payable from Current Assets	<u>\$ 49,893</u>	<u>\$ 110,084</u>
Current Liabilities Payable from Restricted Assets:		
Accounts payable	\$ -	\$ 35,211
Retainage payable	-	1,721
Accrued interest payable	120,374	130,308
Bonds payable - current portion	<u>598,000</u>	<u>1,031,300</u>
Total Current Liabilities Payable from Restricted Assets	<u>\$ 718,374</u>	<u>\$ 1,198,540</u>
Total Current Liabilities	<u>\$ 768,267</u>	<u>\$ 1,308,624</u>
Noncurrent Liabilities		
Bonds payable - net of current portion	\$ 11,076,878	\$ 11,729,033
Net OPEB obligation	63,300	65,000
Net pension liability	326,043	107,723
Compensated absences	<u>170,612</u>	<u>156,919</u>
Total Noncurrent Liabilities	<u>\$ 11,636,833</u>	<u>\$ 12,058,675</u>
Total Liabilities	<u>\$ 12,405,100</u>	<u>\$ 13,367,299</u>
Deferred Inflow of Resources		
Net difference between projected and actual earnings on pension plan investments	\$ -	\$ 131,064
Differences between expected and actual experience	<u>20,822</u>	<u>-</u>
Total Deferred Inflows of Resources	<u>\$ 20,822</u>	<u>\$ 131,064</u>
Net Position		
Net investment in capital assets	\$ 32,010,323	\$ 33,415,596
Restricted for debt service and bond covenants	5,353,742	5,400,076
Unrestricted	<u>5,973,566</u>	<u>4,105,453</u>
Total Net Position	<u>\$ 43,337,631</u>	<u>\$ 42,921,125</u>

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

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Statement of Revenues, Expenses and Changes in Net Position

Year Ended June 30, 2017

(With Comparative Totals for the Prior Year)

	<u>2017</u>	<u>2016</u>
Operating Revenues		
Water service	\$ 10,060,388	\$ 9,302,723
Other	49,317	92,073
Total Operating Revenues	<u>\$ 10,109,705</u>	<u>\$ 9,394,796</u>
Operating Expenses		
Operating and maintenance		
Salaries	\$ 1,427,214	\$ 1,393,687
Employee benefits	619,589	542,953
Contractual services	1,043,633	1,013,729
Materials, supplies and other costs	2,620,851	2,259,382
Other charges	997,514	918,949
Depreciation	<u>2,563,910</u>	<u>2,544,396</u>
Total Operating Expenses	<u>\$ 9,272,711</u>	<u>\$ 8,673,096</u>
Net Operating Income (Loss)	<u>\$ 836,994</u>	<u>\$ 721,700</u>
Nonoperating Revenues (Expenses)		
Income from investments	\$ 60,957	\$ 4,982
Abandoned project costs	-	(836,793)
Interest on bonds	<u>(481,445)</u>	<u>(521,264)</u>
Total Nonoperating Revenues (Expenses)	<u>\$ (420,488)</u>	<u>\$ (1,353,075)</u>
Change in net position	\$ 416,506	\$ (631,375)
Net position, beginning of year	<u>42,921,125</u>	<u>43,552,500</u>
Net position, end of year	<u><u>\$ 43,337,631</u></u>	<u><u>\$ 42,921,125</u></u>

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

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Statement of Cash Flows

Year Ended June 30, 2017

(With Comparative Totals for the Prior Year)

	<u>2017</u>	<u>2016</u>
Cash flows from operating activities:		
Receipts from customers and users	\$ 10,015,762	\$ 9,178,497
Payments to suppliers and vendors	(4,496,675)	(4,466,490)
Payments to and on behalf of employees	<u>(1,974,655)</u>	<u>(2,172,764)</u>
Net cash provided by (used for) operating activities	\$ <u>3,544,432</u>	\$ <u>2,539,243</u>
Cash flows from capital and related financing activities:		
Acquisition of utility plant in service	\$ (1,183,067)	\$ (326,669)
Principal paid on bonds	(1,031,300)	(1,005,600)
Interest paid on bonds	<u>(501,364)</u>	<u>(541,263)</u>
Net cash provided by (used for) capital and related financing activities	\$ <u>(2,715,731)</u>	\$ <u>(1,873,532)</u>
Cash flows from investing activities:		
Interest received	\$ <u>57,404</u>	\$ <u>4,166</u>
Net cash provided by (used for) investing activities	\$ <u>57,404</u>	\$ <u>4,166</u>
Net increase (decrease) in cash and cash equivalents	\$ <u>886,105</u>	\$ <u>669,877</u>
Cash and cash equivalents at beginning of year (including \$6,597,760 and \$6,869,935 in restricted accounts)	\$ <u>7,784,081</u>	\$ <u>7,114,204</u>
Cash and cash equivalents at end of year (including \$5,474,116 and \$6,597,760 in restricted accounts)	\$ <u><u>8,670,186</u></u>	\$ <u><u>7,784,081</u></u>
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income (loss)	\$ 836,994	\$ 721,700
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation	2,563,910	2,544,396
Changes in operating assets and liabilities:		
(Increase) decrease in receivables	(93,943)	(413,231)
(Increase) decrease in inventories	227,071	(79,856)
(Increase) decrease in prepaid expenses	960	(85,721)
Increase (decrease) in operating accounts payable	(62,708)	(108,853)
Increase (decrease) in payroll liabilities	-	(22)
Increase (decrease) in compensated absences	13,693	(28,175)
(Increase) decrease in net pension asset	-	249,646
(Increase) decrease in net pension liability	218,320	107,723
(Increase) decrease in pension deferred outflow of resources	(47,923)	(208,210)
Increase (decrease) in pension deferred inflow of resources	(110,242)	(169,654)
Increase (decrease) in OPEB obligation	<u>(1,700)</u>	<u>9,500</u>
Net cash provided by (used for) operating activities	\$ <u><u>3,544,432</u></u>	\$ <u><u>2,539,243</u></u>

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017

NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Nature of Entity:

Appomattox River Water Authority is a public body organized under the provisions of the Virginia Water and Waste Authorities Act, by the governing bodies of the City of Petersburg, Virginia, the City of Colonial Heights, Virginia, and the Counties of Chesterfield, Dinwiddie, and Prince George, Virginia. The Authority was incorporated on November 21, 1960.

The purpose of the Authority is to provide a supply of filtered water for the members of the Authority. The Authority is authorized to issue bonds payable solely from revenues to construct a water system, including an impounding reservoir, dam, filter plant, pumping station, transmission mains and connections, and access roads and parking areas, and to acquire sufficient land to provide a cleared area for the reservoir.

The Authority's governing body is comprised of one member appointed by each of the five participating jurisdictions. These governmental entities have an ongoing financial responsibility to the Authority because its continued existence depends on continued funding by the participants. The Authority is perpetual and no participating government has access to its resources or surpluses, nor is any participant liable for the Authority's debts or deficits. The Authority also has the ability to finance its capital projects through user charges or the sale of revenue bonds.

Based on the above representations, Appomattox River Water Authority has been determined to be a joint venture of the five participating jurisdictions. The Authority is not a component unit of any of the participating governments. There are no component units to be included in the Authority's financial statements.

Summary of Significant Accounting Policies:

A. Basis of Accounting:

Appomattox River Water Authority operates as an enterprise fund, uses the flow of economic resources measurement focus 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 follows Governmental Accounting Standards Board (GASB) pronouncements.

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. 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.

B. Basic Financial Statements:

Governmental Accounting Standards Board (GASB) Statement No. 34, *Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments* requires the financial statements to include a Management's Discussion and Analysis (MD&A) section providing an analysis of the Authority's overall financial position and results of operations.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)

B. Basic Financial Statements: (continued)

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 (Asset) Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to Required Supplementary Information
- Schedule of OPEB Funding Progress

C. Cash and Cash Equivalents:

For purposes of the statement of cash flows, the Authority considers all highly liquid investments (including restricted assets) with an original maturity of three months or less when purchased to be cash equivalents.

D. Accounts Receivable:

Accounts receivable is recorded at face value. Since substantially all of the Authority’s receivables are from the participating jurisdictions, no allowance for uncollectible accounts is deemed necessary.

E. Capital Assets:

Capital assets, which include property, plant, equipment, and infrastructure assets are reported in the financial statements. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$5,000 (amount not rounded) 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 acquisition value at the date of donation.

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 and improvements 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 during the current or previous fiscal year.

Property, plant, equipment and infrastructure is depreciated using the straight-line method over the following estimated useful lives:

<u>Assets</u>	<u>Years</u>
Structures, lines and accessories	50
Equipment	3 to 10

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)

F. 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 reported at fair value.

G. Premiums/Discount on Bonds Held for Investment:

The premium/discounts paid on bonds held for investment are being amortized over the life of investment using the effective interest method.

H. Budgets:

The Authority adopts annual budgets for water service revenues and Operating Fund expenditures. The budgets are prepared on the basis of expected cash receipts and disbursements rather than on the accrual basis.

I. Unamortized Deferred Charge on Refunding:

The deferred charge on refunding, resulting from the refunding of the Series 2002C Revenue Bonds is being amortized using the bonds outstanding method over the life of the Series 2010 Revenue Refunding Bonds, which is not materially different from the effective interest method. The current year amortization is included in interest expense.

J. 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.

K. 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.

L. Deferred Outflows/Inflows of Resources:

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. There are multiple items that qualify for reporting in this category. One item is the deferred charge on refunding reported in the statement of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The other items are related to the recognition of the net pension liability including contributions to the pension plan made during the current year and subsequent to the net pension asset measurement date, which will be recognized as an increase of the net pension asset next fiscal year and net differences between expected and actual experience and differences between projected and actual earnings. For more detailed information on these items, reference the pension note.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 1 - NATURE OF ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (continued)

L. Deferred Outflows/Inflows of Resources: (continued)

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 reports items related to the net pension liability including net difference between projected and actual earnings on pension plan assets and differences between expected and actual experience.

M. Net Position Flow Assumption:

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

N. Restricted Assets:

Certain proceeds of the Authority's revenue bonds, as well as certain resources set aside for their repayment, are classified as restricted assets on the balance sheet because they are maintained in separate bank accounts and their use is limited by applicable bond covenants.

O. Inventories:

Inventories are reported at cost, and cost is determined on the first-in, first-out basis.

P. Prepaid Expenses:

Certain payments to vendors represent costs applicable to future accounting periods and are recorded as prepaid items in both the government-wide and fund financial statements. The cost of prepaid items is recorded as expenditures/expenses when consumed rather than when purchased.

Q. 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.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 2 - 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 the 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 the amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

Investments:

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

The Authority has not implemented a formal investment policy.

Credit Risk of Debt Securities:

The Authority's rated debt investments as of June 30, 2017 were rated by Standard & Poor's and the ratings are presented below using the Standard & Poor's rating scale.

<u>Authority's Rated Debt Investments' Values</u>	
<u>Rated Debt Investments</u>	<u>Fair Quality Ratings</u>
	<u>AAAm</u>
Money market - U.S. Treasury Securities	\$ <u>7,574,175</u>
Total	\$ <u>7,574,175</u>

Interest Rate Risk:

	<u>Investment Maturities (in years)</u>	
	<u>Fair Value</u>	<u>Less Than 1 Year</u>
Money market - U.S. Treasury Securities	\$ <u>7,574,175</u>	\$ <u>7,574,175</u>
	\$ <u>7,574,175</u>	\$ <u>7,574,175</u>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 3 - CAPITAL ASSETS:

A summary of the Authority's capital assets and the changes therein for the year ended June 30, 2017, follows:

	<u>Beginning Balance</u>	<u>Increases</u>	<u>Decreases</u>	<u>Ending Balance</u>
Capital assets not being depreciated:				
Land and land rights	\$ 1,044,167	\$ 46,518	\$ -	\$ 1,090,685
Construction in progress	64,940	988,711	994,926	58,725
Total capital assets not being depreciated	<u>\$ 1,109,107</u>	<u>\$ 1,035,229</u>	<u>\$ 994,926</u>	<u>\$ 1,149,410</u>
Other capital assets, being depreciated:				
Water system	\$ 84,179,582	\$ 1,068,752	\$ -	\$ 85,248,334
Equipment	1,055,242	39,598	-	1,094,840
Hydro costs incurred	34,873	-	-	34,873
Total other capital assets being depreciated	<u>\$ 85,269,697</u>	<u>\$ 1,108,350</u>	<u>\$ -</u>	<u>\$ 86,378,047</u>
Accumulated depreciation:				
Water system	\$ (41,244,087)	\$ (2,488,905)	\$ -	\$ (43,732,992)
Equipment	(662,750)	(73,610)	-	(736,360)
Hydro costs incurred	(31,386)	(1,395)	-	(32,781)
Total accumulated depreciation	<u>\$ (41,938,223)</u>	<u>\$ (2,563,910)</u>	<u>\$ -</u>	<u>\$ (44,502,133)</u>
Other capital assets being depreciated, net	<u>\$ 43,331,474</u>	<u>\$ (1,455,560)</u>	<u>\$ -</u>	<u>\$ 41,875,914</u>
Capital assets, net	<u>\$ 44,440,581</u>	<u>\$ (420,331)</u>	<u>\$ 994,926</u>	<u>\$ 43,025,324</u>

Depreciation expense for the fiscal year totaled \$2,563,910.

NOTE 4 - LONG-TERM OBLIGATIONS:

A. Changes in Long-Term Obligations:

The following is a summary of long-term obligations transactions for the year ended June 30, 2017:

	<u>Balance July 1, 2016</u>	<u>Issuances</u>	<u>Retirements</u>	<u>Balance June 30, 2017</u>	<u>Due Within One Year</u>
Revenue bonds	\$ 11,951,300	\$ -	\$ (1,031,300)	\$ 10,920,000	\$ 598,000
Add (less) amounts:					
For issuance premiums	809,033	-	(54,155)	754,878	-
Total revenue bonds	<u>\$ 12,760,333</u>	<u>\$ -</u>	<u>\$ (1,085,455)</u>	<u>\$ 11,674,878</u>	<u>\$ 598,000</u>
Net OPEB obligation	<u>\$ 65,000</u>	<u>\$ 10,500</u>	<u>\$ (12,200)</u>	<u>\$ 63,300</u>	<u>\$ -</u>
Compensated absences	<u>\$ 156,919</u>	<u>\$ 13,693</u>	<u>\$ -</u>	<u>\$ 170,612</u>	<u>\$ -</u>
Net pension liability	<u>\$ 107,723</u>	<u>\$ 499,381</u>	<u>\$ (281,061)</u>	<u>\$ 326,043</u>	<u>\$ -</u>
Totals	<u>\$ 13,089,975</u>	<u>\$ 523,574</u>	<u>\$ (1,378,716)</u>	<u>\$ 12,234,833</u>	<u>\$ 598,000</u>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 4 - LONG-TERM OBLIGATIONS: (continued)

B. Annual Amortization of Long-Term Obligations:

The annual requirements to amortize all long-term obligations outstanding at June 30, 2017 are as follows:

<u>Year Ended June 30,</u>	<u>Revenue and Revenue Refunding Bonds</u>	
	<u>Principal</u>	<u>Interest</u>
2018	\$ 598,000	\$ 468,426
2019	620,000	441,797
2020	647,000	414,059
2021	679,000	384,955
2022	707,000	354,473
2023	735,000	322,721
2024	768,000	290,963
2025	801,000	259,080
2026	835,000	225,098
2027	878,000	188,796
2028	907,000	150,903
2029	640,000	116,300
2030	670,000	84,895
2031	700,000	52,035
2032	<u>735,000</u>	<u>17,617</u>
Total	\$ <u>10,920,000</u>	\$ <u>3,772,118</u>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 4 - LONG-TERM OBLIGATIONS: (continued)

C. Details of Long-Term Obligations:

	<u>Total Amount</u>	<u>Amount Due Within One Year</u>
On November 23, 2010, the Authority issued \$9,750,000 of Water Revenue Refunding Bonds, Series 2010 to provide funds to defease \$9,910,000 of Water Revenue Refunding Bonds, Series 2002. The bonds were issued at a premium of \$1,095,893. The Authority advance refunded the 2002 Series bonds to reduce its total debt service payments by \$664,976 and to obtain an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$346,778. The defeased bonds were called and retired on May 1, 2012. Bond issue costs in the amount of \$152,595 are associated with these bonds. The bonds bear interest, payable semiannually, at rates of between 3.362% - 5.1%. Principal is payable annually on October 1, 2012 through 2031.	\$ 8,105,000	380,000
On May 30, 2012, the Authority issued \$3,623,000 of Water Revenue Bonds bearing interest at 3.10% payable semiannually through October 2027. Principal payments commence October	<u>2,815,000</u>	<u>218,000</u>
Total Revenue Bonds	\$ <u><u>10,920,000</u></u>	\$ <u><u>598,000</u></u>

Pledge of Revenues and Funds:

The Authority pledges and assigns to the trustee all revenues derived from the ownership or operation of the System and all monies in the Construction Account, the Revenue Account, the Operating Account, the Bond Account, the Debt Service Reserve Accounts and the Replacement Account for the payment of the principal of interest on the bonds, subject only to the right of the Authority to make application thereof to other purposes as provided in the Trust Agreement.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN:

Plan Description

All full-time, salaried permanent employees of the Authority are automatically covered by VRS Retirement Plan upon employment. This agent multi-employer plan is 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.

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

RETIREMENT PLAN PROVISIONS		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>About Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member’s age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013.</p>	<p>About Plan 2 Plan 2 is a defined benefit plan. The retirement benefit is based on a member’s age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.</p>	<p>About the Hybrid Retirement Plan The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window. (see “Eligible Members”)</p> <ul style="list-style-type: none"> • The defined benefit is based on a member’s age, creditable service and average final compensation at retirement using a formula. • The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>About Plan 1 (Cont.)</p>	<p>About Plan 2 (Cont.)</p>	<p>About the Hybrid Retirement Plan (Cont.)</p> <ul style="list-style-type: none"> • In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.
<p>Eligible Members Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013.</p> <p>Hybrid Opt-In Election VRS non-hazardous duty covered Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014.</p> <p>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p>	<p>Eligible Members Employees are in Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.</p> <p>Hybrid Opt-In Election Eligible Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014.</p> <p>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p>	<p>Eligible Members Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes:</p> <ul style="list-style-type: none"> • Political subdivision employees* • Members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1-April 30, 2014; the plan's effective date for opt-in members was July 1, 2014. <p>*Non-Eligible Members Some employees are not eligible to participate in the Hybrid Retirement Plan. They include:</p> <ul style="list-style-type: none"> • Political subdivision employees who are covered by enhanced benefits for hazardous duty employees.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Hybrid Opt-In Election (Cont.) Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.</p>	<p>Hybrid Opt-In Election (Cont.) Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.</p>	<p>*Non-Eligible Members (Cont.) Those employees eligible for an optional retirement plan (ORP) must elect the ORP plan or the Hybrid Retirement Plan. If these members have prior service under Plan 1 or Plan 2, they are not eligible to elect the Hybrid Retirement Plan and must select Plan 1 or Plan 2 (as applicable) or ORP.</p>
<p>Retirement Contributions Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Some political subdivisions elected to phase in the required 5% member contribution but all employees are paying the full 5% as of July 1, 2016. Member contributions are tax-deferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.</p>	<p>Retirement Contributions Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Some political subdivisions elected to phase in the required 5% member contribution but all employees are paying the full 5% as of July 1, 2016.</p>	<p>Retirement Contributions A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Creditable Service Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.</p>	<p>Creditable Service Same as Plan 1.</p>	<p>Creditable Service <u>Defined Benefit Component:</u> Under the defined benefit component of the plan, creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.</p> <p><u>Defined Contributions Component:</u> Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Vesting Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund.</p> <p>Members are always 100% vested in the contributions that they make.</p>	<p>Vesting Same as Plan 1.</p>	<p>Vesting <u>Defined Benefit Component:</u> Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of creditable service. Plan 1 or Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.</p> <p><u>Defined Contributions Component:</u> Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan.</p> <p>Members are always 100% vested in the contributions that they make.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Vesting (Cont.)</p>	<p>Vesting (Cont.)</p>	<p>Vesting (Cont.) <u>Defined Contributions Component: (Cont.)</u> Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service.</p> <ul style="list-style-type: none"> • After two years, a member is 50% vested and may withdraw 50% of employer contributions. • After three years, a member is 75% vested and may withdraw 75% of employer contributions. • After four or more years, a member is 100% vested and may withdraw 100% of employer contributions. <p>Distribution is not required by law until age 70½.</p>
<p>Calculating the Benefit The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. It is one of the benefit payout options available to a member at retirement.</p>	<p>Calculating the Benefit See definition under Plan 1.</p>	<p>Calculating the Benefit <u>Defined Benefit Component:</u> See definition under Plan 1.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Calculating the Benefit (Cont.) An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.</p>	<p>Calculating the Benefit (Cont.)</p>	<p>Calculating the Benefit (Cont.) <u>Defined Contribution Component:</u> The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.</p>
<p>Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.</p>	<p>Average Final Compensation A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.</p>	<p>Average Final Compensation Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.</p>
<p>Service Retirement Multiplier VRS: The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.70%.</p> <p>Sheriffs and regional jail superintendents: The retirement multiplier for sheriffs and regional jail superintendents is 1.85%.</p> <p>Political subdivision hazardous duty employees: The retirement multiplier of eligible political subdivision hazardous duty employees other than sheriffs and regional jail superintendents is 1.70% or 1.85% as elected by the employer.</p>	<p>Service Retirement Multiplier VRS: Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For non-hazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013.</p> <p>Sheriffs and regional jail superintendents: Same as Plan 1.</p> <p>Political subdivision hazardous duty employees: Same as Plan 1.</p>	<p>Service Retirement Multiplier <u>Defined Benefit Component:</u> VRS: The retirement multiplier for the defined benefit component is 1.00%.</p> <p>For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.</p> <p>Sheriffs and regional jail superintendents: Not applicable.</p> <p>Political subdivision hazardous duty employees: Not applicable.</p> <p><u>Defined Contribution Component:</u> Not applicable.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Earliest Reduced Retirement Eligibility (Cont.)</p> <p>Political subdivisions hazardous duty employees: 50 with at least five years of creditable service.</p>	<p>Earliest Reduced Retirement Eligibility (Cont.)</p> <p>Political subdivisions hazardous duty employees: Same as Plan 1.</p>	<p>Earliest Reduced Retirement Eligibility (Cont.)</p> <p>Political subdivisions hazardous duty employees: Not applicable.</p> <p><u>Defined Contribution Component:</u> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p>Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%.</p> <p><u>Eligibility:</u> For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date.</p> <p>For members who retire with a reduced benefit and who have less than 20 years of creditable service, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date.</p>	<p>Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%.</p> <p><u>Eligibility:</u> Same as Plan 1.</p>	<p>Cost-of-Living Adjustment (COLA) in Retirement <u>Defined Benefit Component:</u> Same as Plan 2.</p> <p><u>Defined Contribution Component:</u> Not applicable.</p> <p><u>Eligibility:</u> Same as Plan 1 and Plan 2.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</p> <p><u>Exceptions to COLA Effective Dates:</u> The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:</p> <ul style="list-style-type: none"> • The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013. • The member retires on disability. • The member retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP). • The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program. • The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins. 	<p>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</p> <p><u>Exceptions to COLA Effective Dates:</u> Same as Plan 1.</p>	<p>Cost-of-Living Adjustment (COLA) in Retirement (Cont.)</p> <p><u>Exceptions to COLA Effective Dates:</u> Same as Plan 1 and Plan 2.</p>

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Plan Description (continued)

RETIREMENT PLAN PROVISIONS (CONTINUED)		
PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
<p>Disability Coverage Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted.</p> <p>VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.</p>	<p>Disability Coverage Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased or granted.</p> <p>VSDP members are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.</p>	<p>Disability Coverage Employees of political subdivisions (including Plan 1 and Plan2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides an employer-paid comparable program for its members.</p> <p>Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.</p>
<p>Purchase of Prior Service Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. When buying service, members must purchase their most recent period of service first. Members also may be eligible to purchase periods of leave without pay.</p>	<p>Purchase of Prior Service Same as Plan 1.</p>	<p>Purchase of Prior Service <u>Defined Benefit Component:</u> Same as Plan 1, with the following exceptions:</p> <ul style="list-style-type: none"> • Hybrid Retirement Plan members are ineligible for ported service. • The cost for purchasing refunded service is the higher of 4% of creditable compensation or average final compensation. • Plan members have one year from their date of hire or return from leave to purchase all but refunded prior service at approximate normal cost. After that one-year period, the rate for most categories of service will change to actuarial cost. <p><u>Defined Contribution Component:</u> Not applicable.</p>

Pension Plan Data

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Employees Covered by Benefit Terms

As of the June 30, 2015 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	<u>Number</u>
Inactive members or their beneficiaries currently receiving benefits	11
Inactive members:	
Vested inactive members	2
Non-vested inactive members	3
Inactive members active elsewhere in VRS	<u>6</u>
Total inactive members	11
Active members	<u>25</u>
Total covered employees	<u><u>47</u></u>

Contributions

The contribution requirement for active employees is governed by §51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5.00% member contribution may have been assumed by the employer. Beginning July 1, 2012 new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5.00% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution.

The Authority's contractually required contribution rate for the year ended June 30, 2017 was 5.86% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015.

This rate, when combined with 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 \$77,470 and \$90,504 for the years ended June 30, 2017 and June 30, 2016, respectively.

Net Pension (Asset) Liability

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

Actuarial Assumptions – 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, 2015, 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, 2016.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Actuarial Assumptions – General Employees (continued)

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

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

Mortality rates: 14% of deaths are assumed to be service related

Largest 10 – Non-LEOS:

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 4 years and females set back 2 years

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with males set forward 1 year

Post-Disablement:

RP-2000 Disability Life Mortality Table Projected to 2020 with males set back 3 years and no provision for future mortality improvement

All Others (Non 10 Largest) – Non-LEOS:

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 4 years and females set back 2 years

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with males set forward 1 year

Post-Disablement:

RP-2000 Disability Life Mortality Table Projected to 2020 with males set back 3 years and no provision for future mortality improvement

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

Largest 10 – Non-LEOS:

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

All Others (Non 10 Largest) – Non-LEOS:

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Long-Term Expected Rate of Return

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

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

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

Discount Rate

The discount rate used to measure the 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. Through the fiscal year ending June 30, 2018, the rate contributed by the employer for the Appomattox River Water Authority Retirement Plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2018 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

Changes in Net Pension Liability (Asset)

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2015	\$ 5,277,381	\$ 5,169,658	\$ 107,723
Changes for the year:			
Service cost	\$ 134,438	\$ -	\$ 134,438
Interest	361,682	-	361,682
Differences between expected and actual experience	(28,955)	-	(28,955)
Contributions - employer	-	90,504	(90,504)
Contributions - employee	-	71,510	(71,510)
Net investment income	-	90,092	(90,092)
Benefit payments, including refunds of employee contributions	(221,000)	(221,000)	-
Administrative expenses	-	(3,223)	3,223
Other changes	-	(38)	38
Net changes	<u>\$ 246,165</u>	<u>\$ 27,845</u>	<u>\$ 218,320</u>
Balances at June 30, 2016	<u>\$ 5,523,546</u>	<u>\$ 5,197,503</u>	<u>\$ 326,043</u>

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

The following presents the net pension liability (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		
	<u>(6.00%)</u>	<u>(7.00%)</u>	<u>(8.00%)</u>
Appomattox River Water Authority Net Pension Liability (Asset)	\$ 934,884	\$ 326,043	\$ (188,750)

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 5 - PENSION PLAN: (continued)

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

For the year ended June 30, 2017, the Authority recognized pension expense of \$137,625. At June 30, 2017, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 130,141	\$ 20,822
Net difference between projected and actual earnings on pension plan investments	136,182	-
Employer contributions subsequent to the measurement date	<u>77,470</u>	<u>-</u>
Total	<u>\$ 343,793</u>	<u>\$ 20,822</u>

\$77,470 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as an increase of the Net Pension Liability (Asset) in the year ended June 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<u>Year ended June 30</u>	
2018	\$ 69,451
2019	49,144
2020	72,985
2021	53,921
Thereafter	-

NOTE 6 - COMPENSATED ABSENCES:

Accumulated unpaid vacation, vested sick leave and other compensatory leave amounts are accrued when incurred. At June 30, 2017 and 2016 liabilities were as follows:

	<u>2017</u>	<u>2016</u>
Accumulated and compensatory leave	\$ <u>170,612</u>	\$ <u>156,919</u>

Sick leave is vested and payable upon eligible retirement from the Authority and accordingly recorded as a liability in the financial statements.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 7 - RISK MANAGEMENT:

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Authority joined together with other local governments in the State to form the Virginia Municipal Group Self Insurance Association, a public entity risk pool currently operating as a common risk management and insurance program for member governments. The Authority pays an annual premium to the pool for its workers compensation coverage and other liability insurance. The Agreement for Formation of the association provides that the association will be self-sustaining through member premiums. The Authority also participates in the VaRisk2, a group liability self insurance plan, administered by the Commonwealth of Virginia, Department of General Services, Division of Risk Management. The Authority pays an annual premium for its public officials general liability insurance to the public entity risk pool currently operating as a common risk management and insurance program for participating governments. Settled claims have not exceeded pool coverage in any of the past three fiscal years.

The Authority continues to carry commercial insurance for all other risks of loss, including employee health and accident insurance. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

NOTE 8 - OTHER POSTEMPLOYMENT HEALTH CARE BENEFITS:

A. Plan Description:

General employees can purchase health insurance at published rates if they retire under the VRS general employees plan. Reduced retirement under the VRS plan is at the earlier of age 50 with 10 years of service or age 55 with 5 years of service. If hired after July 1, 2010 and do not have 5 years of vested service by January 1, 2013 then the earlier retirement age is the earlier of age 60 with 5 years of service or 90 combined age and service points for other employees.

B. Funding Policy:

These benefits are financed on a pay-as-you-go basis.

An actuarial valuation was performed as of July 1, 2016 to determine the Net OPEB obligation. The plan is not funded. The valuation used the projected unit cost method, with linear pro-ratio to assumed benefit commencement.

C. Annual OPEB Cost and Net OPEB Obligation:

The Authority's annual other postemployment benefit (OPEB) cost (expense) is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize and unfunded actuarial liabilities (or funding excess) over a period not exceeding thirty years. The following table shows the components of the Authority's annual OPEB cost for the year, the amount actually contributed to the plan, and changes in the Authority's net OPEB obligation.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 8 - OTHER POSTEMPLOYMENT HEALTH CARE BENEFITS: (continued)

C. Annual OPEB Cost and Net OPEB Obligation: (continued)

Annual required contribution	\$	10,900
Interest on net OPEB obligation		2,300
Adjustment to annual required contribution		<u>(2,700)</u>
Annual OPEB cost (expense)	\$	10,500
Contributions made		<u>12,200</u>
Increase in net OPEB obligation	\$	(1,700)
Net OPEB obligation, beginning of year		<u>65,000</u>
Net OPEB obligation, end of year	\$	<u><u>63,300</u></u>

The Authority's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year ending June 30, 2017 and the two previous fiscal years were as follows:

<u>Fiscal Year Ended</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>
June 30, 2015	\$ 14,064	0.0%	\$ 55,500
June 30, 2016	9,500	0.0%	65,000
June 30, 2017	10,500	0.0%	63,300

D. Funded Status and Funding Progress:

As of July 1, 2016, the most recent actuarial valuation date, the plan was 0% funded. The unfunded actuarial accrued liability (UAAL) is \$113,900. The covered payroll (annual payroll of active employees covered by the plan) was unavailable.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

E. Actuarial Methods and Assumptions:

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 8 - OTHER POSTEMPLOYMENT HEALTH CARE BENEFITS: (continued)

E. Actuarial Methods and Assumptions: (continued)

In the July 1, 2016 actuarial valuation, the projected unit credit actuarial cost method was used. The actuarial assumptions included a 3.50% investment rate of return (net of administrative expenses), which is expected long-term investment returns on the employer's own investments calculated, and an annual healthcare cost trend rate of 7.5% initially, gradually decreasing over time. By 2030 the rate of increase is 5.70%, and by 2050 5.0%. The rates include a 2.5% inflation assumption. The UAAL is being amortized as a level percentage of projected payroll on a closed basis over thirty years.

NOTE 9 - DEFERRED COMPENSATION PLAN:

Eligible employees of the Authority may participate in a deferred compensation plan in accordance with Internal Revenue Code section 457. The plan permits participants to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination of employment, retirement, death or an unforeseen emergency. The Authority has no fiduciary responsibility for the plan, has no liability for losses incurred under the plan as the plan is administered by the U.S. Conference of Mayors and the plan is not accessible by the Authority's creditors; therefore, any related assets and liabilities are not reflected in the financial statements.

NOTE 10 - RELATED PARTY TRANSACTIONS:

The Authority is governed by a common Board of Directors with the South Central Wastewater Authority ("SCWWA"). The Authority has an agreement with SCWWA to share several key positions utilized by both the Authority and SCWWA. Accordingly the two Authorities share personnel costs necessary to fund the positions. During the current fiscal year the Authority reported reimbursement in the amount of \$211,073 from SCWWA including \$107,699 reported as accounts receivable at June 30, 2017 for reimbursement of salary and benefits paid to Authority employees that allocate time and duties with SCWWA. Similarly, the Authority pays a reimbursement to SCWWA for salary and benefits for SCWWA employees that allocate time and duties with the Authority. The Authority reported expenses of \$218,859 as reimbursement.

NOTE 11 – FAIR VALUE MEASUREMENTS:

Fair value for investments is determined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The three-level fair value hierarchy prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Significant observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 11 – FAIR VALUE MEASUREMENTS: (continued)

- Level 3 — Significant unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The Authority is providing the following information related to its investments:

	<u>Fair Value Measurements at Reporting Date Using</u>			
	<u>Total</u>	<u>Quoted Prices</u>	<u>Significant</u>	<u>Significant</u>
	<u>June 30,</u>	<u>in Active</u>	<u>Other</u>	<u>Unobservable</u>
	<u>2017</u>	<u>Markets for</u>	<u>Observable</u>	<u>Inputs</u>
		<u>Identical</u>	<u>Inputs</u>	<u>(Level 3)</u>
		<u>Assets</u>	<u>(Level 2)</u>	
		(Level 1)		
U.S. Treasury & Agency Money Market Fund:	\$ <u>7,574,175</u>	<u>7,574,175</u>	<u>-</u>	<u>-</u>
Total investments measured at fair value	\$ <u>7,574,175</u>	\$ <u>7,574,175</u>	\$ <u>-</u>	\$ <u>-</u>

NOTE 12 - UPCOMING PRONOUNCEMENTS:

Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pension*, improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). This Statement replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple Employer Plans*, for OPEB. Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, establishes new accounting and financial reporting requirements for OPEB plans. This Statement is effective for fiscal years beginning after June 15, 2017.

Statement No. 81, *Irrevocable Split-Interest Agreements*, improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2016, and should be applied retroactively.

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

APPOMATTOX RIVER WATER AUTHORITY

Notes to Financial Statements
June 30, 2017 (continued)

NOTE 12 - UPCOMING PRONOUNCEMENTS: (continued)

Statement No. 86, Certain Debt Extinguishment Issues, improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources—resources other than the proceeds of refunding debt—are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The requirements of this Statement are effective for reporting periods beginning after June 15, 2017.

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

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

- Required Supplementary Information -

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Schedule of Changes in Net Pension (Asset) Liability and Related Ratios
For the Year Ended June 30, 2017

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability			
Service cost	\$ 134,438	\$ 128,956	115,714
Interest	361,682	323,274	304,237
Differences between expected and actual experience	(28,955)	280,591	-
Benefit payments, including refunds of employee contributions	<u>(221,000)</u>	<u>(147,277)</u>	<u>(148,713)</u>
Net change in total pension liability	\$ 246,165	\$ 585,544	271,238
Total pension liability - beginning	<u>5,277,381</u>	<u>4,691,837</u>	<u>4,420,599</u>
Total pension liability - ending (a)	<u>\$ 5,523,546</u>	<u>\$ 5,277,381</u>	<u>4,691,837</u>
 Plan fiduciary net position			
Contributions - employer	\$ 90,504	\$ 84,275	84,546
Contributions - employee	71,510	66,467	62,807
Net investment income	90,092	227,824	674,742
Benefit payments, including refunds of employee contributions	(221,000)	(147,277)	(148,713)
Administrative expense	(3,223)	(3,066)	(3,607)
Other	<u>(38)</u>	<u>(48)</u>	<u>35</u>
Net change in plan fiduciary net position	\$ 27,845	\$ 228,175	669,810
Plan fiduciary net position - beginning	<u>5,169,658</u>	<u>4,941,483</u>	<u>4,271,673</u>
Plan fiduciary net position - ending (b)	<u>\$ 5,197,503</u>	<u>\$ 5,169,658</u>	<u>4,941,483</u>
 Political subdivision's net pension (asset) liability - ending (a) - (b)	\$ 326,043	\$ 107,723	(249,646)
 Plan fiduciary net position as a percentage of the total pension (asset) liability	94.10%	97.96%	105.32%
 Covered payroll	\$ 1,467,991	\$ 1,339,006	1,256,141
 Political subdivision's net pension (asset) liability as a percentage of covered payroll	22%	8%	(20%)

This schedule is intended to report information for 10 years. Information prior to the 2014 valuation is not available. Additional years will be included when available.

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Schedule of Employer Contributions

For the Year Ended June 30, 2017

Fiscal Year	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Employee Payroll (4)	Contributions as a % of Covered Payroll (5)
2008	\$ 46,604	\$ 46,604	\$ -	\$ 1,022,007	4.56%
2009	3,853	3,853	-	1,041,243	0.37%
2010	3,592	3,592	-	970,852	0.37%
2011	29,570	29,570	-	1,033,917	2.86%
2012	28,190	28,190	-	985,675	2.86%
2013	74,118	74,118	-	1,126,410	6.58%
2014	82,654	82,654	-	1,256,141	6.58%
2015	87,660	87,660	-	1,339,006	6.55%
2016	90,504	90,504	-	1,467,991	6.17%
2017	77,470	77,470	-	1,462,461	5.30%

APPOMATTOX RIVER WATER AUTHORITY

S. Chesterfield, Virginia

Notes to Required Supplementary Information

For the Year Ended June 30, 2017

Changes of benefit terms – There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this is a fairly new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2016 are not material.

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

Largest 10 – Non-LEOS:

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

All Others (Non 10 Largest) – Non-LEOS:

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

APPOMATTOX RIVER WATER AUTHORITY
S. Chesterfield, Virginia

Schedule of OPEB Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
July 1, 2012	\$ -	\$ 113,000	\$ 113,000	0.00%	\$ 1,194,723	9.46%
July 1, 2013	-	79,200	79,200	0.00%	N/A	N/A
July 1, 2014*	-	88,000	88,000	0.00%	N/A	N/A
July 1, 2015*	-	97,000	97,000	0.00%	N/A	N/A
July 1, 2016	-	113,900	113,900	0.00%	N/A	N/A

* The July 1, 2013 actuarial valuation included a rollforward of the unfunded actuarial liability related information.

- Compliance -

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 Board of Directors
Appomattox River Water Authority
S. Chesterfield, 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 Appomattox River Water Authority as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise Appomattox River Water Authority's basic financial statements and have issued our report thereon dated September 25, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Appomattox River Water 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 Appomattox River Water Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Appomattox River Water 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 Appomattox River Water Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

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

Robinson, Farmer, Cox Associates

Charlottesville, Virginia
September 25, 2017