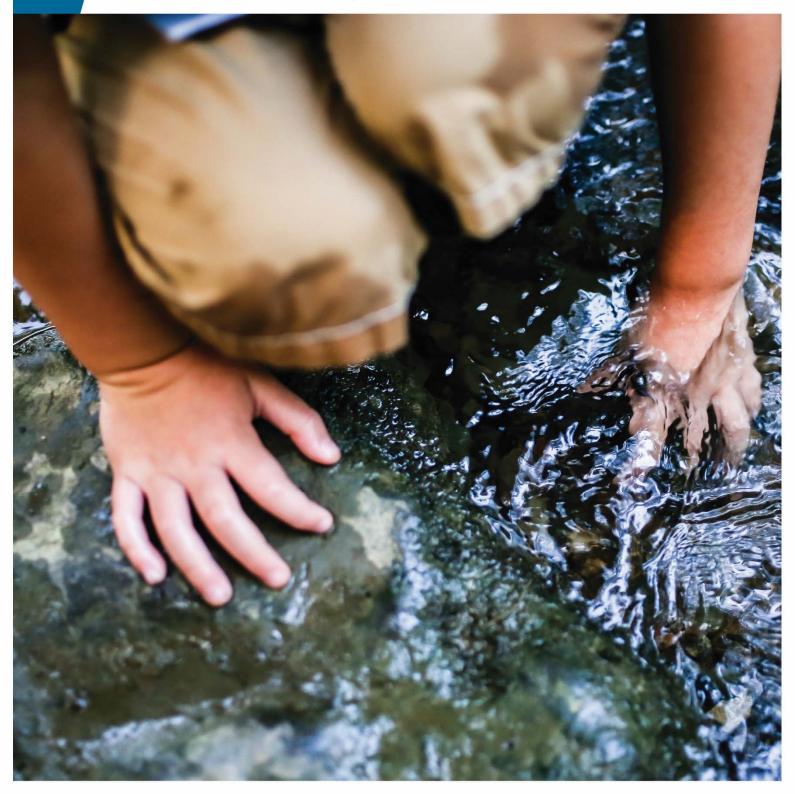
2017

## Alexandria Renew Enterprises Comprehensive Annual Financial Report For the Fiscal Year Ended September 30, 2017

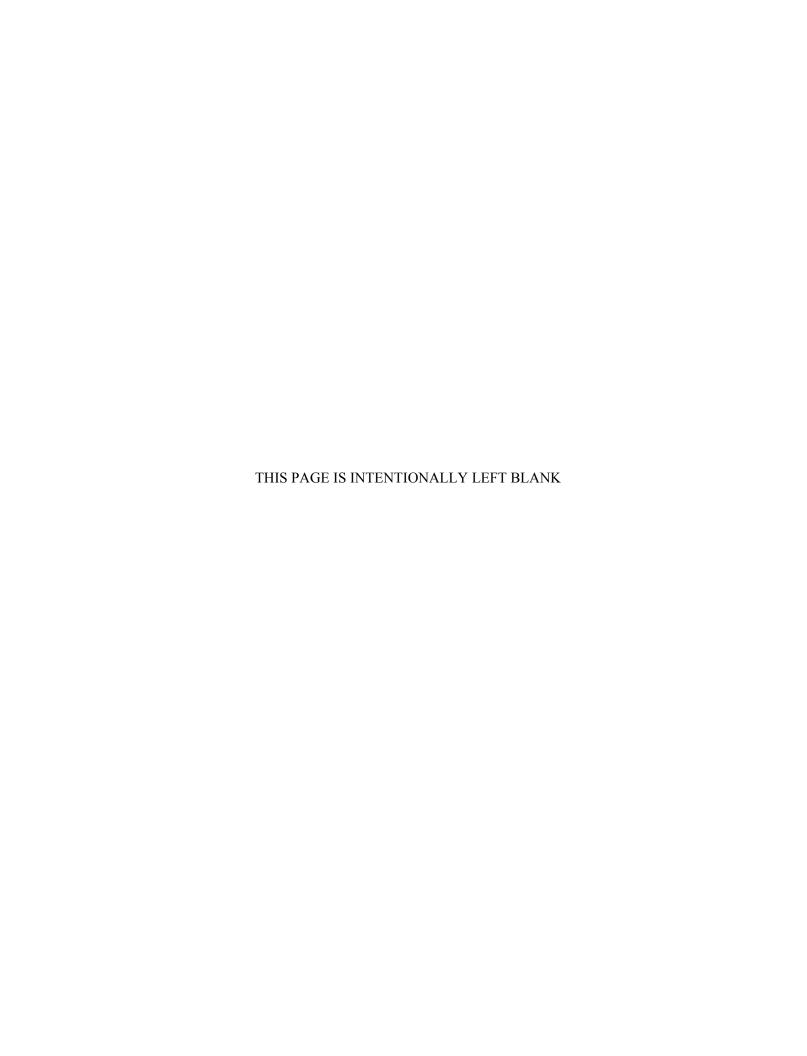




ALEXANDRIA, VA

Transforming Water to Transform our Community

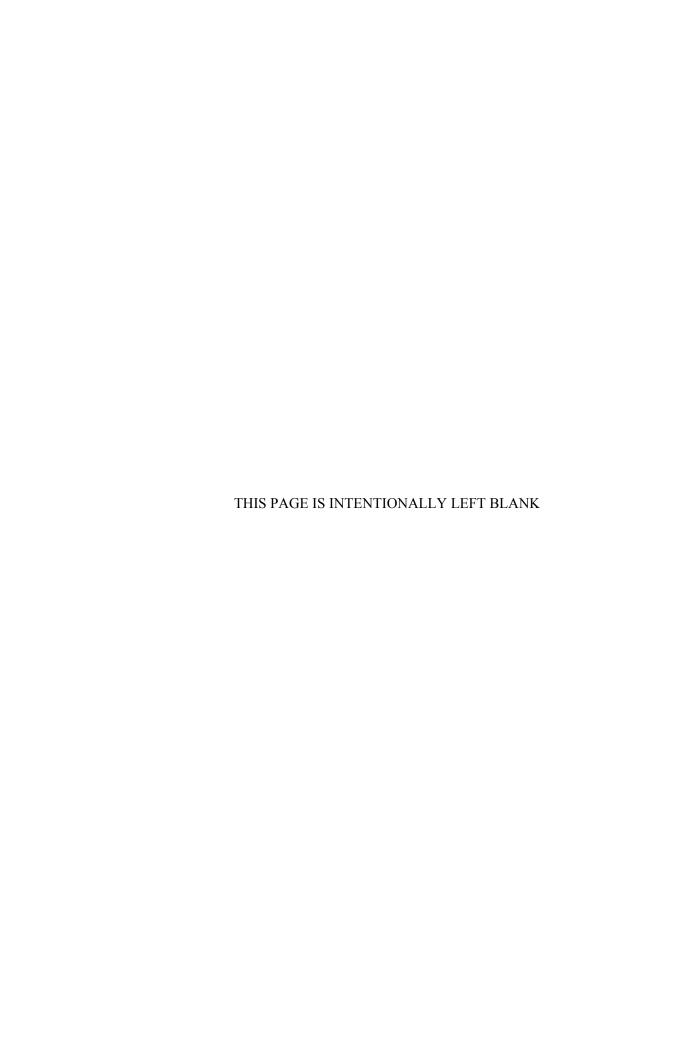
# ALEXANDRIA RENEW ENTERPRISES COMPREHENSIVE ANNUAL FINANCIAL REPORT FISCAL YEAR ENDED SEPTEMBER 30, 2017



#### ALEXANDRIA RENEW ENTERPRISES COMPREHENSIVE ANNUAL FINANCIAL REPORT YEAR ENDED SEPTEMBER 30, 2017

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## **INTRODUCTORY SECTION**



#### ALEXANDRIA RENEW ENTERPRISES CHIEF EXECUTIVE OFFICER'S TRANSMITTAL LETTER

January 9, 2018

To the Board of Directors of Alexandria Renew Enterprises and Our Customers and Stakeholders:

I am pleased to present the Alexandria Renew Enterprises (AlexRenew) Comprehensive Annual Financial Report (CAFR) for the fiscal year ended September 30, 2017. This report will present the financial position of AlexRenew and will demonstrate compliance with applicable finance-related legal and contractual provisions. This report will also reflect the principle of full disclosure, allowing readers to gain maximum understanding of AlexRenew's financial position.

Moore Stephens Lovelace, an independent accounting and consulting services firm, along with the AlexRenew Finance Department, have prepared this report in accordance with generally accepted accounting principles (GAAP) as recommended by the Governmental Accounting Standards Board (GASB). This report has been audited by a firm of independent certified public accountants retained by AlexRenew.

The accuracy of the data represented, as well as the completeness and fairness of the presentation, including all disclosures, is the responsibility of AlexRenew. To the best of our knowledge and belief, this report is accurate in all material respects and presents fairly the financial position and results of operations of AlexRenew.

#### ABOUT ALEXRENEW: A Current Profile of Alexandria's Water Utility of the Future

Established in 1952 by the Alexandria City Council, our chartered mission was and remains to clean wastewater and protect public health and the environment. We started operations in 1956 with a mandate to transform water. Since then, we have invested hundreds of millions of dollars in critical clean water infrastructure. We currently own approximately \$945 million in total assets that includes three pump stations, two service chambers, four intercepting sewers, and our water resource recovery facility.

Today, AlexRenew cleans approximately 35 million gallons of dirty water daily on an urban facility that includes wastewater interception, pumping and treatment facilities designed for 54 million gallons per day. We employ approximately 100 environmental stewards that serve more than 300,000 customers in the City of Alexandria (City) and parts of Fairfax County (County) through separate contractual relationships.

AlexRenew is governed by an Alexandria City Council appointed five-member citizen Board of Directors (Board), and is a political subdivision of the Commonwealth of Virginia created under the Virginia Water and Waste Authorities Act. We are an independent, special-purpose government unit with administrative and financial independence from the City.

We have had no permit violations for 12 consecutive years, having remained compliant with strict environmental limits for nutrients released back into Hunting Creek. Each year during this 12-year period, the National Association of Clean Water Agencies (NACWA) has presented AlexRenew with its Platinum Peak Performance Award for 100% compliance with its National Pollutant Discharge Elimination System (NPDES) permit requirements.

AlexRenew also continues to maintain its top rating in environmental stewardship within the Commonwealth of Virginia; we were once again named an Extraordinary Environmental Enterprise in the Virginia Environmental Excellence Program (VEEP) by The Virginia Department of Environmental Quality (DEQ). In addition, in fiscal year 2017, we were named a VEEP Sustainability Partner, an annual recognition for organizations that make environmental sustainability part of their culture. This is the second year that AlexRenew has received this recognition.

We have demonstrated our focus on environmental sustainability by renewing resources that help improve our environment. We reuse about 1.4 billion gallons of reclaimed water per year in our daily operations and as a result, we are able to mitigate the burden on the City's potable water system and save almost \$3

million in drinking water expenses. In the process of cleaning dirty water in fiscal year 2017, we generated more than 107 million cubic feet of renewable methane gas – enough to offset our purchased energy by 22%. We also recovered 5400 dry tons of bio-solids to help farmers replenish their soil.

#### LOCAL ECONOMY

The City has experienced a stable economy over the last decade, and this trend is expected to continue. As an inner suburb to Washington, DC, the City has been impacted in various ways due to major recent changes in federal spending. While City employment has declined approximately 5.2% over the last decade, inflation-adjusted average annual wages have increased 11.7%. A related benchmark is the City's unemployment rate — measured at 2.7% in September 2017, it remains well below the national unemployment rate of 4.1% and Virginia unemployment rate of 3.6%.

The largest sectors of employment by total wages in the City are professional scientific and technical services, and public administration. The U.S. Patent and Trademark Office continues to expand and the National Science Foundation, with 3,100 high level jobs, just completed its relocation to the City.

City real estate values continue to grow as assessed real property increased 2.07% in 2017. While the City's average office vacancy rate remains relatively high, it is well below neighboring Arlington County.

#### 2040 VISION AND STRATEGIC OUTCOMES

Our budget is aligned with our 2040 vision and strategic outcomes. We focus our work to support our vision and the following strategic outcomes:

- <u>Operational Excellence</u>: Enhance operational excellence to meet or surpass environmental requirements under all conditions.
- <u>Community Engagement</u>: Engage the communities we serve to increase understanding and commitment to water quality so that every person and organization demonstrates the important role they contribute to this effort.
- <u>Watershed Partnerships</u>: Create structural processes that enable partnerships to manage water as one resource.
- <u>Enhancing Organizational Competency</u>: Improve and maintain the institutional competency of AlexRenew to achieve its long-range strategic objectives by enabling all levels of the organization to learn, adapt, and innovate.
- Revenue Stewardship: Maximize revenues to ensure financial stability while seeking revenue diversity.
- <u>Incubator of New Ideas and Innovations</u>: Develop and implement innovative ideas and technologies to enhance resiliency and sustainability.

#### **FY 2017 ACHIEVEMENTS**

#### Ultraviolet (UV) Disinfection Upgrade

In fiscal year 2017, as part of our systematic renewal and replacement program, AlexRenew completed construction of its Ultraviolet Light Disinfection System (UV) upgrade. This UV upgrade will result in a more energy efficient disinfection process and improved operations during high flow events.

#### Completion of State of the Art Nitrogen Upgrade Program

As part of our State of the Art Nitrogen Upgrade Program (SANUP) completed in 2016 and as required by our Development Special Use Permit (DSUP), AlexRenew constructed a multi-purpose athletic field for use by the City's Parks and Recreation Department. The field was completed and turned over to the City for scheduling and use in spring 2017.

#### **Utilizing Deammonification to Use Less Energy and Chemicals**

Our mainstream anammox process became operable in December 2016. It represents the first full-scale installation in the United States that implements shortcut nitrogen removal processes incorporating an innovative deammonification pathway in mainstream biological treatment. Since process startup, AlexRenew has achieved, on average, over 50% savings in methanol use and nearly 15% savings in aeration power use. We have also experienced improved treatment performance of nitrogen reduction.

#### Four-Mile Run Pump Station Upgrade

In June 2017, we received our Certificate to Operate the Four Mile Run Pump Station following completion of our planned renewal and replacement upgrade project.

#### ENGAGING WITH OUR COMMUNITY

In fiscal year 2017, AlexRenew initiated an annual event dedicated to water education in the City; Water Discovery Day. One dozen partners from across the City hosted interactive activities focused on the value of water.

We also completed our clean water educational fence around our Four Mile Run Pump Station, located next to an elementary school in the City. The educational fence features 10 interactive museum-quality exhibits with bilingual descriptions and instructions designed to engage the community in the mechanics of cleaning water, and educate our citizens regarding actions they can take to help keep our waterways clean.

Approximately 3,400 guests visited our facilities in fiscal year 2017; these guests attended meetings hosted by community groups and water organizations in our Environmental Center, which features a suite of conference rooms available for public use. We also hosted approximately 60 tours for groups that included middle and high school students, adult learners, international water organizations, environmental groups, and members of civic associations.

#### WORKFORCE DEVELOPMENT INITIATIVES

Our skilled team of professionals includes thirty-five (35) licensed wastewater operators, nine (9) professional engineers, twenty (20) certified maintenance and reliability technicians, ten (10) licensed electricians, three (3) backflow prevention technicians, seven (7) ENVISION sustainability professionals, two (2) LEED Green Associates and eight (8) pipeline assessment certified employees.

We are creating job opportunities and training our workforce of tomorrow through our apprentice program. This program allows apprentices to gain the education and experience necessary for success within the field of wastewater treatment. We are currently training nine (9) apprentices to be mechanics, electricians and wastewater operators. In fiscal year 2017, we celebrated our third graduating class of apprentices while welcoming five new apprentices.

Last year, AlexRenew hosted two high school seniors under the Urban Alliance High School Internship Program. This partnership with the Urban Alliance represents our effort to engage in youth development by providing young people with the professional skills necessary to succeed in the labor market of tomorrow. A yearlong program, AlexRenew provides each student with formal training and mentoring by staff across all departments within the organization.

AlexRenew received the ComPsych Health at Work Gold Award, which was based on our wellness program's comprehensiveness, delivery, promotion, participation rates and results achieved. We continued our annual participation in the United Way program and food and toy drive during the holiday season.

#### AWARDS AND RECOGNITION

For its 2016 Comprehensive Annual Financial Report, AlexRenew received the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting. This certificate is the highest form of recognition in governmental accounting and financial reporting provided by the GFOA. AlexRenew has been a recipient of this recognition each of the last nine years.

The National Association of Clean Water Agencies awarded AlexRenew with two National Environmental Achievement awards – one for our energy savings program and the other for our public outreach online content strategy.

Our State of the Art Nitrogen Upgrade (SANUP) project received a national Project Excellence Award from the Water Environment Federation. This award recognized the project's future value to the water sector, sustainability, innovation, and contributions to the well-being of surrounding communities.

The CEO of AlexRenew was recognized this year for her public service, service to the water profession, and community leadership as the recipient of the Emerson Service Award from the Water Environment Federation. She was also named a Northern Virginian of the Year by *Northern Virginia Magazine*, and a Woman Who Means Business by the *Washington Business Journal*.

Finally, we received a national award from the American Association of Environmental Engineers and Scientists for public outreach excellence for our website and social media content strategy.

#### FINANCIAL DISCUSSION

#### **Financial Condition**

AlexRenew's financial condition remains strong at fiscal year-end. We achieved each of our financial covenants, as prescribed by our Master Indenture of Trust (Indenture), and policy targets while also maintaining sufficient liquidity and a responsible unrestricted net position.

We maintained appropriate fiscal and business discipline as we implemented our FY2017 operating and maintenance budget resulting in a moderate budget excess, strengthening our financial position. A marginal increase to our variable flow charge supported necessary revenue growth and close expense control insured spending was targeted, responsible and in keeping with our revenue stewardship obligations.

Our capital budget included \$4.35 million for improvements and replacements, and nearly \$22.5 million for new or continuing larger-scale projects. As noted previously herein, major projects funded included, among others, the Four Mile Run Pump Station, SANUP, our Environmental Center, and process optimization improvements to our mainstream deammonification and UV disinfection systems.

During FY2017, we closed a \$23.0 million tax-exempt bond issue through the Virginia Resources Authority. Proceeds from this transaction were used to repay a \$10.0 million line of credit and to fund \$13 million in various capital improvement needs.

As we look forward to FY2018 and beyond, AlexRenew will continue to emphasize best practices and fiscal discipline to insure our financial resiliency and to sustain a strong financial position.

#### **Investment Policy**

AlexRenew manages the investment of its cash and other financial instruments in strict accordance with the Code of Virginia, other applicable laws and regulations, and our Board approved investment policy. We are focused, first and foremost on capital preservation and liquidity while achieving a market return on our financial resources.

#### **Capital Assets**

AlexRenew's capital assets are currently valued at a cost of nearly \$945 million. This is reflective of a significant capital program in recent years that will continue as we look forward to the implementation of our wet weather program. AlexRenew will be leveraging enhancements to its wastewater treatment system to eliminate a sanitary sewer overflow point and manage certain jurisdictional sanitary sewer flows in an effort to assist the City in remediating their combined sewer overflow issue – projects that are expected to include meaningful capital investment.

Our FY2018 capital budget has been approved at approximately \$22.2 million and includes the first major funding component for our wet weather program. Our capital budget includes up to \$10 million in bonded debt.

#### **Budget and Internal Controls**

The Board approves an annual operating and capital budget each September for the following fiscal year period October 1 through September 30. The budget is initially delivered to the Board in May providing for approximately four months of review, consideration and public input. This process includes formal public notices and a public hearing to insure our community receives full disclosure and has the opportunity to participate in developing the budget.

The Board does not have the authority to create "appropriations bills or ordinances," but approves the annual budget to ensure compliance with environmental regulations, our Indenture and service agreements, and to recover our costs to deliver service.

AlexRenew has two major sources of revenue including wastewater treatment charges paid by City residential, commercial and industrial customers, and reimbursements from the County for certain operating, maintenance and capital costs. Under a formal service agreement, the County pays a percentage of operating expenses based upon flow volume into the AlexRenew treatment facility, makes a predetermined annual deposit into our Improvement, Renewal and Replacement Fund, and makes recurring, defined contributions into our capital project fund in support of capital projects that benefit the County.

AlexRenew's annual operating and capital budget is a modified accrual basis document with revenues established based upon available resources. AlexRenew bills City customers monthly for wastewater treatment based on water consumption at rates approved by the Board.

AlexRenew has established and maintains an internal accounting control structure that ensures our assets are safeguarded against loss, theft or misuse. We also maintain accurate and reliable financial records for the preparation of financial statements and representations made by AlexRenew. Our internal accounting control structure provides reasonable, but not absolute, assurance that we meet these objectives. The concept of reasonable assurance recognizes that the cost of internal controls should not exceed the benefits derived from the controls. The evaluation of costs and benefits rests with AlexRenew.

#### CONCLUSION

Brown Edwards & Company, L.L.P, an independent registered public accounting firm, has audited AlexRenew's financial statements. The goal of the independent audit is to provide reasonable assurance that the financial statements of AlexRenew for the fiscal year ended September 30, 2017 are not materially misstated.

The independent auditors have rendered their opinion on AlexRenew's financial statements for the fiscal year ended September 30, 2017. The independent auditors' report is presented as the first component of the financial section of this report. Management's Discussion and Analysis (MDA) follows the independent auditors' report and provides a general overview and analysis of the accompanying financial statements. This letter of transmittal is prepared to complement the MDA and should be read in conjunction with it.

Thank you to our staff, in particular our finance team, and the professionals at Moore Stephens Lovelace whose hard work and dedication has made possible the preparation of this CAFR. Thank you to our Board as well for their vision, leadership and passion for our mission and the important work we do at AlexRenew.

Regards,

Karen Pallansch, P.E., BCEE, WEF Fellow

Chief Executive Officer
Alexandria Renew Enterprise

#### **ALEXANDRIA RENEW ENTERPRISES**

#### **DIRECTORY OF PRINCIPAL OFFICIALS**

**September 30, 2017** 

#### **BOARD OF DIRECTORS**

John Hill - Chairman Bruce Johnson - Vice Chairman William Dickinson - Secretary/Treasurer James Beall Patricia Turner

Shahram Mohsenin, Fairfax County Representative

#### **CHIEF EXECUTIVE OFFICER (CEO)**

Karen L. Pallansch, P.E., BCEE

#### **SENIOR STAFF**

Stephen J. Schemmel – Chief of Finance and Administration Charles Logue – Chief of Production Jonathan Rak, Esq., McGuireWoods – General Counsel

#### INDEPENDENT AUDITORS

Brown, Edwards & Company, L.L.P.

#### **ALEXANDRIA RENEW ENTERPRISES**

#### **BOARD OF DIRECTORS**





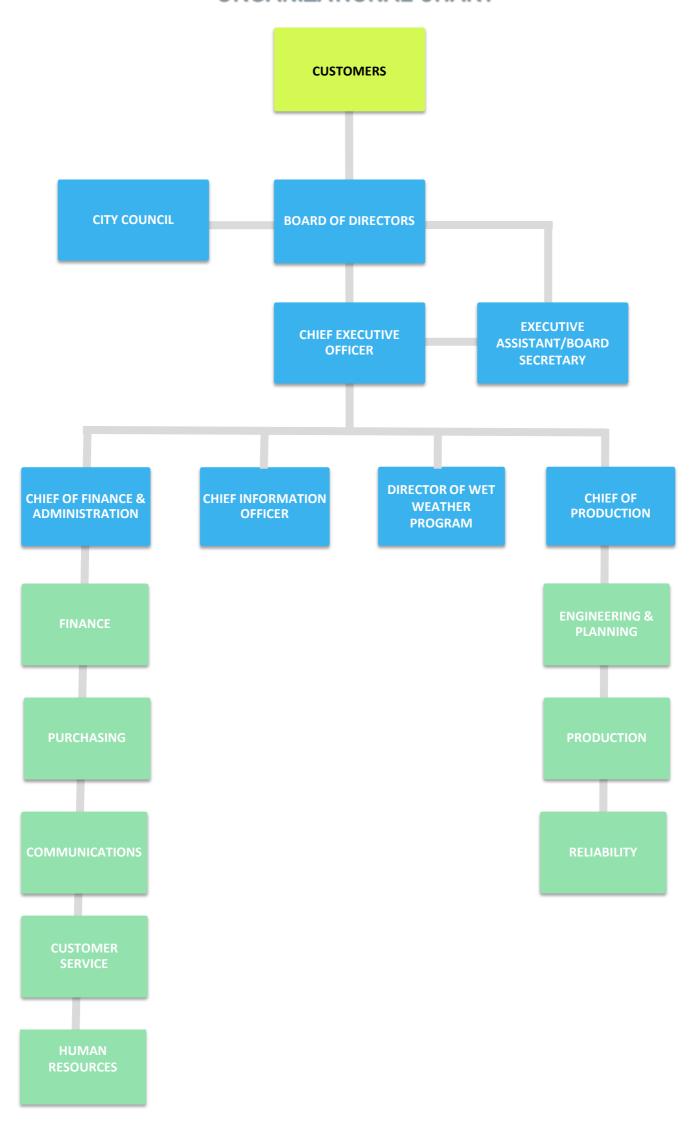






Pictured from top left to right: Chairman John Hill, Vice Chairman Bruce Johnson Bottom row from left to right: Mr. William Dickinson (Secretary/Treasurer), Mr. James Beall, and Ms. Patricia Turner

### **ORGANIZATIONAL CHART**





Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

## Alexandria Renew Enterprises Virginia

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

September 30, 2016

Christopher P. Morrill

Executive Director/CEO



## FINANCIAL SECTION





#### INDEPENDENT AUDITOR'S REPORT

To the Board of Directors Alexandria Renew Enterprises Alexandria, Virginia

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

We have audited the accompanying financial statements of the business-type activity and the fiduciary fund of Alexandria Renew Enterprises as of and for the years ended September 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise Alexandria Renew Enterprises' basic financial statements as listed in the table of contents.

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

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

#### Auditor's Responsibility

Our responsibility is to express opinions on the financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and *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 auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the 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 opinions.

#### **Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activity and the fiduciary fund of Alexandria Renew Enterprises, as of September 30, 2017 and 2016, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matters**

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the other required supplementary information as described in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Alexandria Renew Enterprises' basic financial statements. The introductory and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

#### Other Reporting Required by Government Auditing Standards

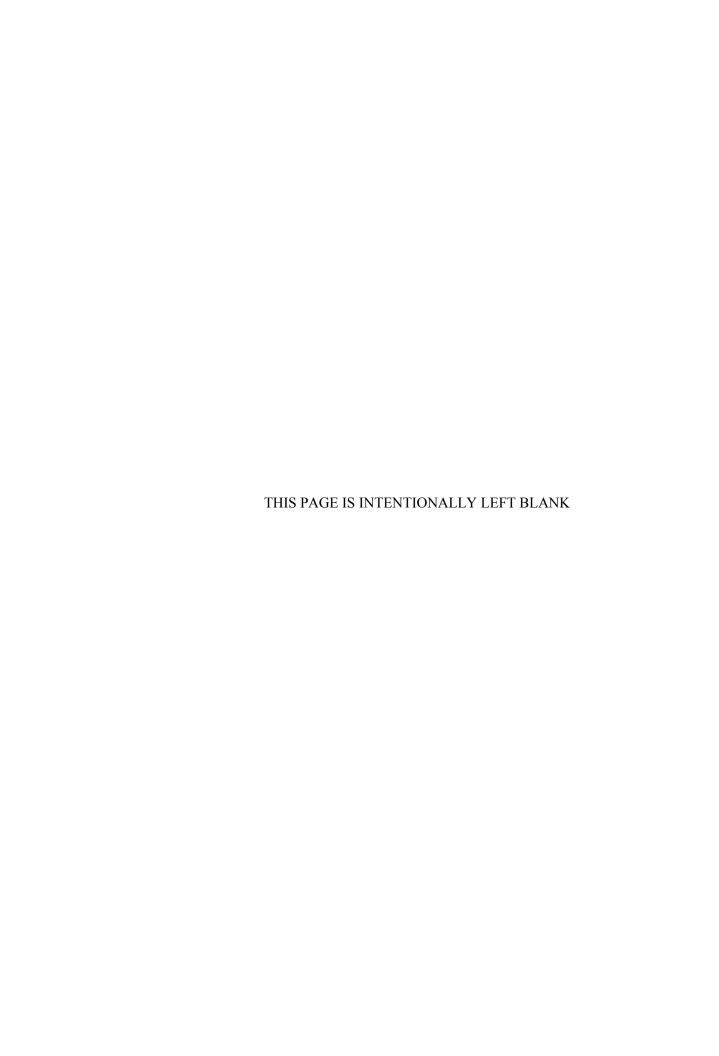
In accordance with *Government Auditing Standards*, we have also issued our report dated January 9, 2018 on our consideration of Alexandria Renew Enterprises' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Alexandria Renew Enterprises' internal control over financial reporting and compliance.

**CERTIFIED PUBLIC ACCOUNTANTS** 

Brown, Edwards & Company, S. L. P.

Harrisonburg, Virginia January 9, 2018





#### **Summary of Organization and Business**

On May 15, 2012, the Board of Directors of the Alexandria Sanitation Authority approved an amendment to its bylaws to permit the use of "Alexandria Renew Enterprises" (AlexRenew) as the trade name of the organization. Throughout this document, the term "Authority" will be used in reference to the Alexandria Sanitation Authority, Alexandria Renew Enterprises or AlexRenew.

The Authority is a public body organized and created under the Virginia Water and Waste Authorities Act of the Code of Virginia of 1950, as amended. The Authority was created by the City Council of the City of Alexandria (City Council) in 1952 to "acquire, construct, improve, extend, operate and maintain a sewage disposal system".

Five citizen members appointed by the City Council to four-year staggered terms govern the Authority as its Board of Directors (Board).

In 1953, the Authority and neighboring Fairfax County (County) executed a service agreement by which the Authority would build a sewage treatment plant in which the County would obtain reserved treatment capacity and share in its annual operating costs in proportion to the County's actual use as measured by the volume of sewage it contributed (Service Agreement).

The Service Agreement was last amended and restated in October 1998. The major provisions relating to the County's reserved capacity (60%), payment of capital and upgrade costs, and calculation of its share of operating costs remained unchanged.

The Authority receives no financial support from the City of Alexandria (City) and has no taxing power. The revenues of the Authority are derived from wastewater treatment charges based on metered water consumption and meter size for Alexandria users, and payments from the County for its proportional share of operating expenses, replacement and renewal expense, and capital costs.

#### **Audit Assurance**

The unmodified (clean) opinion of our independent external auditors, Brown, Edwards, & Company L.L.P., is included in this report.

The financial section presents management's discussion and analysis of the Authority's financial condition and activities for the fiscal years ended September 30, 2017 (FY2017) and 2016 (FY2016). This information should be read in conjunction with the financial statements.

#### **Financial Highlights**

Management believes the Authority's financial position is strong. The Authority maintained strong debt service coverage and was in compliance with all debt covenants required by borrowing agreements. The following are key financial highlights for FY2017:

- The Authority treated 11.77 and 12.33 billion gallons of wastewater during FY2017 and FY2016, respectively. This represents a 4.6% year-over-year decrease in wastewater treated. This reduction in treated wastewater is primarily a result of less rainfall during the year which reduced the flow from combined sewers. In addition, we have experienced an ongoing community-wide effort related to water sustainability.
- The Authority experienced a marginal increase of 0.7% to 26,611 in number of accounts in FY2017 relative to FY2016.
- The wastewater treatment charge approved by the Board for FY2017 was \$6.77 per 1,000 gallons of water used plus a base charge. The FY2017 wastewater treatment usage charge was the same as FY2016. The FY2017 residential base charge of \$8.99 per month represents an increase of 7.28% relative to FY2016. Commercial customers pay a base charge based on meter size with an increasing rate for larger water meters as detailed on page 71. Wastewater treatment fees increased 3.60% in FY2017 compared to FY2016 due to an increase in the monthly base charge of 7.28%.

#### **Financial Highlights (Continued)**

- The wastewater treatment charge approved by the Board for FY2017 was \$6.77 per 1,000 gallons of water used plus a base charge. The FY2017 wastewater treatment usage charge was the same as FY2016. The FY2017 residential base charge of \$8.99 per month represents an increase of 7.28% relative to FY2016. Commercial customers pay a base charge based on meter size with an increasing rate for larger water meters as detailed on page 71. Wastewater treatment fees increased 3.60% in FY2017 compared to FY2016 due to an increase in the monthly base charge of 7.28%.
- The County contributed 5.94 and 5.96 billion gallons of wastewater flow to the Authority in FY2017 and FY2016, respectively. This represents a 0.3% year-over-year decrease and is within the County's allocation per the Service Agreement.
- Debt service coverage, on an accrual basis was 1.97x and 1.87x for FY2017 and FY2016, respectively. This exceeded the 1.10x required by the Authority's Master Indenture of Trust (Indenture) and 1.50x established by the Board's Financial Policies.
- Total assets and deferred outflows of resources for FY2017 and FY 2016 were \$822.7 million and \$812.1 million, respectively. Total assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources (Net Position) in the amounts of \$676.4 million and \$664.1 million for FY2017 and FY2016, respectively. Of the total Net Position, \$24.3 million and \$19.7 million were unrestricted and available to support operations for FY2017 and FY2016, respectively. The increase in total assets is a result of the multiple improvement, replacement and construction projects for plant infrastructure and equipment.
- Capital assets net of depreciation and amortization decreased \$3.7 million in FY2017 compared to an increase of \$34.7 million in FY2016. This decrease is primarily due to the depreciation of major assets completed in FY2016.
- Wastewater treatment charges of \$39.4 million were 3.4% higher in FY2017 compared to FY2016, a reflection of the increase in the base charge. Offsetting the base charge increase is a continuing water conservation effort by customers who install more efficient plumbing equipment and sustainable products that have resulted in reduced water consumption.
- Payments from the County of \$9.6 million in FY2017 represented the County's share of operating costs based upon their proportional contribution to total plant flow. County payments were \$9.1 million in FY2016. This slight payment increase is the result of an increase in percentage of County flow in FY2017.
- Total operating expenses, excluding depreciation and amortization, for FY2017 decreased 0.4% compared to FY2016. This decrease in operating expenses, equal to \$100,249, was due primarily to decreases in chemical costs of \$299,644, Arlington sewage disposal costs of \$622,535 and general, administrative, customer service, and other expenses of \$417,191. These decreases however, were offset by increases in personnel services costs of \$796,090, utility costs of \$111,256, maintenance costs of \$271,099, sludge disposal costs of \$33,369, and repair and replacements costs of \$27,307.

#### **Required Financial Statements**

The Authority's financial statements are prepared using generally accepted accounting principles for governmental units operated as a governmental enterprise. As a result, the financial statements of the Authority report financial information using enterprise accounting methods similar to those used by private sector companies. These statements offer short and long-term financial information about its activities.

#### Alexandria Renew Enterprises Management's Discussion and Analysis (Continued)

The statements of net position include all of the Authority's assets, deferred outflows of resources, liabilities and deferred inflows of resources, and provides information about the nature and amounts of investments in resources (assets) and obligations to Authority creditors (liabilities). It also provides the basis for computing rate of return, evaluating capital structure and assessing liquidity and financial flexibility.

The statements of revenue, expenses, and changes in net position measures the success of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all costs through its wastewater treatment rates and other fees. The Authority's rates are determined via a rate modelling process that incorporates an array of factors focused on the cost of capture, conveyance, treatment and discharge of wastewater. The rate model is updated and evaluated annually, or as circumstances warrant, to ensure the Authority recovers its full cost of service.

The statements of cash flow provides information about the Authority's cash receipts and cash payments during the fiscal year. The statement reports cash receipts, cash payments, and net changes in cash resulting from operating, investing, and financing activities, and the total change in cash during the reporting period.

In 2014, the Authority established an Other Post-Employment Benefits (OPEB) Trust Fund to fund its OPEB. It was established within the Virginia Pooled OPEB Trust Fund (Trust Fund), sponsored by the Virginia Municipal League and the Virginia Association of Counties. The Trust Fund is an investment permitted for participating municipal employers to accumulate assets to pay future OPEB benefits to retirees and their beneficiaries. The financial statements include the Statements of Fiduciary Net Position and the statements of changes in fiduciary net position for FY2017 and FY2016.

The notes to the financial statements provide required disclosures and other information that are essential to a full understanding of material data provided in the statements. The notes present information about the Authority's accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies and subsequent events, if any.

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#### Alexandria Renew Enterprises Management's Discussion and Analysis (Continued)

#### **Financial Analysis:**

The following comparative condensed financial statements and other selected information provide key financial data and indicators for management, monitoring and planning.

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

## **Condensed Statements of Net Position (Balance Sheet)** (in Millions of Dollars)

	2017	2016	\$ Change	% Change	
Current assets	\$ 20.20	\$ 23.34	\$ (3.14)	(13.4) %	
Restricted assets	33.10	16.87	16.23	96.2 %	
Investments	18.70	18.31	0.39	2.1 %	
Plant and equipment, net	747.72	751.42	(3.70)	(0.49) %	
Total Assets	819.72	809.94	9.78	1.2 %	
Deferred Outflows	3.01	2.19	0.82	37.23 %	
Current liabilities	18.40	34.86	(16.46)	(47.2) %	
Long-term liabilities	127.03	111.33	15.70	14.10 %	
Total Liabilities	145.43	146.19	(0.76)	(0.5) %	
Deferred Inflows	0.88	1.86	(0.98)	(52.75) %	
Net Investment in capital assets	622.45	630.74	(8.29)	(1.3) %	
Restricted	29.71	13.65	16.05	117.6 %	
Unrestricted	24.26	19.69	4.58	23.2 %	
<b>Total Net Position</b>	\$ 676.42	\$ 664.08	\$ 12.34	1.9 %	

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

## **Condensed Statements of Net Position (Balance Sheet)** (in Millions of Dollars)

	2016	2015	\$ Change	% Change	
Current assets	\$ 23.34	\$ 39.69	\$ (16.36)	(41.2) %	
Restricted assets	16.87	16.28	0.59	3.6 %	
Investments	18.31	18.48	(0.17)	(0.9) %	
Plant and equipment, net	751.42	716.67	34.75	4.85 %	
Total Assets	809.94	791.12	18.82	2.4 %	
Deferred Outflows	2.19	2.33	(0.14)		
Current liabilities	34.86	41.40	(6.54)	(15.8) %	
Long-term liabilities	111.33	121.58	(10.25)	(8.43) %	
Total Liabilities	146.19	162.97	(16.79)	(10.3) %	
Deferred Inflows	1.86	2.43	(0.57)		
Net Investment in capital assets	630.74	587.00	43.75	7.5 %	
Restricted	13.65	11.63	2.02	17.4 %	
Unrestricted	19.69	29.41	(9.73)	(33.1) %	
<b>Total Net Position</b>	\$ 664.08	\$ 628.04	\$ 36.04	5.7 %	

The following table reflects the Authority's revenues, expenses, and changes in net position at September 30, 2017 and 2016:

## Condensed Statements of Revenues, Expenses and Changes in Net Position (in Millions of Dollars)

	2017	2016	\$ Change	% Change	
Revenues					
Program revenues:					
Wastewater Treatment Fees & Miscellaneous	\$ 39.52	\$ 38.16	1.36	3.60 %	
Fairfax County Wastewater Fees	9.58	9.06	0.51	5.70 %	
Capital Contributions	9.12	26.67	(17.55)	(65.80) %	
General revenues:					
Investment Income	0.30	0.45	(0.16)	(34.60) %	
Total Revenues	58.51	74.35	(15.83)	(21.30) %	
Program expenses					
Depreciation and Amortization expenses	18.61	11.74	6.87	58.50 %	
Other Operating Expenses	22.67	22.77	(0.10)	(0.40) %	
Non-operating Expenses	4.90	3.80	1.10	28.90 %	
Total Expenses	46.18	38.31	7.87	20.50 %	
Changes in Net Position	12.34	36.04	(23.70)	(65.80) %	
Net Position:					
Beginning	664.08	628.04	36.04	5.70 %	
Ending	\$ 676.42	\$ 664.08	\$ 12.34	1.90 %	

The following table reflects the Authority's changes in revenues, expenses and changes in net position at September 30, 2016 and 2015:

## Condensed Statements of Revenues, Expenses and Changes in Net Position (in Millions of Dollars)

	2016	2015	<b>\$ Change</b>	% Change	
Revenues					
Program revenues:					
Wastewater Treatment Fees & Miscellaneous	\$ 38.16	\$ 37.49	0.67	1.80	
Fairfax County Wastewater Fees	9.06	10.30	(1.24)	(12.10)	
Capital Contributions	26.67	38.87	(12.20)	(31.40) %	
General revenues:					
Investment Income	0.45	0.48	(0.03)	(6.20) %	
Total Revenues	74.35	87.15	(12.81)	(14.70) %	
Program expenses					
Depreciation and Amortization expenses	11.74	10.24	1.50	14.60 %	
Other Operating Expenses	22.77	25.12	(2.35)	(9.40) %	
Non-operating Expenses	3.80	3.90	(0.10)	(2.50) %	
Total Expenses	38.31	39.26	(0.95)	(2.40) %	
Changes in Net Position	36.04	47.89	(11.85)	(24.70) %	
Net Position:					
Beginning	628.04	580.14	47.90	8.30 %	
Ending	\$ 664.08	\$ 628.04	\$ 36.04	5.70 %	

The following table summarizes other selected information of the Authority at September 30, 2017 and 2016:

#### **Other Selected Information**

		2017		2016	Di	ffe re nce	% Change
Selected data:							
Employees at year end		100		100		-	- %
Alexandria accounts		26,611		26,440		171	1 %
Wastewater treated (millions of gallons)		11,769		12,334		(565)	(5) %
Portion contributed by		,		<b>y</b>		()	(-)
Fairfax County (millions of gallons)		5,941		5,960		(19)	(0) %
Percentage contributed by		,		,		( )	( )
Fairfax County		50.48	%	48.32	%	2.16 %	6 4.47 %
Rates, Residential Customers:							
Charge per 1000 gallons of							
water consumption	\$	6.77	\$	6.77	\$	-	0 %
Base Charge		8.99		8.38		0.61	7.28 %
Average residential customer bill (based or	1 3,00	00 gallon p	er mon	th water	usage):		
Per year	\$	351.60	\$	344.28	\$	7.32	2.13 %
Per quarter		87.90		86.07		1.83	2.13 %
Per month		29.30		28.69		0.61	2.13 %
Rates, Commercial Customers:							
Charge per 1000 gallons of							
water consumption	\$	6.77	\$	6.77	\$	-	0 %
Base Charge							
Water Meter Size							
5/8"	\$	26.98	\$	25.15		1.83	7.28 %
3/4"		26.98		25.15		1.83	7.28 %
1"		67.45		62.87		4.58	7.28 %
1-1/2"		134.90		125.75		9.15	7.28 %
2"		215.84		201.20		14.64	7.28 %
3"		404.70		377.25		27.45	7.28 %
4"		674.50		628.74		45.76	7.28 %
6"		1,349.00		1,257.50		91.50	7.28 %
8"		2,158.40		2,012.25		146.15	7.26 %

#### **General Trends and Significant Events**

The Authority's service area within the City can be referred to as mature. The City is over 250 years old and for the most part is built-out. While there are several tracts of undeveloped land, the flows from these parcels, when developed, will not meaningfully increase the Authority's wastewater treatment charge revenue. This is particularly true given the trend for water conservation and sustainability efforts within the community.

The number of City accounts increased by 171 or 0.7% in FY2017 when compared to FY2016. The current number of accounts, 26,611, represents a 2.77% increase for the 10-year period beginning FY 2008 to present.

Previously, the number of the accounts increased in FY2016 by 107, a 0.4% increase over FY 2015.

#### **Financial Condition**

The Authority's financial condition remained strong at fiscal year-end with adequate liquid assets and a reasonable level of unrestricted net position. Current operating, maintenance and capital plans will ensure our ability to meet future water quality requirements.

Total assets and deferred outflows of resources grew \$10.60 million or 1.3%, and \$18.82 million or 2.4%, during FY2017 and FY2016, respectively. Net Position increased by \$12.34 million in FY2017, with a substantial portion of the change resulting in an increase in unrestricted assets. Additional information on the Authority's unrestricted assets can be found in Notes 2 and 3 of the notes to financial statements.

In FY2016, Net Position increased by \$36.04 million, with a substantial portion of the change resulting in an increase in net investment in capital assets.

#### **Results of Operations**

Operating revenues: The Authority's revenues from operations fall into two main categories: 1) wastewater treatment and base charges to customers in the City which are based on metered water consumption and 2) County operating expense charges for wastewater treatment for its share of operating expenses based upon metered flow to the plant.

<u>Capital contributions:</u> The County pays 60% of the cost of capital improvements to our water resource recovery facility based upon the Service Agreement with the Authority. These payments are recorded as non-operating revenues in the statements of revenues, expenses, and changes in net position.

Capital contributions also include capital grants provided to the Authority by the Commonwealth of Virginia, Department of Environmental Quality.

Total capital contributions were \$9.12 million and \$26.67 million in FY2017 and FY2016, respectively including \$.37 million and \$1.04 million from VDEQ.

#### Expenses:

FY2017-FY2016 comparison: Total operating expenses for FY2017, excluding depreciation and amortization, decreased by \$100,249 or 0.4% relative to FY2016. Among operating expenses, personnel services costs including salaries, retirement and benefits increased \$796,090 or 7.31%. Adjustments related to GASB 68 is the primary reason personnel services costs increased in FY2017; such costs were reduced due to GASB 68 by \$471,486 in FY2017 as compared to a greater reduction in FY2016 of \$721,406. Customer billing expense remained relatively flat. Decreases in Arlington sewage disposal and chemical expenses offset increases in personnel, utilities, and maintenance expenses. General, administrative, customer service and other expenses were significantly less than prior years.

#### **Results of Operations (Continued)**

2016-2015 comparison: Total operating expenses for FY2016, excluding depreciation and amortization, decreased by \$2,353,672 or 9.4% relative to FY 2015. Personnel service costs that include salaries, retirement and benefit expense decreased \$995,035 or 8.35%. Adjustments related to GASB 68 is the primary reason personnel service cost decreased in FY2016; such costs were reduced by a net \$721,406 relative to FY2015. Customer billing expense remained relatively flat. Decreases in utility and chemical expenses offset increases in sludge disposal expense. Arlington sewage disposal expenses were significantly less than prior years.

#### Capital Assets

The Authority maintains investments in a broad range of capital assets, which includes land, buildings, sanitary sewer intercepting lines and force mains, pumping stations, a water resource recovery facility, machinery and equipment, computers and vehicles. The Authority also owns capacity rights at the Arlington County Water Pollution Control Facility (Arlington). By a service agreement with Arlington County the City and the Authority, the Authority pays 8.5% of the cost of capital improvements to Arlington County. Additional information on the Authority's capital assets can be found in notes 1 and 4 of the notes to financial statements.

The Authority maintains its equipment annually on a prioritized basis through a committed improvements, renewals and replacements fund. Under the Service Agreement, the County invests a percentage of total facility assets into this fund for adequate reinvestment to insure continuing compliance with regulations.

The Authority finances its capital assets through rates and charges, the County capital contributions, interim financing instruments, long term debt and, when available, capital grants.

#### Long Term Debt

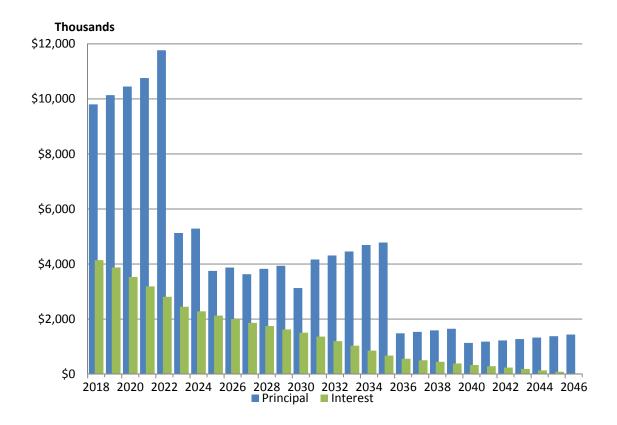
The Authority had \$126.3 million in long-term debt outstanding at September 30, 2017 including \$9.9 million considered short-term. Principal payments totaled \$9.5 million during FY2017. During FY2017, the Authority issued new bonds totaling \$23 million. Long term debt increased during the fiscal year by \$14.2 million.

The Authority had \$111.76 million in long-term debt outstanding at September 30, 2016 including \$9.6 million considered short-term. Principal payments totaled \$8.9 million. Long term debt decreased during the fiscal year by \$9.0 million. The Authority did not issue a new bond in FY2016.

The Authority's financial strength, ability to pay current debt service (principal and interest), and future borrowing capability is demonstrated, in part, by its debt service coverage which is currently a strong 1.97x. Our Indenture requires the Authority to establish, fix, charge and collect rates, fees and other charges for operating and maintenance so that in each fiscal year net revenues are not less than 1.1x total debt service for the fiscal year. The Board's financial policies require the Authority to maintain a minimum debt service coverage of 1.50x total debt service for the fiscal year.

#### **Results of Operations, (Continued)**

The graph below presents principal and interest payments due each year until the revenue bonds mature in 2046.



#### **Results of Operations (Continued)**

The following table calculates the performance relative to the Rate Covenant for FY2017 and FY2016: *(in millions)* 

		2017	2016		% Change		
Unrestricted Operating Revenue	\$	49.10	\$	47.22	3.98	%	
Total Operating Expenses							
(Less Depreciation and Replacements)		22.57		22.70	(0.57)	%	
Net Revenue	\$	26.53	\$	24.52	8.19	%	
Annual Debt Service	\$	13.44	\$	13.12	2.40	%	
Revenue Covenant <sup>1</sup>		1.97		1.87	5.65	%	

 $<sup>^{1} \</sup>ge 1.10x$  per Indenture and 1.50x per Board Policy

The following table calculates the performance relative to the Rate Covenant for FY2016 and FY2015: (in millions)

		2016	 2015	% Change		
Unrestricted Operating Revenue	\$	47.22	\$ 47.80	(1.21)	%	
Total Operating Expenses						
(Less Depreciation and Replacements)		22.70	 25.10	(9.57)	%	
Net Revenue	\$	24.52	\$ 22.70	8.03	%	
Annual Debt Service	\$	13.12	\$ 12.06	8.76	%	
Revenue Covenant <sup>1</sup>		1.87	1.88	(0.62)	%	

<sup>&</sup>lt;sup>1</sup> ≥ 1.10x per Indenture and 1.50x per Board Policy

Additional information on the Authority's debt can be found in Notes 5 and 8 to the Financial Statements.

#### **Budget Information**

The Authority's budget is a modified accrual basis document with revenues established based upon available resources. The Authority bills customers monthly for wastewater treatment based on water consumption at rates approved by its Board.

The Authority's budget includes sources/revenues for new debt issues that for accounting purposes are not shown as revenues but are included on the statement of net position to comply with GAAP. Likewise, capital project spending and debt service principal payments are treated as capital outlays (expenses) for budget purposes but are included as assets and liabilities in the statement of net position for GAAP compliance purposes. The Authority's budget expense classifications are in several cases different than the financial statement presentation as is the case for personnel services, business support and professional services.

# **Budget Information, (Continued)**

Certain expenses for construction have been estimated net of contractual retainage not paid by contract terms until projects are complete. In some cases, AlexRenew has issued debt for its share of construction cost (net of County share) through the Virginia Resources Authority (VRA).

The following Statement of Consolidated Enterprise Budget is presented to compare FY2017 operations to budget estimate.

#### **CONDENSED ENTERPRISE BUDGET FY 2017**

	FY 2017	FY 2017 Final		
	Budgetary Basis Actual	rınaı Budget	Variance	Variance %
Revenues and Other Sources:	Dusis Hetuui	Duager	, ur unice	variance /o
Wastewater Treatment charges	\$ 39,521,782	\$ 38,632,000	\$ 889,782	2.30%
Fairfax County:	, ,		•	
Operating	9,576,560	10,999,385	(1,422,825)	-12.94%
IR & R	2,923,764	2,923,764	-	0.00%
Total	\$ 52,022,106	\$ 52,555,149	\$ (533,043)	-1.01%
Expenditures:				
Organizational Competency	12,234,751	14,097,700	(1,862,949)	-13.21%
Operational Excellence	4,803,354	5,436,850	(633,496)	-11.65%
New Ideas & Innovations	624,163	589,500	34,663	5.88%
Community Benefit	1,288,920	1,697,000	(408,080)	-24.05%
Revenue Stewardship	1,627,055	1,988,150	(361,095)	-18.16%
Watershed Partnerships	2,155,415	2,826,000	(670,585)	-23.73%
Alex only Improvement, Renewal & Replacement	45,715	325,000	(279,285)	-85.93%
Joint Improvement, Renewal & Replacement	3,296,798	4,000,000	(703,202)	-17.58%
Alex only Capital Projects	1,897,432	3,091,000	(1,193,568)	-38.61%
Joint Capital Projects	10,260,911	19,921,000	(9,660,089)	-48.49%
Total	\$ 38,234,514	\$ 53,972,200	\$(15,737,686)	-29.16%
Nonoperating Revenues (Expenditures):				
Investment income	296,581	210,000	86,581	41.23%
Debt Principal Payments	(9,498,004)	(9,498,003)	(1)	0.00%
Debt Interest expense	(4,077,418)	(3,994,965)	(82,453)	2.06%
Proceeds from Debt	13,000,000	10,000,000	3,000,000	30.00%
Fairfax County contributions	5,821,580	11,775,000	(5,953,420)	-50.56%
Total	\$ 5,542,739	\$ 8,492,032	\$ (2,949,293)	-34.73%
Excess of Revenues	\$ 19,330,331	\$ 7,074,981	12,255,350	173.22%

# Alexandria Renew Enterprises Management's Discussion and Analysis (Continued)

# **Final Comments**

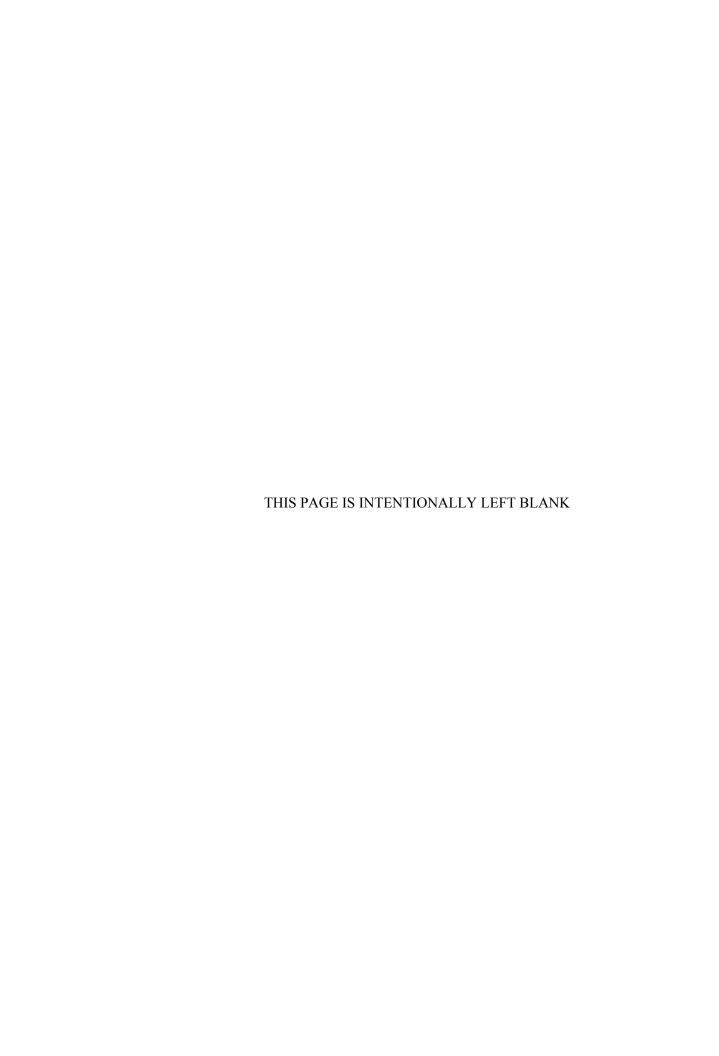
FY2017 continued a trend of strong financial performance by the Authority and its ability to maintain adequate liquidly and financial flexibility, ensure appropriate reserves are maintained, and meet its capital spending requirements.

# **Contacting the Authority's Financial Management:**

This financial report is designed to provide our citizens, customers, and creditors with a general overview of the Authority's financial position and to demonstrate the Authority's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Alexandria Renew Enterprises, 1800 Limerick St. Alexandria, Virginia 22314, call 703.549.3381, or visit us on the web at www.alexrenew.com.

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#### ALEXANDRIA RENEW ENTERPRISES STATEMENTS OF NET POSITION September 30, 2017 and 2016

	2017	2016
ASSETS		
Current assets		
Cash and cash equivalents (Note 2): Unrestricted	\$ 14,229,375	\$ 12,768,179
Restricted	25,152,321	9,598,065
Accounts receivable (Note 3)	4,222,199	4,241,076
Due from other governments (Note 3)	934,505	5,503,984
Prepaid expenses	550,070	576,210
Inventory	255,022	247,249
Investments (Note 2):		
Unrestricted	18,737,275	18,314,498
Restricted	7,911,562	7,268,275
Total current assets	71,992,329	58,517,536
Non-current assets		
Capital assets, net of depreciation and amortization (Note 4)	747,728,427	751,420,427
Total non-current assets	747,728,427	751,420,427
DEFERRED OUTFLOWS OF RESOURCES		
Pension related deferred outflows (Note 6)	1,952,988	1,088,386
Deferred charge on refunding	1,056,762	1,104,797
Total deferred outflows of resources	3,009,750	2,193,183
Total assets and deferred outflows of resources	\$ 822,730,506	\$812,131,146
LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION Current liabilities		
Accounts payable and accrued expenses (Note 3)	\$ 5,277,654	\$ 13,211,420
Due to City of Alexandria	764,646	628,888
Due to other governments (Note 3)	515,088	
Accrued paid time off	860,409	744,964
Accrued interest payable	1,043,190	676,781
Current maturities of long-term debt (Note 5) Line of credit (Note 8)	9,939,844	9,578,981 10,019,000
Total current liabilities	18,400,831	34,860,034
Long-term liabilities		
Accrued paid time off, less current portion	286,803	248,321
Other post employment benefits (Note 7)	1,950,513	1,868,988
Net pension liability (Note 6)	8,399,790	7,026,079
Long-term debt (Note 5)	116,390,671	102,185,702
Total long-term liabilities	127,027,777	111,329,090
Total liabilities	145,428,608	146,189,124
DEFERRED INFLOWS OF RESOURCES Pension related deferred inflows (Note 6)	881,910	1,862,505
Total liabilities and deferred inflows of resources	146,310,518	148,051,629
NET POSITION		
Net investment in capital assets	622,454,674	630,741,541
Restricted:		
Operating	2,571,829	2,140,763
Parity debt service Improvement, renewal & replacement	1,020,493 12,145,083	909,656
Capital projects	13,967,668	10,602,514
Unrestricted	24,260,241	19,685,043
Total net position	676,419,988	664,079,517
Total liabilities, deferred inflows of resources,		
and net position	\$ 822,730,506	\$812,131,146

# ALEXANDRIA RENEW ENTERPRISES STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION Years Ended September 30, 2017 and 2016

	2017	2016
OPERATING REVENUES		
Wastewater treatment fees	\$ 39,394,596	\$ 38,076,182
Fairfax County wastewater fees	9,576,560	9,062,890
Miscellaneous	127,186	81,727
Total operating revenues	49,098,342	47,220,799
OPERATING EXPENSES		
Personnel services	11,681,207	10,885,117
Utilities	2,732,412	2,621,156
Chemicals	1,086,932	1,386,576
Operations maintenance	976,297	705,198
Arlington sewage disposal	731,483	1,354,018
Sludge disposal	975,936	942,567
Depreciation and amortization (Note 4)	18,608,157	11,737,374
Repairs and replacements, sewage disposal systems	98,057	70,750
General, administrative, customer service, and other	4,386,136	4,803,327
Total operating expenses	41,276,617	34,506,083
Operating income	7,821,725	12,714,716
NONOPERATING REVENUES (EXPENSES)		
Investment income	296,581	453,508
Interest on debt	(4,077,682)	(2,986,834)
Loss on disposed capital assets	(819,299)	(812,090)
Total non-operating revenues (expenses)	(4,600,400)	(3,345,416)
Change in net position before capital contributions	3,221,325	9,369,300
CAPITAL CONTRIBUTIONS	9,119,146	26,671,809
Change in net position	12,340,471	36,041,109
NET POSITION, BEGINNING OF YEAR	664,079,517	628,038,408
NET POSITION, END OF YEAR	\$ 676,419,988	\$ 664,079,517

# ALEXANDRIA RENEW ENTERPRISES STATEMENTS OF CASH FLOWS

# Years Ended September 30, 2017 and 2016

	2017	2016
OPERATING ACTIVITIES		
Cash received from customers	\$ 38,732,154	\$ 38,910,568
Cash received from Fairfax County for operations	9,491,975	10,016,093
Cash received from other sources	127,186	81,727
Payments to suppliers for goods and services	(10,488,570)	(12,835,982)
Payments to employees for services	(11,860,325)	(12,002,168)
Net cash provided by operations	26,002,420	24,170,238
CASH FLOWS FROM CAPITAL AND RELATED		
FINANCING ACTIVITIES		
Acquisition/construction of capital assets	(21,919,997)	(54,085,629)
Capital contributions from Fairfax County	12,503,158	28,508,564
Proceeds from state grants	469,025	4,159,534
Proceeds from sale of property	13,713	8,704
Net proceeds from debt issuance	24,173,247	-
Payments on line of credit	(10,019,000)	-
Principal payments on debt	(9,498,004)	(8,934,576)
Interest paid on borrowing	(3,939,627)	(4,187,596)
Net cash used in capital and related financing activities	(8,217,485)	(34,530,999)
CASH FLOWS FROM INVESTING ACTIVITES		
Proceeds from sales and maturities of investments	44,474,963	31,688,785
Purchase of investments	(45,541,027)	(31,229,501)
Interest received on investments	296,581	453,508
Net cash provided by (used in) investing activities	(769,483)	912,792
Net increase (decrease) in cash and cash equivalents	17,015,452	(9,447,969)
CASH AND CASH EQUIVALENTS		
Beginning of year	22,366,244	31,814,213
End of year	\$ 39,381,696	\$ 22,366,244
RECONCILIATION TO STATEMENT OF NET POSITION		
Cash and cash equivalents - unrestricted	\$ 14,229,375	\$ 12,768,179
Cash and cash equivalents - restricted	25,152,321	9,598,065
Total cash and cash equivalents	\$ 39,381,696	\$ 22,366,244

The Notes to Financial Statements are an integral part of these statements

# ALEXANDRIA RENEW ENTERPRISES STATEMENTS OF CASH FLOWS (continued) Years Ended September 30, 2017 and 2016

	2017	2016
RECONCILIATION OF OPERATING INCOME TO NET CASH		
PROVIDED BY OPERATING ACTIVITIES		
Operating income	\$ 7,821,725	\$ 12,714,716
Adjustments to reconcile operating income to net cash		
provided by operating activities:		
Depreciation and amortization	18,608,157	11,737,374
Pension expense, net of of employer contributions	(471,486)	(721,406)
Changes in assets and liabilities		
(Increase) decrease in:		
Accounts receivable	18,877	589,731
Due from other governments	(585,027)	1,018,710
Prepaid expenses	26,140	(39,878)
Inventory	(7,773)	1,755
(Decrease) increase in:		
Accounts payable and accrued expenses	(294,491)	(746,772)
Due to City of Alexandria	135,758	(8,851)
Due to other governments	515,088	-
Accrued paid time off	153,927	70,017
Other post employment benefits	81,525	(445,158)
Net cash provided by operating activities	\$ 26,002,420	\$ 24,170,238
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Carrying value of disposed capital assets	\$ 833,012	\$ 820,794
Capital asset purchases included in accounts payable at year end	\$ 3,410,283	\$ 11,049,558
Capital grants reimbursable to Fairfax County included in both		
other receivables and accounts payable at year end	\$ 560,703	\$ 617,837
Capitalized interest	\$ 166,978	\$ 865,047

# ALEXANDRIA RENEW ENTERPRISES STATEMENTS OF FIDUCIARY NET POSITION

# September 30, 2017 and 2016 OPEB Trust Fund

	2017	2016
ASSETS	 	
Assets held in trust, at fair value Investment in pooled funds	\$ 773,591	\$ 661,873
NET POSITION Restricted - held in trust for OPEB	\$ 773,591	\$ 661,873

# STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION Years Ended September 30, 2017 and 2016 OPEB Trust Fund

	2017		2016	
ADDITIONS	 			
Contributions from employer	\$ 72,822	\$	69,125	
Contributions from employees	83,269		98,541	
Investment Income:				
Net increase in fair value of investments	80,776		50,571	
Less investment expenses	 (2,059)		(1,791)	
Net investment income (loss)	78,717		48,780	
Total additions	 234,808		216,446	
DEDUCTIONS				
Benefits paid to participants	123,090		105,666	
Total deductions	123,090		105,666	
Change in net position	111,718		110,780	
Total net position - beginning of year	 661,873		551,093	
Total net position - end of year	\$ 773,591	\$	661,873	

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 1. Description of Entity and Significant Accounting Policies

# **Description of Entity**

On May 15, 2012, the Board amended its bylaws to adopt the name of "Alexandria Renew Enterprises" as the official trade name of the Alexandria Sanitation Authority.

The Authority is a special governmental unit created by the City Council in 1952 for the purpose of constructing, operating and maintaining a wastewater treatment system for the City. The Authority is chartered by the State Corporation Commission and is an independent public body. The Authority is governed by a five member Board who serve staggered terms and are appointed by the City Council.

Although the Board is appointed by City Council, the Authority is not part of the City's reporting entity and not considered a component unit under GASB Statement No. 14.

No component units are included in the Authority's financial statements.

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

#### **Basis of Presentation and Accounting**

The Authority's financial statements are presented on the accrual basis in accordance with accounting principles generally accepted in the United States of America as applicable to the enterprise fund of governmental units.

The primary activities of the Authority are accounted for within a single proprietary (enterprise) fund. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

The accounting and financial reporting treatment applied to the Authority is determined by its measurement focus. The transactions of the Authority are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the statement of net position. Net position (i.e., total assets plus deferred outflows, net of total liabilities plus deferred inflows) is segregated into net investment in capital assets, restricted, and unrestricted components.

The Authority also has a fiduciary fund for assets held by the Authority in a trustee capacity for its employees. The Authority's Other Post-Employment Benefit (OPEB) trust fund accounts for the receipt and disbursement of assets held in trust for the Authority's OPEB plan.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 1. Description of Entity and Significant Accounting Policies (Continued)

# **Revenues and Expenses**

Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Authority. Operating revenues consist primarily of charges for services. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities. Contributions from the County under the Service Agreement discussed in Note 4 are recorded as capital contributions.

In accordance with the Service Agreement with the County, the Authority recognizes as revenue the County's proportionate share of current operating expenses.

#### Cash and Cash Equivalents

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

#### **Inventory**

Inventory, consisting of items held for consumption, are valued at cost using the first-in, first-out method.

#### **Financial Policy**

In FY2010 the Board revised its financial policy to increase its restricted cash reserves. The Bond Master Trust Indenture requires the Authority keep 60 days of operating expenses in reserve and the Authority has appropriately restricted these amounts. The Authority's internal policy requires its restricted cash reserves to be maintained at 120 days of operating expenses at year end; however, only the amount required by the Indenture are shown as restricted in the financial statements.

#### **Investment Policy**

In accordance with the *Code of Virginia* and other applicable law, including regulations, the Authority's investment policy (Policy) permits investments in U.S. Treasury Securities, U.S. agency securities, municipal obligations, prime quality commercial paper, banker's acceptances with domestic banks, corporate notes, negotiable certificates of deposit of domestic banks, money market funds registered under the Federal Investment act of 1940, repurchase agreements collateralized by U. S. Treasury and Federal Agency obligations, and the State Treasurer's Local Government Investment Pool (the Virginia LGIP).

Pursuant to Sec. 2.1-234.7 of the *Code of Virginia*, the Treasury Board of the Commonwealth sponsors the LGIP and has delegated certain functions to the State Treasurer. The LGIP reports to the Treasury Board at their regularly scheduled monthly meetings and the fair value of the position in LGIP is the same as the value of the pool shares (i.e., the LGIP maintains a stable net asset value of \$1 per share).

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 1. Description of Entity and Significant Accounting Policies (Continued)

# **Investment Policy (Continued)**

The Policy limits investment maturities to a maximum of five years for any investment, unless the Board approves an exception in writing. The investment policy establishes the maximum percentage of the portfolio permitted in each of the following instruments:

U.S. Treasury Obligations	100%, no limitation
Federal Agency Obligations	100%, 35% issuer limit
Municipal Obligations	10%, 3% issuer limit
Commercial Paper	25%, 3% issuer limit
Bankers' Acceptance	25%, 3% issuer limit
Corporate Notes	10%, 3% issuer limit
Negotiable Certificates of Deposit	10%, 50% issuer limit
Money Market Mutual Funds	100%, 50% issuer limit
Repurchase Agreements	35%, 35% issuer limit
Local Government Investment Pool (LGIP)	100%, no limitation

#### **Capital Assets**

Purchased or constructed property, plant and equipment with a cost greater than \$5,000 and an estimated useful life of 3 years or more is capitalized and recorded at historical cost. Interest related to costs and major improvements, renewals and replacements is capitalized as a cost of the project. Depreciation is computed on the straight-line basis over the estimated useful life. The estimated useful lives are as follows:

Plant and related infrastructure	67 years
Buildings and improvements	10-30 years
Furniture and equipment	3-15 years
Vehicles	5 years
Computers	3 years

Capital assets also include intangible assets such as purchased capacity rights for the Arlington sewer treatment plant upgrade and expansion. Intangible assets are amortized over 40 years.

#### **Accrued Paid Time-Off Benefit**

The Authority's paid time-off benefit (PTO) policy permits employees to accumulate a limited amount of earned but unused PTO benefits, which will be paid to employees upon separation from service. The accrued PTO Benefit is included in the statement of net position as a liability. The accrued PTO benefit payable is included in the following tables:

Balance		Balance		Current
9/30/16	Increases	Decreases	9/30/17	<b>Portion</b>
\$ 923,268	\$ 1,289,631	\$ (1,065,687)	\$ 1,147,212	\$ 860,409

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 1. Description of Entity and Significant Accounting Policies (Continued)

# **Accrued Paid Time-Off Benefit (Continued)**

<b>Balance</b>		Balance		Current	
9/30/15	Increases	<b>Decreases</b> 9/30/16		<b>Portion</b>	
\$ 923,268	\$ 1,357,969	\$ (1,287,952)	\$ 923,268	\$ 744,964	

#### **Allocation of Expenses**

For purposes of the statement of revenues, expenses and changes in net position, payroll taxes and fringe benefits were allocated to operations and administration based on direct salaries.

#### **Net Position**

Net position is the difference between assets, deferred outflows of resources, 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. Net investment in capital assets excludes unspent debt proceeds. Net position is reported as restricted when there are limitations imposed on its use either through the enabling legislation adopted by the Authority or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments. Unrestricted net position represents the remaining net position not included as the previous two categories.

When both restricted and unrestricted net position are available for use, it is the Authority's policy to use restricted net position first, then unrestricted as needed.

#### **Estimates**

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### Fair Value Measurement

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

#### Reclassifications

Certain amounts in the prior year financial statements have been reclassified in order to conform to the presentation of the current-year financial statements.

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 1. Description of Entity and Significant Accounting Policies (Continued)

#### **Pensions**

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

#### **Deferred Outflows/Inflows of Resources**

#### **Deferred Outflows**

In addition to assets, the statements which present financial position report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Authority has three items that qualify for reporting in this category. The first item consists of contributions subsequent to the measurement date for pensions; this will be applied to the net pension liability in the next fiscal year. The second item is the net difference between projected and actual earnings on pension plan investments. This difference will be recognized in pension expense over a closed five year period. The third item is the deferred loss on refunding, which 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.

#### **Deferred Inflows**

In addition to liabilities, the statements which present financial position report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to future periods and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has one type of item that qualifies for reporting under this category. This item represents differences between expected and actual experience in the pension plan. These differences will be recognized in pension expense over a closed five year period.

# 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 all excess deposits. Accordingly, all deposits are considered fully collateralized.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 2. Deposits and Investments (Continued)

#### Investments

Statutes authorize the Authority to invest in obligations of the United States or agencies thereof; obligations of the Commonwealth of Virginia or political subdivisions thereof; obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, "prime quality" commercial paper and certain corporate notes, banker's acceptances, repurchase agreements, the State Treasurer's Local Government Investment Pool (LGIP), a 2a-7 like pool, and the Commonwealth of Virginia State Non-Arbitrage Program (SNAP), a pooled investment fund. Both the LGIP and SNAP are overseen by the Treasurer of Virginia and the State Treasury Board. The fair value of the Authority's position in the pools is the same as the value of the pool shares, which are reported at amortized cost.

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. As of September 30, 2017, the Authority's investments in federal agency bonds and notes, U.S. Treasury bonds and notes and corporate bonds and notes were valued using Level 2 inputs.

#### Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. At September 30, 2017 and 2016, none of the Authority's investments are exposed to custodial credit risk.

# Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. The Authority's portfolio management approach is active, allowing for periodic restructuring of the investment portfolio to take advantage of current and anticipated interest rate moves. The Authority minimizes its exposure to interest rate risk by having an average investment period of 2.5 years and a limit of less than 5 years.

The Authority's investments as of September 30, 2017 consisted of the following:

Investment Type	 Fair Value	S&P Credit Rating	Weighted Average Maturity *
Federal agency bonds and notes	\$ 9,368,790	AA+	1.87
U.S. Treasury bonds and notes	8,075,919	AA+	3.28
Supra-National agency notes	3,441,717	AAA	2.62
Corporate bonds and notes	1,906,178	A-1- to AA+	0.66
LGIP	118,819	AAAm	N/A
Total investments	\$ 22,991,423		

<sup>\*</sup>Average maturity in years

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 2. Deposits and Investments (Continued)

# Interest Rate Risk (Continued)

Reconciliation of deposits and investments to Exhibit 1:

Amounts per disclosures abo	ve:		Amounts per Exhibit 1:	
Cash and cash equivalents	\$	39,381,696	Cash and cash equivalents	\$ 39,381,696
Long-term certificates of deposit		3,737,414	Investments	 26,648,837
Total deposits		43,119,110	Total	\$ 66,030,533
Total investments		22,911,423		
Total	\$	66,030,533		

#### Restricted assets

Certain resources of the Authority are classified as restricted assets on the statements of net position. These funds are maintained in separate accounts and their use is limited by applicable bond covenants and agreements.

# Note 3. Accounts Receivable, Due to/from Other Governments, and Payables

Receivables, due from other governments and payables were composed of the following:

2017			2016	
·	_			
\$	3,688,513	\$	4,366,172	
	1,461,375		1,202,501	
	10,080		9,403	
	(937,769)		(1,337,000)	
\$	4,222,199	\$	4,241,076	
\$	(515,088)	\$	4,459,610	
	934,505		1,029,728	
			14,646	
\$	419,417	\$	5,503,984	
\$	4,898,033	\$	12,043,866	
	1,947		819,024	
	377,674		348,530	
\$	5,277,654	\$	13,211,420	
	\$ \$	\$ 3,688,513 1,461,375 10,080 (937,769) \$ 4,222,199 \$ (515,088) 934,505 - \$ 419,417 \$ 4,898,033 1,947 377,674	\$ 3,688,513 \$ 1,461,375 10,080 (937,769) \$ \$ 4,222,199 \$ \$ \$ \$ 419,417 \$ \$ \$ 4,898,033 \$ 1,947 377,674	

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 4. Capital Assets

Changes in capital assets for FY2017 were as follows:

		Balance,					Balance,
		Beginning		Additions	Reductions	_	Ending
Capital assets, not being depreciated:							
Land and improvements	\$	40,172,404	\$	-	\$ -	\$	40,172,404
Construction in progress	_	14,309,281	_	6,543,557	(87,132)	_	20,765,706
Total capital assets, not							
being depreciated	_	54,481,685	_	6,543,557	(87,132)	_	60,938,110
Capital assets, being depreciated							
Plant and infrastructure		813,480,777		7,213,435	(948,461)		819,745,751
Plant equipment and office equipment		24,204,509	_	1,788,737	(232,348)		25,760,898
Total capital assets, being depreciated		837,685,286	_	9,002,172	(1,180,809)		845,506,649
Less accumulated depreciation for:							
Plant and infrastructure		(165,157,561)		(15,217,524)	243,368		(180,131,717)
Plant equipment and office equipment		(8,191,215)	_	(2,393,215)	191,561		(10,392,869)
	_	(173,348,776)	_	(17,610,739)	434,929		(190,524,586)
Total capital assets being depreciated, net	_	664,336,510	_	(8,608,567)	(745,880)		654,982,063
Capital assets, being amortized Capacity rights		20 625 722		202 440			20 820 172
capacity rights	_	39,625,733	_	203,440	<del>-</del>		39,829,173
Less accumulated amortization for:							
Capacity rights	_	(7,023,501)	_	(997,418)			(8,020,919)
Total capital assets being amortized, net	_	32,602,232	_	(793,978)			31,808,254
Total capital assets	\$	751,420,427	\$	(2,858,988)	\$ (833,012)	\$	747,728,427

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 4. Capital Assets (Continued)

Changes in capital assets for FY2016 were as follows:

		Balance, Beginning		Additions	Reductions		Balance, Ending
Capital assets, not being depreciated:						_	
Land and improvements	\$	40,160,385	\$	12,019	\$ -	\$	40,172,404
Construction in progress	_	205,452,485	_	44,809,861	(235,953,065)		14,309,281
Total capital assets, not							
being depreciated	_	245,612,870	_	44,821,880	(235,953,065)		54,481,685
Capital assets, being depreciated							
Plant and infrastructure		580,168,790		234,266,743	(954,756)		813,480,777
Plant equipment and office equipment		20,228,938		4,159,215	(183,644)		24,204,509
Total capital assets, being depreciated		600,397,728		238,425,958	(1,138,400)		837,685,286
Total capital assets, semig depreciated	_	000,371,720		230,423,730	(1,130,400)		037,003,200
Less accumulated depreciation for:							
Plant and infrastructure		(156,610,503)		(8,693,585)	146,527		(165,157,561)
Plant equipment and office equipment		(6,317,864)		(2,012,907)	139,556		(8,191,215)
	_	(162,928,367)		(10,706,492)	286,083	_	(173,348,776)
Total capital assets being depreciated, net	_	437,469,361		227,719,466	(852,317)		664,336,510
Capital assets, being amortized							
Capacity rights	_	39,598,278		27,455			39,625,733
Less accumulated amortization for:							
Capacity rights	_	(6,024,141)		(999,360)			(7,023,501)
Total capital assets being amortized, net	_	33,574,137		(971,905)			32,602,232
Total capital assets	\$	716,656,368	\$	271,569,441	\$ (236,805,382)	\$	751,420,427

# County of Arlington, Virginia Purchased Capacity Rights

The Authority has entered into a service agreement with the County of Arlington, Virginia (Arlington), in which the Authority purchases capacity rights to use Arlington's wastewater treatment plant. These costs are capitalized as an intangible asset. Arlington holds title to the plant.

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 4. Capital Assets (Continued)

# County of Fairfax, Virginia Capacity Rights

Under the terms of the Service Agreement with the County, the County reimburses the Authority for its share of capital costs related to joint-use facilities, which ranges between 32% and 60%. In exchange for these capital contributions as presented on the statement of revenues, expenses and changes in net position, the Authority is required to recognize and preserve an equivalent share of the capacity rights of the related facilities for the County's use. Currently, the County has a capacity entitlement of 32.4 MGD, which is 60% of the facility's total capacity of 54 MGD. The County is required to share in operation and maintenance costs related to the joint-use facilitates.

#### Note 5. Long-Term Debt

On March 15, 1999, the Authority executed a new Master Indenture of Trust for the purpose of issuing sewer revenue bonds from time to time. These bonds will provide funds to pay the cost, or any part of the cost, of the Sewage Disposal System additions or improvements or to refund indebtedness and obligations previously incurred for such purposes. The Authority has issued and sold sewer revenue bonds to the Virginia Water Facilities Revolving Fund, acting by and through the Virginia Resources Authority (VRA). The Master Indenture of Trust constitutes a contract among the Authority, the Trustee and VRA governing bond issuance.

Sewer bonds consist of the following:

	2017	2016
Sewer revenue bond, Series 1998A, \$9,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$334,540, including principal and interest at 4% due through March 2019.	\$ 928,427	\$ 1,529,546
Sewer revenue bond, Series 2000A, \$25,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$889,850, including principal and interest at 3.5% due through March 2020.	4,224,877	5,814,849
Sewer revenue bond, Series 2000B, \$60,400,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; interest only payments due March 2002 and March 2005; semi-annual installments of approximately \$2,405,000, including principal and interest at 3.85% due through September 2022.	26,809,771	30,249,544
Sewer revenue bond, Series 2004, \$22,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$742,125, including principal and interest beginning March 2006 at 3.10% due through September 2024.	9,275,565	10,445,014

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 5. Long-Term Debt (Continued)

	2017	2016
Sewer revenue bond, Series 2006A, \$3,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$105,060, including principal and interest beginning in March 2006 at 3.10% due through September 2024.	\$ 1,313,105	\$ 1,478,659
Sewer revenue bond, Series 2006B, \$12,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$412,313 at 3.10% due through March 2027.	6,631,946	7,248,211
Sewer revenue bond, Series 2008B, \$9,265,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$181,569 to \$595,081, including principal and interest, beginning October 2009 at an average interest cost of 5.37% due through October 2018.	420,000	615,000
Sewer revenue bond, Series 2009, \$15,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$536,250, including principal and interest, beginning March 2011 at 3.55% due through September 2030.	10,123,079	10,838,972
Sewer revenue bond, Series 2011, \$8,115,767; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$260,604, including principal and interest, beginning March 2014 at 2.35% due through September 2033.	6,912,596	7,265,134
Sewer revenue bond, Series 2014A, \$12,500,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$392,261, including principal and interest, beginning March 2016 at 2.1% due through September 2035.	11,708,717	12,238,989

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 5. Long-Term Debt (Continued)

	2017	2016
Sewer revenue bond, Series 2014B, \$2,500,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$78,452, including principal and interest, beginning March 2016 at 2.1% due through September 2035.	2,287,879	2,395,048
Sewer revenue bond, Series 2014C, \$19,515,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$399,833 to \$3,203,294, including principal and interest, beginning April 2015 at 3.63%, due through April 2039.	19,485,000	19,500,000
Sewer revenue bond, Series 2017A, \$23,000,000; secured equally and ratably with other bond issues by pledge of revenues of the Authority; semi-annual installments of \$395,774 to \$1,468,613, including principal and interest, beginning October 2017 at 3.60%, due through October		
2045.	23,000,000	
	123,120,962	109,618,966
Plus unamortized premiums and discounts, net	3,209,553	2,145,717
	\$ 126,330,515	\$ 111,764,683

The annual requirements to amortize bond principal and related interest are as follows:

Fiscal Year	Principal	Interest	Total
2018	\$ 9,802,825	\$ 4,143,829	\$ 13,964,654
2019	10,136,648	3,874,674	14,011,322
2020	10,450,922	3,528,674	13,979,596
2021	10,760,878	3,189,247	13,950,125
2022	11,768,354	2,812,293	14,580,647
2023-2027	21,672,902	10,723,580	32,396,482
2028-2032	19,371,863	7,444,447	26,816,310
2033-2037	16,951,570	3,625,105	20,576,675
2038-2040	6,780,000	1,699,008	8,479,008
2043-2046	5,425,000	442,115	5,867,115
Total	\$ 123,120,962	\$ 41,482,972	\$ 164,603,934

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 5. Long-Term Debt, (Continued)

The changes in debt for the fiscal years ended September 30, 2017 and 2016 are as follows:

<u>2017</u>	Balance, Beginning	Additions	Reductions	Balance, Ending	Due Within One Year
Sewer revenue bonds Plus deferred amounts:	, ,	\$ 23,000,000	\$ (9,498,004)	\$123,120,962	\$ 9,802,825
Net premium	2,145,717	1,173,247	(109,411)	3,209,553	137,019
Total	\$111,764,683	\$ 24,173,247	\$ (9,607,415)	\$126,330,515	\$ 9,939,844
2016					
	Balance, Beginning	Additions	Reductions	Balance, Ending	Due Within One Year
Sewer revenue bonds Plus deferred amounts:	\$118,553,542	\$ -	\$ (8,934,576)	\$109,618,966	\$ 9,483,371
Net premium (discount			(95,610)	2,145,717	95,610
Total					

During FY2017 and FY2016, the Authority was in compliance with the covenants associated with the outstanding bond indentures.

#### Prior defeasance of debt

In FY2015, the Authority issued revenue bonds with a face value of \$7,800,000 and an average interest rate of 4.2% to refund \$7,500,000 in outstanding 2008 bonds. The proceeds were placed in trust to fund all future debt service payments. The liability for the refunded bonds has been replaced with the liability from the new debt with the difference between the reacquisition price and the net carrying amount of the old debt being deferred and amortized over the life of the new debt in proportion to the stated interest due on the new debt. The outstanding principal of the defeased bonds was \$7,500,000 as of September 30, 2017.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan

# **Plan Description**

All full-time, salaried permanent employees of the Authority (Political Subdivision) are automatically covered by the VRS Retirement Plan upon employment. This plan is an agent multiple-employer plan administered by the Virginia Retirement System (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. The Code of Virginia, as amended, assigns the authority to establish and amend benefit provisions to the Virginia General Assembly. The System issues a publicly available comprehensive annual financial report for VRS. A copy of that report mav be downloaded from the **VRS** website http://www.varetire.org/Pdf/Publications/2016-annual-report.pdf.

GASB Statement No. 68, Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27, as amended by GASB Statement No. 71 requires the net pension liability to be measured as of a date no earlier than the end of the employer's prior fiscal year. The actuarial report provided for the Authority, however, has a measurement date as of June 30, 2016, resulting in a discrepancy of three months. Further calculations to update the employer pension expense, net pension liability and deferred inflows of resources have not been estimated; however, management has determined the impact of the additional three months to be immaterial.

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

# **Plan Description** (Continued)

The System administers three different benefit structures for covered employees – Plan 1, Plan 2, and Hybrid. Each of these benefit structures has a different eligibility criteria. The specific information for each plan is as follows:

<u>Plan 1</u> – 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.

- **Hybrid Opt-In Election** –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. The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.
- Retirement Contributions Employees contribute 5.00% 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 5.00% member contribution but all employees are paying the full 5.00% 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 payments.
- 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.
- 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 the employers contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.
- Calculating the Benefit The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier, and total service credit at retirement. It is one of the benefit payout options available to a member at retirement. An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

# **Plan Description** (Continued)

# Plan 1 (Continued)

- Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.
- **Service Retirement Multiplier** The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.70%.
- Normal Retirement Age Age 65.
- Earliest Unreduced Retirement Eligibility Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.
- Earliest Reduced Retirement Eligibility Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service.
- Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3.00% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4.00%) up to a maximum COLA of 5.00%.
  - Eligibility For members who retire with an unreduced benefit or 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.
  - Exceptions to COLA Effective Dates The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:
    - The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.
    - The member retires on disability.
    - The member retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP).
    - The member is involuntarily separated from employment for causes other than
      job performance or misconduct and is eligible to retire under the Workforce
      Transition Act or the Transitional Benefits Program.
    - The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.
- **Disability Coverage** for members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.70% on all service, regardless of when it was earned, purchased, or granted. VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

**Plan Description** (Continued)

# Plan 1 (Continued)

• **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 towards 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.

<u>Plan 2</u> - 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.

- **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. The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.
- **Retirement Contributions** Employees contribute 5.00% 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 5.00% member contribution but all employees will be paying the full 5.00% by July 1, 2016.
- Creditable Service Same as Plan 1.
- **Vesting** Same as Plan 1.
- Calculating the Benefit See definition under Plan 1.
- Average Final Compensation A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.
- **Service Retirement Multiplier** Same as Plan 1 for service earned, purchased, or granted prior to January 1, 2013. The retirement multiplier is 1.65% for creditable service earned, purchased, or granted on or after January 1, 2013.
- **Normal Retirement Age** Normal Social Security retirement age.

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• Earliest Unreduced Retirement Eligibility – Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

**Plan Description** (Continued)

# Plan 2 (Continued)

- Earliest Reduced Retirement Eligibility Age 60 with at least five years (60 months) of creditable service.
- Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 2.00% increase in the CPI-U and half of any additional increase (up to 2.00%), for a maximum COLA of 3.00%.
  - o Eligibility Same as Plan 1.
  - o Exceptions to COLA Effective Dates Same as Plan 1.
- **Purchase of Prior Service** Same as Plan 1.
- **Disability Coverage** Same as Plan 1 except that the retirement multiplier is 1.65%.

Hybrid Retirement Plan – The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window. The defined benefit is based on a member's age, creditable service, and average final compensation at retirement using a formula. The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions. In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.

- Eligible Members Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes Political Subdivision employees; members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1 through April 30, 2014; the plan's effective date for opt-in members was July 1, 2014.
- Non-Eligible Members Some employees are not eligible to participate in the Hybrid Retirement Plan. They include Political Subdivision employees who are covered by enhanced benefits for hazardous duty employees and 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.

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

**Plan Description** (Continued)

#### **Hybrid Retirement Plan (Continued)**

• Retirement Contributions – A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.

#### Creditable Service –

- O **Defined Benefit Component:** Under the defined benefit component of the plan, creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional credible service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.
- **Defined Contributions Component:** Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.

# Vesting –

- O Defined Benefit Component: Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (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.
- Defined Contributions Component: Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan. Members are always 100% vested in the contributions that they make. Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service. After two years, a member is 50% vested and may withdraw 50% of employer contributions. After three years, a member is 75% vested and may withdraw 75% of employer contributions. After four or more years, a member is 100% vested and may withdraw 100% of employer contributions. Distribution is not required by law until age 70½.

#### • Calculating the Benefit –

o **Defined Benefit Component:** See definition under Plan 1.

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

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

# **Plan Description** (Continued)

# **Hybrid Retirement Plan** (Continued)

- **Average Final Compensation** Same as Plan 2 for the defined benefit component of the plan.
- **Service Retirement Multiplier** The retirement multiplier for the defined benefit component is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.
- Normal Retirement Age
  - Defined Benefit Component: Same as Plan 2.
  - O **Defined Contribution Component:** Members are eligible to receive distributions upon leaving employment, subject to restrictions.
- Earliest Unreduced Retirement Eligibility
  - O Defined Benefit Component: Normal Social Security retirement age and have at least five years (60 months) of creditable service or when their age and service equal 90.
  - **Defined Contribution Component:** Members are eligible to receive distributions upon leaving.
- Earliest Reduced Retirement Eligibility
  - o **Defined Benefit Component:** Members may retire with a reduced benefit as early as age 60 with at least five years (60 months) of creditable service.
  - O **Defined Contribution Component:** Members are eligible to receive distributions upon leaving employment, subject to restrictions
- Cost-of-Living Adjustment (COLA) in Retirement
  - o **Defined Benefit Component:** Same as Plan 2.
  - Defined Contribution Component Not Applicable
  - o **Eligibility** Same as Plan 1 and 2.
  - o **Exceptions to COLA Effective Dates** Same as Plan 1 and 2.
- **Disability Coverage** Employees of Political Subdivisions (including Plan 1 and Plan 2 optins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides and employer-paid comparable program for its members. Hybrid members (including Plan 1 and Plan 2 optins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

# **Plan Description** (Continued)

#### **Hybrid Retirement Plan (Continued)**

- Purchase of Prior Service
  - o **Defined Benefit Component** Same as Plan 1, with the following exceptions:
    - Hybrid Retirement Plan members are ineligible for ported service.
    - The cost for purchasing refunded service is the highest 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
  - o **Defined Contribution Component** Not Applicable.

#### **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:

	Number
Inactive members or their beneficiaries currently receiving benefits	81
Inactive members:	
Vested inactive members	12
Non-vested inactive members	23
Inactive members active elsewhere in VRS	9
Total inactive members	44
Active members	91
Total covered employees	216

#### **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 5.00% 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.

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# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

# **Contributions** (Continued)

The Political Subdivision's contractually required contribution rate for the year ended June 30, 2016 was 11.08% of covered employee compensation, and 8.95% thereafter. These rates were based on actuarially determined rates from actuarial valuations as of June 30, 2013 and 2014.

These rates, when combined with employee contributions, were 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 Political Subdivision were \$740,517 and \$844,141 for the years ended September 30, 2017 and September 30, 2016, respectively.

#### **Net Pension Liability**

The Political Subdivision's net pension 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**

The total pension liability for General Employees in the Political Subdivision's Retirement Plan was based on an actuarial valuation as of June 30, 2014, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2016.

Inflation 2.50%

General Employees - Salary increases, 3.50 - 5.35% including inflation

Investment rate of return 7.00%, net of pension plan investment expense, including inflation

Mortality rates: General employees - 14% of deaths are assumed to be service related. Public Safety Employees - 60% of deaths are assumed to be service related. Mortality is projected using the applicable RP-2000 Mortality Table Projected to 2020 with various set backs or set forwards for both males and females.

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:

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 6. Defined Benefit Pension Plan (Continued)

# **Actuarial Assumptions** (Continued)

General Employees - Largest 10 - Non-LEOS and all Others (Non 10 Largest): Update mortality table; decrease in rates of service retirement; decrease in rates of disability retirement; and reduce rates of salary increase by 0.25% per year.

# **Long-Term Expected Rate of Return**

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

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
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	100.00 %		5.83 %
	Inflation		2.50 %
* Expected arith	8.33 %		

<sup>\*</sup>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%.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 6. Defined Benefit Pension Plan (Continued)

# **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 Political Subdivision Retirement Plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2018 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

# **Changes in Net Pension Liability**

	Increase (Decrease)					
		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) – (b)
Balances at June 30, 2015	\$	47,375,430	\$	40,349,351	\$	7,026,079
Changes for the year:						
Service cost		682,527		-		682,527
Interest		3,236,592		-		3,236,592
Differences between expected						
and actual experience		(598,619)		-		(598,619)
Contributions – employer		-		893,151		(893,151)
Contributions – employee		-		397,795		(397,795)
Net investment income		-		681,557		(681,557)
Benefit payments, including refunds						
of employee contributions		(2,276,811)		(2,276,811)		-
Administrative expenses		-		(25,420)		25,420
Other changes			_	(294)		294
Net changes		1,043,689		(330,022)		1,373,711
Balances at June 30, 2016	\$	48,419,119	\$	40,019,329	\$	8,399,790

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 6. Defined Benefit Pension Plan (Continued)

#### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Political Subdivision using the discount rate of 7.00%, as well as what the Political Subdivision's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	 1.00% Decrease (6.00%)	Current Discount ate (7.00%)	1.00% Increase (8.00%)		
Political Subdivision's net pension liability	\$ 14,365,930	\$ 8,399,790	\$	3,390,340	

# <u>Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related</u> to Pensions

For the fiscal year ended September 30, 2017, the Political Subdivision recognized pension expense of \$244,514. At September 30, 2017, the Political Subdivision reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	0	Deferred utflows of Resources	Deferred Inflows of Resources			
Differences between expected and actual experience	\$	-	\$	881,910		
Change in assumptions		-		-		
Net difference between projected and actual earnings on pension plan investments		1,041,753		-		
Employer contributions subsequent to the measurement date		911,234				
Total	\$	1,952,988	\$	881,910		

The \$911,234 reported as deferred outflows of resources related to pensions resulting from the Political Subdivision's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2018. Other amounts reported as deferred inflows of resources related to pensions will be recognized in pension expense as follows:

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 6. Defined Benefit Pension Plan (Continued)

Year Ending September 30,	Addition/ (Reduction) to Pension Expense				
2010	Ф	(512.454)			
2018	\$	(513,474)			
2019		(333,706)			
2020		585,526			
2021		421,497			
2022		-			
Thereafter		-			

#### Payables to the Pension Plan

At September 30, 2017, approximately \$91,000 was payable to the Virginia Retirement System for the legally required contributions related to September 2017 payroll.

# Note 7. Other Post-Employment Benefits

The Authority provides limited post-retirement benefits such as health, dental and vision insurance to retirees who have five or more years of service with the Authority. The Authority pays 25% of medical insurance costs of retirees with five or more years of service. The remaining amounts of insurance premiums are paid by the retiree. Prior to fiscal 2014, the Authority also provided a post-retirement life insurance benefit to retirees. The Authority has discontinued its post retirement life insurance coverage for retirees.

The Authority had an actuarial valuation of post-employment benefits performed as of January 1, 2016. GASB Statement No. 45 does not require pre-funding of OPEB liabilities. The Authority began to prefund OPEB liabilities as recorded in its OPEB Trust Fund. At September 30, 2017 and 2016, the Authority has recorded a liability of \$1,950,513 and \$1,868,988, respectively, on the statement of net position.

The Authority's annual OPEB cost was \$149,188 and \$147,795 for the health insurance plan, for fiscal years ending September 30, 2017 and 2016, respectively. The pay as you go cost for the Authority's OPEB benefits was \$39,822 and \$7,125 for the health insurance plan, for the fiscal years ending September 30, 2017 and 2016, respectively. In accordance with GASB Statement No. 45, the Authority's OPEB expense is calculated based on the annual required contribution (ARC). The ARC represents a level of funding that, if paid on an on-going basis, is projected to cover normal cost each year and amortize any unfunded actuarial accrued liabilities (UAAL) over a period not to exceed thirty years.

The plan does not issue separate financial statements.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 7. Other Post-Employment Benefits (Continued)

# **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 members at that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the actuarial valuation, the entry age normal actuarial cost method was used. The valuation results are based on a discount rate of 7.0%, an annual payroll growth rate of 3.0%, and an annual healthcare cost trend rate of 5.1% initially, decreasing annually to a rate of 4.1%. An inflation rate of 2.5% is used in the assumptions. The unfunded liability is amortized over a closed period of 30 years at a level percentage of pay.

Actuarial valuations of an on-going 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 revisions as actual results are compared with past expectations and new estimates are made for the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

#### **Annual Other Post-employment Benefit Cost and Net OPEB Obligation**

4 44.

The following table shows the calculation of the net OPEB obligation at September 30:

September 30,	Annual Required ontribution (ARC)	on Years OPEB Adjustment OPE		Adjustment		Annual OPEB Costs	Contributions		Increase (Decrease) in Net OPEB Obligations		Net OPEB Obligations End of Year		
2017	\$ 125,355	\$	163,759	\$	(139,926)	\$	149,188	\$	(67,663)	\$	81,525	\$	1,950,513
2016	121,704		161,990		(135,899)		147,795		(592,953)		(445,158)		1,868,988
2015	279,216		64,750		(76,658)		267,308		(111,493)		155,815		2,314,146
2014	264,566		59,302		(67,868)		256,000		(74,406)		181,594		2,158,331
2013	269,561		55,370		(63,368)		261,563		(130,504)		131,059		1,976,737
2012	486,691		44,228		(50,617)		480,302		(108,900)		371,402		1,845,678
2011	622,792		29,577		(36,929)		615,440		(127,080)		488,360		1,474,276
2010	599,096		14,811		(18,173)		595,734		(103,507)		492,227		985,916

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# **Note 7.** Other Post-Employment Benefits (Continued)

The Authority has established an OPEB Trust for the purpose of funding its future obligations. During FY2016, the Authority modified its retiree health benefits such as the adoption of "high deductible" health insurance plans, which has reduced the annual OPEB costs compared to prior years.

Three-Year	Trend	Information	nn
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September 30,		Annual OPEB Costs	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligations End of Year		
2017 2016 2015	\$	149,188 147,795 267,308	45.35% 401.20% 42.00%	\$	1,950,513 1,868,988 2,314,146	

# **Net OPEB Liability**

The components of the net OPEB liability at September 30, 2017 were as follows.

Total OPEB Liability	\$1,930,209
Plan fiduciary net position	(773,591)
Net OPEB liability	<u>\$1,156,618</u>
Plan fiduciary net position as a Percentage of the total OPEB	
Liability	40.1%

# **Funded Status and Funding Progress**

The funded status of the plan as of January 1, 2016 was as follows:

Actuarial Accrued Liability (AAL)	\$1,755,721
Actuarial Value of Plan Assets	\$ 566,793
Unfunded Actuarial Liability (UAL)	\$1,188,928
Funded Ratio (Actuarial Value of Plan Assets/AAL)	32.3%
Covered Payroll (Active Plan Members)	\$8,480,330
UAAL as a Percentage of Covered Payroll	14.0%

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 7. Other Post-Employment Benefits (Continued)

# **Sensitivity of the Net OPEB Liability**

The following presents the Net OPEB Liability of the Authority, calculated using the discount rate of 7.00%, as well as what the Authority's Net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.00%) or 1 percentage point higher (8.00%) than the current rate.

	1.00% Decrease (6.00%)			Current Discount Rate (7.00%)	1.00% Increase (8.00%)		
Authority's OPEB liability Authority's fiduciary net position	\$	2,064,543 773,591	\$	1,930,209 773,591	\$	1,806,609 773,591	
Net OPEB Liability	\$	1,290,952	\$	1,156,618	\$	1,033,018	

The following presents the Net OPEB Liability of the Authority, calculated using the current healthcare cost trend rates, as well as what the Authority's Net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage point lower or 1 percentage point higher than the current rate.

	 1.00% Decrease (6.00%)	 Current Discount Rate (7.00%)	 1.00% Increase (8.00%)		
Authority's OPEB liability Authority's fiduciary net position	\$ 1,753,086 773,591	\$ 1,930,209 773,591	\$ 2,131,010 773,591		
Net OPEB Liability	\$ 979,495	\$ 1,156,618	\$ 1,357,419		

During 2014, the Authority established a trust fund to fund the cost of OPEB. The trust fund was established by the Authority with the Virginia Pooled OPEB Trust Fund (Trust), sponsored by the Virginia Municipal League and the Virginia Association of Counties, and overseen by a Board of Trustees. The Trust is established as an investment vehicle for participating employers to accumulate assets to fund OPEB Plan assets for purposes of GASB Statement No. 45 that are segregated and restricted in a trust, in which (a) contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer or plan administrator, for the payment of benefits in accordance with terms of the plan.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### Note 7. Other Post-Employment Benefits (Continued)

#### **Trust Fund Investments**

Investment decisions for the fund's assets are made by the Board of Trustees. The Board of Trustees established investment objectives, risk tolerance and asset allocation policies in light of the investment policy, market and economic conditions, and generally prevailing prudent investment practices. The Board of Trustees also monitors the investments to ensure adherence to the adopted policies and guidelines. In addition, the Trustees review, monitor, and evaluate the performance of the investments and its investment advisors in light of available investment opportunities, market conditions and publicly available indices for the generally accepted evaluation and measurement of such performance.

The following is the Board of Trustees adopted asset allocation policy as of September 30, 2017:

	Allocation –	Allocation –
Asset Class (Strategy)	Portfolio I	Portfolio II
Total Equity	59%	32%
Total Fixed Income	21%	58%
Total Real Assets	10%	5%
Diversified Hedge Funds	10%	5%
Total	100%	100%

**Concentrations** – There are no investments in any one organization that represents 5 percent or more of the OPEB Trust's fiduciary net position.

Rate of Return – For the fiscal year ended September 30, 2017, the annual money-weighted rate of return on investments, net of investment expense, was 12.73%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Additional investment information for the Trust can be obtained by writing to VML/VACo Finance Program, 1108 East Main Street, Richmond Virginia, 23219.

#### **Note 8.** Line of Credit

The Authority maintained a Bank Line of Credit in FY2017 under the same terms as the prior year. The interest rate is a variable rate calculated for each month as 69.75% of the one-month LIBOR rate plus 55 basis points. The rate was 1.41% and 0.75% at September 30, 2017 and 2016, respectively. The Authority has pledged net revenues to secure the payment of principal and interest. The revolving credit agreement constitutes subordinate debt under the Master Indenture of Trust discussed in Note 6. The Authority's line of credit was established to provide for funds to meet cash flow needs for construction activity as required. The outstanding balance on the line was \$0 and \$10,019,000 at September 30, 2017 and 2016, respectively.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

# Note 9. Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These risks are covered by commercial insurance purchased from independent third parties. There have been no significant reductions in insurance coverage from the prior year. Settled claims have not exceeded insurance coverage in the past three years.

#### Note 10. Commitments and Contingencies

During FY2017, the Authority entered into various construction contracts. As of September 30, 2017, approximately \$112,000 was outstanding for work that has not yet been completed.

From time to time, the Authority is involved in various legal actions arising in the normal course of business. In the opinion of management, such matters will not have a material effect upon the financial position of the Authority.

## Note 11. New Accounting Standards

The Governmental Accounting Standards Board (GASB) has issued the following Statements which are not yet effective.

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for all postemployment benefits (pensions and OPEB) with regard to providing decision-useful information, supporting assessments of accountability and interperiod equity, and creating additional transparency. This Statement will be effective for the year ending September 30, 2018.

GASB Statement No. 81, Irrevocable Split-Interest Agreements provides recognition and measurement guidance for situations in which a government is a beneficiary of an irrevocable split-interest agreement. This Statement requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement. Furthermore, this Statement requires that a government recognize assets representing its beneficial interests in irrevocable split-interest agreements that are administered by a third party, if the government controls the present service capacity of the beneficial interests. This Statement requires that a government recognize revenue when the resources become applicable to the reporting period. This Statement will be effective for the year ending September 30, 2018

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### **Note 11.** New Accounting Standards (Continued)

GASB Statement No. 82, Pension Issues—an amendment of GASB Statements No. 67, No. 68, and No. 73 addresses certain issues that have been raised with respect to Statements No. 67, Financial Reporting for Pension Plans, No. 68, Accounting and Financial Reporting for Pensions, and No. 73, Accounting and Financial Reporting for Pensions and Related Assets that are not within the scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. Specifically, this Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. This Statement will be effective for the year ending September 30, 2017, except for certain provisions regarding assumptions for plans with a measurement date that differs from the employer's reporting date – those provisions are effective for the year ending September 30, 2018.

GASB Statement No. 83, Certain Asset Retirement Obligations establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflows or resources for Asset Retirement Obligations (AROs). This Statement requires that recognition occur when the liability is both incurred and reasonably estimable. The determination of when the liability incurred should be based on the occurrence of external laws, regulations, contracts, or court judgements, together with the occurrence of an internal event that obligates a government to perform asset retirement activities. Law and regulations may require governments to take specific actions to retire certain tangible capital assets at the end of the useful lives of those capital assets, such as decommissioning nuclear reactors and dismantling and removing sewage treatment plans. Other obligations to retire tangible capital assets may arise from contracts or court judgments. Internal obligating events include the occurrence of contamination, placing into operation of a tangible capital asset that is required to be retired, abandoning a tangible capital asset before it is placed into operation, or acquiring a tangible capital asset that has an existing ARO. This statement will be effective for the year ending September 30, 2019.

**GASB Statement No. 84, Fiduciary Activities** establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria is on (1) whether a government is controlling the assets of the fiduciary and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. This Statement will be effective for the year ending September 30, 2020.

GASB Statement No. 85, *Omnibus 2017* addresses practice issues that have been identified during implementation and application of certain GASB Statements, including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits. This Statement will be effective for the year ending September 30, 2018.

# NOTES TO FINANCIAL STATEMENTS September 30, 2017

#### **Note 11.** New Accounting Standards (Continued)

GASB Statement No. 86, Certain Debt Extinguishment Issues, improves 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 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. This Statement will be effective for the year ending September 30, 2018.

**GASB Statement No. 87,** *Leases* establishes a single model for lease accounting based on the foundational principal 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. This Statement will be effective for the year ending September 30, 2021.

Management has not yet evaluated the effects, if any, of adopting these standards.

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# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS September 30, 2017

		Plan	Year	<b>Ended June</b>	30,		
<b>Total Pension Liability</b>	201	.6	2015			2014	
Service cost	\$ 63	82,527	\$	771,341	\$	757,878	
Interest on total pension liability	3,2	36,592		3,206,163		3,092,779	
Difference between expected and actual experience	(59	98,619)		(1,127,638)		-	
Benefit payments, including refunds of employee contributions	(2,2'	76,811)		(2,553,525)		(1,908,245)	
Net change in total pension liability	1,04	43,689		296,341		1,942,412	
Total pension liability - beginning	47,3	75,430		47,079,089		45,136,677	
Total pension liability - ending	48,4	19,119		47,375,430		47,079,089	
Plan Fiduciary Net Position							
Contributions - employer	89	93,151		915,790		852,928	
Contributions - employee	39	97,795		413,212		583,295	
Net investment income	6	81,557		1,789,373		5,462,840	
Benefit payments, including refunds of employee contributions	(2,2	76,811)		(2,553,525)		(1,908,245)	
Administrative expenses	(2	25,420)		(25,361)		(29,559)	
Other		(294)		(375)		288	
Net change in plan fiduciary net position	(3.	30,022)		539,114		4,961,547	
Plan fiduciary net position - beginning	40,3	49,351		39,810,237		34,848,690	
Plan fiduciary net position - ending	40,0	19,329		40,349,351		39,810,237	
Net pension liability - ending	\$ 8,39	99,790	\$	7,026,079	\$	7,268,852	
Plan fiduciary net position as a percentage of total pension liability		83%		85%	_	85%	
Covered payroll	\$ 7,80	02,611	\$	7,746,889	\$	8,434,533	
Net pension liability as a percentage of covered payroll		108%		91%		86%	

The plan years above are reported in the entity's financial statements in the fiscal year following the plan year - e.g., plan year 2014 was presented in the entity's fiscal year 2015 financial report.

This schedule is intended to show information for 10 years. Since fiscal year 2015 (plan year 2014) was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF PENSION CONTRIBUTIONS September 30, 2017

Contributions in

Entity Fiscal Year Ended September 30	ally Determined	Rela	ation to Actuarially Determined Contribution	ally  Contribution Deficiency (Excess)			vered Payroll	Contributions as a Percentage of Covered Payroll		
2017 2016 2015	\$ 740,517 844,141 858,355	\$	740,517 844,141 956,177	\$	- - (97,822)	\$	8,273,941 8,216,533 7,746,889	8.95% 10.27% 12.34%		

Schedule is intended to show information for 10 years. Since 2015 was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN NET OBEB LIABILITY AND RELATED RATIOS September 30, 2017

Total OPEB Liability	F	iscal Year 2017
Service cost	\$	53,055
Interest on total OPEB liability	Ψ	129,354
Benefit payments, including refunds of employee contributions		(92,542)
Net change in total OPEB liability		89,867
Total OPEB liability - beginning		1,840,342
Total OPEB liability - ending		1,930,209
Plan Fiduciary Net Position		
Contributions - employer		72,822
Contributions - employee		83,269
Net investment income		80,776
Benefit payments, including refunds of employee contributions		(123,090)
Administrative expenses		(2,059)
Net change in plan fiduciary net position	-	111,718
Plan fiduciary net position - beginning		661,873
Plan fiduciary net position - ending		773,591
Net OPEB liability - ending	\$	1,156,618
Plan fiduciary net position as a percentage of total OPEB liability		40%
Covered payroll	\$	8,480,330
Net OPEB liability as a percentage of covered employee payroll		14%

This schedule is intended to show information for 10 years. Since fiscal year 2017 was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

#### **Required Supplementary Information**

# **Schedule of Funding Progress - Other Post Employment Benefits**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b-a)/c]
9/30/2008	\$ -	\$ 8,191,842	\$ 8,191,842	0%	\$ 9,158,860	89.70%
9/30/2009	_	8,628,501	8,628,501	0%	8,912,552	94.20%
9/30/2010	-	9,063,771	9,063,771	0%	9,318,343	97.30%
9/30/2011	-	7,772,056	7,772,056	0%	7,789,594	99.80%
9/30/2012	-	8,114,534	8,114,534	0%	8,212,207	98.81%
9/30/2013	-	3,793,763	3,793,763	0%	8,944,084	42.42%
1/1/2016	566,793	1,755,721	1,188,928	32%	8,480,330	14.02%

See Note 7 in the accompanying Notes to Financial Statements for the plan description, funding policy, annual OPEB cost, net OPEB obligation, funded status, and funding progress.

# **ALEXANDRIA RENEW ENTERPRISES**

# **Required Supplementary Information**

#### **Schedule of Investment Returns - OPEB Trust**

Annual money-weighted rate of return, net of investment expense:

2017 12.73%

Schedule is intended to show information for 10 years. Since 2017 was the first year for this presentation, no earlier data is available. However, additional years will be included as they become available.

# NOTES TO REQUIRED SUPPLEMENTARY INFORMATION September 30, 2017

#### Note 1. Changes of Benefit Terms

There have been no significant changes to the Virginia Retirement System (System) benefit provisions since the prior actuarial valuation. A hybrid plan with changes to the defined benefit plan structure and a new defined contribution component were adopted in 2012. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. The liabilities presented do not reflect the hybrid plan since it covers new members joining the System after the valuation date of June 30, 2014, and the impact on the liabilities as of the measurement date of September 30, 2016 are minimal.

# Note 2. 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

#### Largest 10 – LEOS:

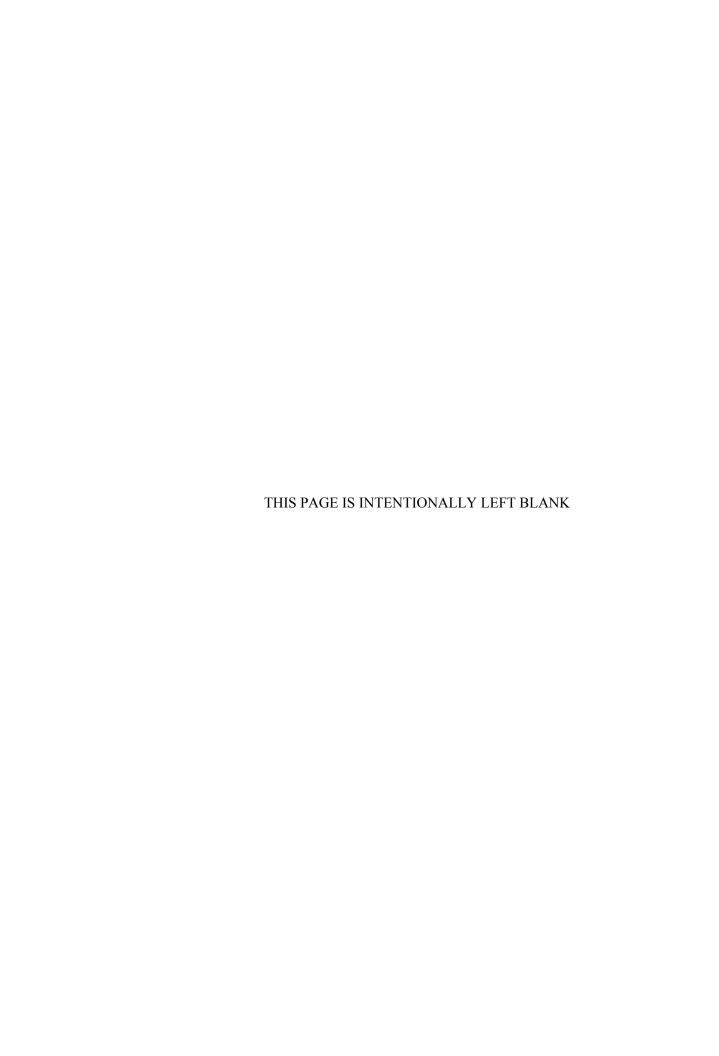
- Update mortality table
- Decrease in male rates of disability

## 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

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

- Update mortality table
- Adjustment to rates of service retirement for females
- Increase in rates of withdrawal
- Decrease in male and female rates of disability





# **Financial Trends**

Financial trend information is intended to assist users in understanding how the Authority's net position has changed over time. The tables below disclose comparative financial data.

Current Assets		<u>2017</u>	<u>2016</u>	<u>2015</u>	$2014^{(2)}$	<b>2013</b> <sup>(1)</sup>	<u>2012</u>	<u>2011</u>	<u>2010</u>	2009	2008
Non-current Assets	Assets										
Deferred Outflows   3,009,750   2,193,183   2,332,861	Current Assets	\$ 71,992,329	\$ 58,517,536	\$ 74,456,170	\$ 86,428,544	\$ 71,873,061	\$ 48,735,050	\$ 49,878,801	\$ 40,936,857	\$ 29,036,214	\$ 23,043,703
Total Assets and Deferred Outflows   \$822,730,506   \$812,131,146   \$793,445,399   \$737,512,707   \$650,765,737   \$599,920,969   \$581,385,371   \$570,653,609   \$537,090,728   \$495,154,858	Non-current Assets	747,728,427	751,420,427	716,656,368	651,084,163	578,892,676	551,185,919	531,506,570	529,716,752	508,054,514	472,111,155
Liabilities Current Liabilities   \$18,400,831   \$34,860,034   \$41,395,712   \$41,743,756   \$24,535,900   \$19,960,226   \$22,766,941   \$21,561,196   \$16,763,091   \$12,866,266   \$10,000,000   \$10,000,00	Deferred Outflows	3,009,750	2,193,183	2,332,861							
Current Liabilities         \$ 18,400,831         \$ 34,860,034         \$ 41,395,712         \$ 41,743,756         \$ 24,535,900         \$ 19,960,226         \$ 22,766,941         \$ 21,561,196         \$ 16,763,091         \$ 12,866,266           Long-term Liabilities         127,027,777         111,329,090         121,578,497         106,414,204         100,476,050         105,147,225         108,100,791         113,707,151         106,392,180         92,416,302           Total Liabilities and Deferred Inflows         \$ 146,310,518         \$ 148,051,629         \$ 165,406,991         \$ 148,157,960         \$ 125,011,950         \$ 125,107,451         \$ 130,867,732         \$ 135,268,347         \$ 105,282,568           Net Position           Net Investment in Capital Assets         \$ 622,454,674         \$ 630,741,541         \$ 586,995,330         \$ 537,784,921         \$ 471,881,818         \$ 435,451,972         \$ 403,409,766         \$ 395,087,048         \$ 382,932,818         \$ 364,871,030           Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156	<b>Total Assets and Deferred Outflows</b>	\$ 822,730,506	\$ 812,131,146	\$ 793,445,399	\$ 737,512,707	\$ 650,765,737	\$ 599,920,969	\$ 581,385,371	\$ 570,653,609	\$ 537,090,728	\$ 495,154,858
Current Liabilities \$18,400,831 \$34,860,034 \$41,395,712 \$41,743,756 \$24,535,900 \$19,960,226 \$22,766,941 \$21,561,196 \$16,763,091 \$12,866,266 Long-term Liabilities \$127,027,777 \$111,329,090 \$121,578,497 \$106,414,204 \$100,476,050 \$105,147,225 \$108,100,791 \$113,707,151 \$106,392,180 \$92,416,302 \$104 Liabilities and Deferred Inflows \$81,910 \$1,862,505 \$2,432,782 \$148,051,629 \$165,406,991 \$148,157,960 \$125,011,950 \$125,107,451 \$130,867,732 \$135,268,347 \$123,155,271 \$105,282,568 \$104 Liabilities and Deferred Inflows \$146,310,518 \$148,051,629 \$165,406,991 \$148,157,960 \$125,011,950 \$125,107,451 \$130,867,732 \$135,268,347 \$123,155,271 \$105,282,568 \$104 Liabilities And Deferred Inflows \$146,310,518 \$148,051,629 \$116,629,330 \$116,629,330 \$16,799,469 \$16,486,146 \$15,795,460 \$16,426,547 \$13,827,081 \$9,463,057 \$10,445,651 \$100,476,950 \$100,47							-		-		·
Long-term Liabilities   127,027,777   111,329,090   121,578,497   106,414,204   100,476,050   105,147,225   108,100,791   113,707,151   106,392,180   92,416,302	Liabilities										
Deferred Inflows   88,910   1,862,505   2,432,782	Current Liabilities	\$ 18,400,831	\$ 34,860,034	\$ 41,395,712	\$ 41,743,756	\$ 24,535,900	\$ 19,960,226	\$ 22,766,941	\$ 21,561,196	\$ 16,763,091	\$ 12,866,266
Net Position         \$ 622,454,674         \$ 630,741,541         \$ 586,995,330         \$ 537,784,921         \$ 471,881,818         \$ 435,451,972         \$ 403,409,766         \$ 395,087,048         \$ 382,932,818         \$ 364,871,030           Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156         23,566,086         30,681,326         26,471,133         21,539,582         14,555,609           Total Net Position         676,419,988         664,079,517         628,038,408         589,354,747         525,908,120         474,813,518         435,385,262         413,935,457         389,872,290         382,703,592	Long-term Liabilities	127,027,777	111,329,090	121,578,497	106,414,204	100,476,050	105,147,225	108,100,791	113,707,151	106,392,180	92,416,302
Net Position         Net Investment in Capital Assets         \$ 622,454,674         \$ 630,741,541         \$ 586,995,330         \$ 537,784,921         \$ 471,881,818         \$ 435,451,972         \$ 403,409,766         \$ 395,087,048         \$ 382,932,818         \$ 364,871,030           Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156         23,566,086         30,681,326         26,471,133         21,539,582         14,555,609           Total Net Position         676,419,988         664,079,517         628,038,408         \$ 589,354,747         \$ 525,908,120         \$ 474,813,518         \$ 435,385,262         \$ 413,935,457         \$ 389,872,290         \$ 382,703,592    Total Liabilities, Deferred Inflows	Deferred Inflows	881,910	1,862,505	2,432,782							
Net Investment in Capital Assets         \$ 622,454,674         \$ 630,741,541         \$ 586,995,330         \$ 537,784,921         \$ 471,881,818         \$ 435,451,972         \$ 403,409,766         \$ 395,087,048         \$ 382,932,818         \$ 364,871,030           Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156         23,566,086         30,681,326         26,471,133         21,539,582         14,555,609           Total Net Position         \$ 676,419,988         \$ 664,079,517         \$ 628,038,408         \$ 589,354,747         \$ 525,908,120         \$ 474,813,518         \$ 435,385,262         \$ 413,935,457         \$ 389,872,290         \$ 382,703,592    Total Liabilities, Deferred Inflows	Total Liabilities and Deferred Inflows	\$ 146,310,518	\$ 148,051,629	\$ 165,406,991	\$ 148,157,960	\$ 125,011,950	\$ 125,107,451	\$ 130,867,732	\$ 135,268,347	\$ 123,155,271	\$ 105,282,568
Net Investment in Capital Assets         \$ 622,454,674         \$ 630,741,541         \$ 586,995,330         \$ 537,784,921         \$ 471,881,818         \$ 435,451,972         \$ 403,409,766         \$ 395,087,048         \$ 382,932,818         \$ 364,871,030           Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156         23,566,086         30,681,326         26,471,133         21,539,582         14,555,609           Total Net Position         \$ 676,419,988         \$ 664,079,517         \$ 628,038,408         \$ 589,354,747         \$ 525,908,120         \$ 474,813,518         \$ 435,385,262         \$ 413,935,457         \$ 389,872,290         \$ 382,703,592    Total Liabilities, Deferred Inflows											
Restricted Net Position         15,737,405         13,652,933         11,629,933         16,799,469         16,486,146         15,795,460         16,426,547         13,827,081         9,463,057         10,445,651           Unrestricted Net Position         38,227,909         19,685,043         29,413,145         34,770,357         37,540,156         23,566,086         30,681,326         26,471,133         21,539,582         14,555,609           Total Net Position         \$ 676,419,988         \$ 664,079,517         \$ 628,038,408         \$ 589,354,747         \$ 525,908,120         \$ 474,813,518         \$ 435,385,262         \$ 413,935,457         \$ 389,872,290         \$ 382,703,592           Total Liabilities, Deferred Inflows	Net Position										
Unrestricted Net Position 38,227,909 19,685,043 29,413,145 34,770,357 37,540,156 23,566,086 30,681,326 26,471,133 21,539,582 14,555,609  Total Net Position \$676,419,988 \$664,079,517 \$628,038,408 \$589,354,747 \$525,908,120 \$474,813,518 \$435,385,262 \$413,935,457 \$389,872,290 \$382,703,592	Net Investment in Capital Assets	\$ 622,454,674	\$ 630,741,541	\$ 586,995,330	\$ 537,784,921	\$ 471,881,818	\$ 435,451,972	\$ 403,409,766	\$ 395,087,048	\$ 382,932,818	\$ 364,871,030
Total Net Position         \$ 676,419,988         \$ 664,079,517         \$ 628,038,408         \$ 589,354,747         \$ 525,908,120         \$ 474,813,518         \$ 435,385,262         \$ 413,935,457         \$ 389,872,290         \$ 382,703,592           Total Liabilities, Deferred Inflows	Restricted Net Position	15,737,405	13,652,933	11,629,933	16,799,469	16,486,146	15,795,460	16,426,547	13,827,081	9,463,057	10,445,651
Total Liabilities, Deferred Inflows	Unrestricted Net Position	38,227,909	19,685,043	29,413,145	34,770,357	37,540,156	23,566,086	30,681,326	26,471,133	21,539,582	14,555,609
,	Total Net Position	\$ 676,419,988	\$ 664,079,517	\$ 628,038,408	\$ 589,354,747	\$ 525,908,120	\$ 474,813,518	\$ 435,385,262	\$ 413,935,457	\$ 389,872,290	\$ 382,703,592
and Net Position \$ 822,730,506 \$ 812,131,146 \$ 793,445,399 \$ 737,512,707 \$ 650,920,070 \$ 599,920,969 \$ 570,653,609 \$ 537,090,728 \$ 495,154,858 \$ 492,573,007	Total Liabilities, Deferred Inflows										
	and Net Position	\$ 822,730,506	\$ 812,131,146	\$ 793,445,399	\$ 737,512,707	\$ 650,920,070	\$ 599,920,969	\$ 570,653,609	\$ 537,090,728	\$ 495,154,858	\$ 492,573,007

Source: Alexandria Renew Enterprises

Notes: (1) These totals are as previously reported. A prior period adjustment was required in 2013 which modified these amounts.

<sup>&</sup>lt;sup>(2)</sup>GASB statement No. 68 was adopted in fiscal year 2015.

Alexandria Renew Enterprises Statistical Section

# Financial Trends, continued

Last Ten Fiscal Years

TABLE 2

Condensed Statements of Revenues, Expenses and Changes in Net Position

	<u>2017</u>	2016	2015	2014(1)	2013 <sup>(1)</sup>	2012	<u>2011</u>	2010	2009	2008
Operating Revenues			<u> </u>					<u> </u>		<del></del>
Waste Water Treatment										
Service Charges	\$ 48,971,156	\$ 47,139,072	\$ 47,773,073	\$ 48,560,009	\$ 48,807,164	\$ 43,082,976	\$ 44,093,367	\$ 42,312,986	\$ 41,715,325	\$ 39,690,012
Other	127,186	81,727	26,008	6,044	3,480	486,114	139,808	33,211	10,118	21,929
<b>Total Operating Revenues</b>	\$ 49,098,342	\$ 47,220,799	\$ 47,799,081	\$ 48,566,053	\$ 48,810,644	\$ 43,569,090	\$ 44,233,175	\$ 42,346,197	\$ 41,725,443	\$ 39,711,941
Non-operating Revenues										
Investment Income	\$ 296,581	\$ 453,508	\$ 483,340	\$ 283,273	\$ 58,128	\$ 132,671	\$ 150,169	\$ 175,253	\$ 237,065	\$ 733,564
Sale Of Property	-	-	-	1,000,000	15,203,750		199,600			
Capital Contribution	9,119,146	26,671,809	38,870,682	52,160,997	24,882,239	19,121,393	5,831,343	15,278,723	19,565,293	3,022,634
Total Non-operating										
Revenues	\$ 9,415,727	\$ 27,125,317	\$ 39,354,022	\$ 53,444,270	\$ 40,144,117	\$ 19,254,064	\$ 6,181,112	\$ 15,453,976	\$ 19,802,358	\$ 3,756,198
<b>Total Revenues</b>	\$ 58,514,069	\$ 74,346,116	\$ 87,153,103	\$ 102,010,323	\$ 88,954,761	\$ 62,823,154	\$ 50,414,287	\$ 57,800,173	\$ 61,527,801	\$ 43,468,139
Operating Expenses										
Personnel Services	\$ 11,681,207	\$ 10,885,117	\$ 11,915,152	\$ 12,464,250	\$ 12,038,490	\$ 11,468,523	\$ 10,767,106	\$ 11,984,116	\$ 11,906,871	\$ 11,029,141
Utilities	2,732,412	2,621,156	2,937,466	3,224,653	3,118,336	3,191,548	3,122,233	2,894,032	3,739,917	3,874,631
General and Administration	4,386,136	4,803,327	5,023,878	4,594,881	3,836,600	3,614,145	3,060,621	2,646,080	3,673,599	3,347,052
Other	3,868,705	4,459,109	5,245,885	5,303,574	5,475,709	6,658,616	5,477,530	5,518,656	5,280,280	5,517,226
Total Operating										
Expenses	\$ 22,668,460	\$ 22,768,709	\$ 25,122,381	\$ 25,587,358	\$ 24,469,135	\$ 24,932,832	\$ 22,427,490	\$ 23,042,884	\$ 24,600,667	\$ 23,768,050
Non-operating Expenses										
Depreciation/Amortization	\$ 18,608,157	\$ 11,737,374	\$ 10,238,996	\$ 9,549,807	\$ 10,158,793	\$ 9,645,068	\$ 9,419,173	\$ 9,263,777	\$ 8,912,081	\$ 8,757,792
Interest/Other Expenses	4,896,981	3,798,924	3,896,859	3,272,198	3,232,231	3,949,375	4,022,480	4,043,707	3,951,887	3,773,599
Total Non-operating										
Expenses	\$ 23,505,138	\$ 15,536,298	\$ 14,135,855	\$ 12,822,005	\$ 13,391,024	\$ 13,594,443	\$ 13,441,653	\$ 13,307,484	\$ 12,863,968	\$ 12,531,391
Total Expenses	\$ 46,173,598	\$ 38,305,007	\$ 39,258,236	\$ 38,409,363	\$ 37,860,159	\$ 38,527,275	\$ 35,869,143	\$ 36,350,368	\$ 37,464,635	\$ 36,299,441
Total Expenses	\$ 40,175,398	\$ 38,303,007		\$ 38,409,303	\$ 37,000,139	\$ 36,321,213	\$ 33,809,143	\$ 30,330,308	\$ 37,404,033	\$ 30,299,441
Change in Net Position	\$ 12,340,471	\$ 36,041,109	\$ 47,894,867	\$ 63,600,960	\$ 51,094,602	\$ 24,295,879	\$ 14,545,144	\$ 21,449,805	\$ 24,063,167	\$ 7,168,698
Total Net Position,										
Beginning of Year	\$ 664,079,517	\$ 628,038,408	\$ 580,143,541	\$ 525,753,787	\$ 474,813,518	\$ 450,517,639	\$ 435,972,495	\$ 413,935,457	\$ 389,872,290	\$ 382,703,592
Total Net Position, End of Year	\$ 676,419,988	\$ 664,079,517	\$ 628,038,408	\$ 589,354,747	\$ 525,908,120	\$ 474,813,518	\$ 450,517,639	\$ 435,385,262	\$ 413,935,457	\$ 389,872,290

Source: Alexandria Renew Enterprises

Notes: (1) These totals are as previously reported. Prior period adjustments were required in 2013 and 2014 which modified these amounts.

#### **Revenue Capacity Information**

Revenue capacity information is provided to assist users in understanding the factors affecting the Authority's ability to generate sources of revenue. The Authority strives to cover operating and capital costs with user fees. User fees are set by the Board and are based upon the recommendation of a third-party rates analysis designed to recover The Authority's cost of service and capital cost. Rates modeling and analysis is conducted at least annually, and more frequently as required, to set new rates and charges or affirm the efficacious nature of existing rates. Rate modeling and analysis was completed in 2015 to establish new base charges effective on October 1, 2016 and October 1, 2017. User fees are comprised of two components including a wastewater treatment charge and a fixed base charge.

The wastewater treatment charge is assessed to all customers based upon metered per gallon water usage, except that residential customers are assessed based upon a winter quarter average usage (per 1,000 gallons units). A residential customer, therefore, is billed at the greater of its winter quarter per gallon average usage or 4,000 gallons per month. Commercial customers are billed based on the actual amount of per gallon water usage. The base charge was assessed for the first time beginning on October 1, 2010, and is assessed as a fixed fee per month according to water meter size. The following table represents comparative user rate charges.

TABLE 3 User Charges
Last Ten Fiscal Years (in dollars)

	Fiscal Year	1	Vastewater Freatment nge Charge*		Service harge**
	2017	\$	6.77	\$	-
	2016	,	6.77	•	-
	2015		6.64		-
	2014		6.51		-
	2013		6.36		-
	2012		6.36		6.78
	2011		6.36		5.27
	2010		6.36		4.51
	2009		6.11		4.42
	2008		5.82		4.33
	FY 2017 Monthly		FY 2016 Monthly		Y 2015 Ionthly
Base Charge		_			
Residential Customers	\$ 8.99	\$	8.38	\$	8.38
	Water				
	<b>Meter Size</b>				
Commercial Customers	5/8"	\$	25.15		
	3/4"		25.15		
	1"		62.87		
	1-1/2"		125.75		
	2"		201.20		
	3"		377.25		
	4"		628.74		
	6"		1,257.50		
	8"		2,892.25		
00 gallons of consumption			*		

<sup>\*</sup> Based on 1,000 gallons of consumption

\*\* Per Bill

Source: Alexandria Renew Enterprises

Alexandria Renew Enterprises Statistical Section

TABLE 4

# Ten Principal Customers by Year Shown as Percentage of Revenue

Name	Туре	2017	2016	2015	2014	2013	2012	2011	2010	2009
Southern Towers	Apartments	1.06%	0.92%	1.18%	0.88%	1.13%	1.17%	1.01%	0.89%	1.10%
Watergate at Landmark	Condos	0.44%	0.49%	0.46%	0.52%	0.57%	0.53%	0.52%	0.50%	0.46%
AVENTINE OWNER LLC	Apartments	0.31%	0.30%	0.35%	0.25%					
The Seasons	Condos	0.30%	0.29%	0.28%	0.21%	0.22%	0.29%	0.28%		0.20%
The 4600 Condomium	Condos	0.25%	0.27%	0.25%		0.23%		0.24%	0.22%	0.22%
JBG Willow Run	Condos	0.23%	0.20%	0.26%	0.18%	0.22%	0.20%	0.27%		0.21%
Davidson Hotel Company	Hotel	0.20%	0.23%	0.20%		0.19%	0.17%	0.19%	0.20%	0.21%
The Fountain Condominium	Condos	0.20%	0.17%	0.19%		0.17%	0.19%			
EXCELSIOR TOWER (2000)	Apartments	0.18%	0.19%	0.17%		0.23%	0.24%	0.20%	0.17%	0.17%
Cusine Solutions	Meal Delivery Co	0.17%	0.15%							
	MG Usage	394,269	397,833	427,024	462,735	428,893	419,674	426,740	416,900	414,454
	Other Customer Usage	11,374,736	11,936,490	11,607,551	12,750,383	12,383,798	11,886,963	12,262,774	12,967,482	12,089,326
	Total Usage	11,769,005	12,334,323	12,034,575	13,213,118	12,812,691	12,306,637	12,689,514	13,384,382	12,503,780

Source: Alexandria Renew Enterprises

Data before 2009 not available

# **Debt Capacity Information**

Debt capacity information is intended to assist users in understanding the Authority's debt burden and the ability to issue new debt. The ultimate guarantors of the Authority's debt are its customers.

TABLE 5
Outstanding Debt Per Customer
September 30, 2017

	 Outstanding Debt	# of Customers	 Outstanding Debt Per Customer
VRA Revolving Loan Fund & SRF	\$ 53,826,191	26,611	\$ 2,022.70
VRA Pooled Financing Program	 72,504,324	26,611	 2,724.60
Total	\$ 126,330,515	26,611	\$ 4,747.30

Source: Alexandria Renew Enterprises

TABLE 6

			Pled	ged Revenue Co	overage (1.50 K	equired)				
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Pledged revenue	\$49,098,342	\$47,220,799	\$47,799,081	\$48,566,053	\$48,810,644	\$43,569,090	\$44,233,175	\$42,346,197	\$41,725,443	\$39,711,941
Operating expenses	(22,570,403)	(22,697,959)	(25,104,967)	(25,587,358)	(24,469,135)	(24,932,832)	(22,427,490)	(23,042,884)	(24,600,667)	(23,768,050)
Net revenues	26,527,939	24,522,840	22,694,114	22,978,695	24,341,509	18,636,258	21,805,685	19,303,313	17,124,777	15,943,891
Principal and Interest										
Requirements	13,437,631	13,122,172	12,062,715	11,676,850	10,507,144	10,924,517	11,182,678	10,159,813	9,588,780	9,139,498
Debt coverage	1.97	1.87	1.88	1.97	2.32	1.71	1.95	1.90	1.79	1.74

Source: Alexandria Renew Enterprises

# **Demographic and Economic Information**

Demographic and economic information is intended to assist users in understanding the socio-economic environment in which the Authority operates.

TABLE 7 **Demographic Statistics Population** 

Calendar		Calendar	
Year	Population	Year	Population
1960	91,023	2012	144,301
1970	110,938	2013	146,294
1980	103,217	2014	148,892
1990	111,183	2015	150,575
2000	128,283	2016	153,511
2011	141,287	2017	156,100

Source: U.S. Bureau of Census, "General Population Characteristics"

TABLE 8

# **Population Indicators**

Fiscal Year	Pe	rsonal Income (\$100)	P	er Capita Income
2017	\$	12,692,748	\$	82,683
2016		12,556,000		81,734
2015		12,183,000		79,480
2014		11,615,589		77,142
2013		11,220,201		75,146
2012		11,191,190		76,165
2011		10,588,665		73,298
2010		9,938,068		70,568
2009		9,504,599		69,113
2008		9,672,894		72,756

The BEA has revised these numbers.

Source: Alexandria Department of Planning and Zoning and the United States

Bureau of Economic Analysis

# Demographic and Economic Information, continued

Table 9

#### City of Alexandria Principal Employers Current Year (as of July 1, 2017 and Ten Years Ago)

	m.	Percentage of Total City		an.	Percentage of Total City
Current Year	Employees (1)	Employme nt <sup>(2)</sup>	Ten Years Ago	Employees (1)	Employment <sup>(2)</sup>
LARGEST PUBLIC EMPLOYERS			LARGEST PUBLIC EMPLOYERS		
U.S. Department of Commerce	1,000 & over	3.14%	U.S. Patent Trademark Office	1,000 & over	8.38%
U.S. Department of Defense	1,000 & over	3.14%	U.S. Department of Defense	1,000 & over	7.10%
Alexandria City Public Schools	1,000 & over	2.66%	City of Alexandria	1,000 & over	2.30%
City of Alexandria	1,000 & over	2.39%	Alexandria Public Schools	1,000 & over	1.90%
WMATA	500-999	0.78%	WMATA	500-999	1.30%
Northern Virginia Community College	500-999	0.78%	U.S. Department of Agriculture	500-999	0.70%
U.S. Department of Agriculture	500-999	0.78%	Northern Virginia Community College	500-999	0.60%
U.S. Department of Homeland Security	250-499	0.39%	U.S. Attorney's Office	250-499	0.20%
		14.06%			22.48%
LARGEST PRIVATE EMPLOYERS			LARGEST PRIVATE EMPLOYERS	<b>;</b>	
INOVA Health System	1,000 & over	3.14%	INOVA Alexandria Hospital	1,000 & over	1.80%
Institute for Defense Analyses	500-999	0.78%	American Building Maintenance Com	1,000 & over	1.20%
Grant Thornton LLP	500-999	0.78%	Institute of Defense Analysis	500-999	0.80%
The Home Depot	500-999	0.78%	United Postal Service (UPS)	500-999	0.70%
Clinical Oncology	250-499	0.39%	Center for Naveal Analysis	500-999	0.60%
Oblon Spivak McClelland PC	250-499	0.39%	Military Professional Resources	500-999	0.50%
Catholic Diocese of Arlington	250-499	0.39%	Grant Thornton LLP	500-999	0.50%
Giant Food	250-499	0.43%			
		7.08%			6.10%

Table 10

# City of Alexandria Unemployment Rate **Last Ten Years**

2017	2.9%
2016	2.9%
2015	3.5%
2014	4.6%
2013	4.7%
2012	4.6%
2011	4.8%
2010	4.8%
2009	2.8%
2008	2.9%

Source: Virginia Employment Commission, Local Unemployment Statistics

Source: Virginia Employment Commission
(1) Employment ranges are given to ensure confidentiality.

Percentages are based on the midpoint of employment range.

# **Operating Information**

Operating information is intended to provide information about the Authority's operations.

TABLE 11

# Number of Employees by Activity Years Ended September 30

Process		2017	2016	2015	2014
Administrative/Executive Assistant 1 1 1 0 1 1 0 1 Interceptors/Pump Stations/Chem Feed 9 9 9 9 9 9 10 Operating Shift D 6 4 5 5 5 5 Operating Shift B 6 6 5 5 5 6 6 Maintenance Manager 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Interceptors/Pump Stations/Chem Feed   9   9   9   9   10     Operating Shift D   6   4   5   5   5   6     Maintenance Manager   1   1   1   1   1     Thickening/Dewater/Prepast/Digestion   9   9   9   9   9   6     BRB's/Blowers/UV   6   7   7   7   8     Operating Shift C   5   4   5   5   5     Operating Shift A   6   5   5   4   5   5     Operating Shift A   6   5   5   4   5   5     Operating Shift A   6   5   5   4   5   5     Operating Shift E   0   5   4   1     Apprentices   10   10   15   14      Engineering Engineering   1   1   1   1   1     Engineering & Facilities   5   3   2   4     Information Systems   3   3   3   2     Program Manager   1   1   1   1   1     Safety Manager   0   1   1   1   1     Safety Manager   1   1   1   1   1     Quality Services/Sustainability   0   1   1   1   1     Quality Services/Sustainability   0   1   1   1   1     Quality Assurance   1   1   1   1   1   1     Laboratory   4   5   5   5   5     Sustainability/Regulatory   0   1   2   0      Finance   Chief Financial Officer   1   0   1   1   1     Controller   1   1   1   1   1     Senior Accountant/Acctg Clerk   3   2   2   2   2     Administrative/Executive Assistant   1   1   0   1     Purchasing Manager, Buyer, Contracts   2   2   2   3   3      Administration   2   2   2   2   5     Communications   4   4   3   0     Customer Service   2   2   2   1		6	3	3	4
Operating Shift D         6         4         5         5           Operating Shift B         6         5         5         6           Maintenance Manager         1         2         2         5         5         5         5         5         5         5         5         5         3         3         3         2         2         4         4         5         5         5         5         4         1         5         5         5         3         3         3         3         2         2         4         1         1         1         1         1         1         1         1         1         <					0
Operating Shift B		9	9		
Maintenance Manager         1         1         1         1           Thickening/Dewater/Prepast/Digestion         9         1         1         1		6			
Thickening/Dewater/Prepast/Digestion BRB's/Blowers/UV 6 7 7 8 Operating Shift C 5 4 4 5 5 Operating Shift A 6 5 4 4 5 Operating Shift A 6 5 5 4 5 Operating Shift A 6 5 5 4 5 Planners/Schedulers/Inv Control 3 3 3 3 3 2 Operating Shift E 0 5 5 4 1 1 Apprentices 10 10 10 15 14  Engineering Chief Engr Planning 1 1 1 1 1 1 1 Engineering & Facilities 5 3 3 2 4 4 Information Systems 3 3 3 3 2 Program Manager 1 1 1 1 1 1 1 Safety Manager 0 1 1 1 1 1 1 Safety Manager 0 1 1 1 1 1 1 Chief Sustainability Chief Sustainability Chief Sustainability 0 1 1 1 1 0 Quality Services/Sustainability Chief Sustainability 0 1 1 1 1 0 Chief Sustainability 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		6	5	5	6
BRB's/Blowers/UV 6 7 7 8 8 Operating Shift C 5 4 5 5 5 5 Operating Shift A 6 6 5 4 5 5 5 5 Operating Shift A 6 6 5 4 5 5 5 Operating Shift A 6 6 5 4 5 4 5 5 5 Operating Shift E 0 0 5 4 1 1 Apprentices 10 10 10 15 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	1	1	1
Operating Shift C         5         4         5         5           Operating Shift A         6         5         4         5           Planners/Schedulers/Inv Control         3         3         3         2           Operating Shift E         0         5         4         1           Apprentices         10         10         15         14           Engineering Shift E         0         5         4         1           Apprentices           Chief Engr Planning         1		9	9	9	
Operating Shift A         6         5         4         5           Planners/Schedulers/Inv Control         3         3         3         2           Operating Shift E         0         5         4         1           Apprentices         10         10         15         14           Engineering           Chief Engr Planning         1	BRB's/Blowers/UV	6			
Planners/Schedulers/Inv Control         3         3         3         2           Operating Shift E         0         5         4         1           Apprentices         10         10         15         14           Engineering         1         1         1         1         1           Engineering & Facilities         5         3         2         4           Information Systems         3         3         3         2           Program Manager         1         1         1         1         1           Safety Manager         0         1 <td>Operating Shift C</td> <td>5</td> <td>4</td> <td>5</td> <td>5</td>	Operating Shift C	5	4	5	5
Operating Shift E         0         5         4         1           Apprentices         10         10         15         14           Engineering           Chief Engr Planning         1         1         1         1         1           Engineering & Facilities         5         3         2         4           Information Systems         3         3         3         2           Program Manager         1         1         1         1           Safety Manager         0         1         1         1           Quality Services/Sustainability           Chief Sustainability         0         1         1         0           Quality Assurance         1         1         1         1         1           Quality Assurance         1	Operating Shift A	6	5	4	
Chief Engr Planning	Planners/Schedulers/Inv Control	3		3	2
Engineering   1	Operating Shift E	0	5	4	1
Chief Engr Planning       1	Apprentices	10	10	15	14
Engineering & Facilities   5   3   2   4     Information Systems   3   3   3   3   2     Program Manager   1   1   1   1   1     Safety Manager   0   1   1   1   1     Quality Services/Sustainability   0   1   1   1   1     Quality Assurance   1   1   1   1   1   1     Laboratory   4   5   5   5   5     Sustainability/Regulatory   0   1   2   0      Finance   Chief Financial Officer   1   0   1   1   1     Controller   1   1   1   1   1     Senior Accountant/Acctg Clerk   3   2   2   2   2     Administrative/Executive Assistant   1   1   0   1     Purchasing Manager, Buyer, Contracts   2   3   3   3      Human Resources   4   4   3   3     Administration   2   2   2   2   5     Communications   4   4   4   3   3   0     Customer Service   2   2   2   2   1	Engineering				
Engineering & Facilities   5   3   2   4     Information Systems   3   3   3   3   2     Program Manager   1   1   1   1   1     Safety Manager   0   1   1   1   1     Quality Services/Sustainability   0   1   1   1   1     Quality Assurance   1   1   1   1   1   1     Laboratory   4   5   5   5   5     Sustainability/Regulatory   0   1   2   0      Finance   Chief Financial Officer   1   0   1   1   1     Controller   1   1   1   1   1     Senior Accountant/Acctg Clerk   3   2   2   2   2     Administrative/Executive Assistant   1   1   0   1     Purchasing Manager, Buyer, Contracts   2   3   3   3      Human Resources   4   4   3   3     Administration   2   2   2   2   5     Communications   4   4   4   3   3   0     Customer Service   2   2   2   1	Chief Engr Planning	1	1	1	1
Information Systems		5	3	2	4
Program Manager       1       1       1       1         Safety Manager       0       1       1       1         Quality Services/Sustainability         Chief Sustainability       0       1       1       0         Quality Assurance       1       1       1       1       1         Laboratory       4       5       5       5       5         Sustainability/Regulatory       0       1       2       0         Finance         Chief Financial Officer       1       0       1       1       1         Controller       1       2       2       2       3		3			2
Safety Manager       0       1       1       1         Quality Services/Sustainability         Chief Sustainability       0       1       1       0         Quality Assurance       1       1       1       1       1         Laboratory       4       5       5       5       5         Sustainability/Regulatory       0       1       2       0         Finance         Chief Financial Officer       1       0       1       1       1         Controller       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       0       1       1       0       1       1       0       1       1       0					
Chief Sustainability       0       1       1       0         Quality Assurance       1       1       1       1         Laboratory       4       5       5       5         Sustainability/Regulatory       0       1       2       0         Finance         Chief Financial Officer       1       0       1       1       1         Controller       1       0       1       1       1       1       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       0       1       1       0       1       1       0       1       1       0       1       1       0       1       0       1       0       1       0       1       0       0       1       0 <td< td=""><td></td><td>0</td><td>1</td><td>1</td><td>1</td></td<>		0	1	1	1
Chief Sustainability       0       1       1       0         Quality Assurance       1       1       1       1         Laboratory       4       5       5       5         Sustainability/Regulatory       0       1       2       0         Finance         Chief Financial Officer       1       0       1       1       1         Controller       1       0       1       1       1       1       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1       1       0       1       1       0       1       1       0       1       1       0       1       1       0       1       0       1       0       1       0       1       0       0       1       0 <td< td=""><td>Quality Services/Sustainability</td><td></td><td></td><td></td><td></td></td<>	Quality Services/Sustainability				
Quality Assurance       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       2       0       0       0       1       2       0       0       0       1       2       0       0       0       1       2       0       0       0       1		0	1	1	0
Laboratory       4       5       5       5         Sustainability/Regulatory       0       1       2       0         Finance         Chief Financial Officer       1       0       1       1         Controller       1       1       1       1       1         Senior Accountant/Acctg Clerk       3       2       2       2       2       2         Administrative/Executive Assistant       1       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       2       1		1	1	1	1
Finance         Chief Financial Officer         1         0         1         0         1         1         1         1         1         0         1         1         1         1         0         1         1         1         1         0         1         1         1         1         1         0         1         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         0         1         1         1         1         0         3         3         3         3         3         3         3         3         3         3         3         3		4	5	5	5
Chief Financial Officer       1       0       1       1         Controller       1       1       1       1         Senior Accountant/Acctg Clerk       3       2       2       2         Administrative/Executive Assistant       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1					
Controller       1       1       1       1         Senior Accountant/Acctg Clerk       3       2       2       2         Administrative/Executive Assistant       1       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1	Finance				
Controller       1       1       1       1         Senior Accountant/Acctg Clerk       3       2       2       2         Administrative/Executive Assistant       1       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1	Chief Financial Officer	1	0	1	1
Senior Accountant/Acctg Clerk       3       2       2       2         Administrative/Executive Assistant       1       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1		1		1	1
Administrative/Executive Assistant       1       1       0       1         Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources         Human Resources       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1					
Purchasing Manager, Buyer, Contracts       2       3       3       3         Human Resources       2       2       2       3       3         Human Resources       2       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1					
Human Resources       2       2       3       3         Administration       2       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       2       1					
Administration Administration 2 2 2 5 Communications 4 4 3 0 Customer Service 2 2 2 1	Human Resources				
Administration Administration 2 2 2 5 Communications 4 4 3 0 Customer Service 2 2 2 1	Human Resources	2	2	3	3
Administration       2       2       2       5         Communications       4       4       3       0         Customer Service       2       2       2       1					_
Communications 4 4 3 0 Customer Service 2 2 2 1	Administration				
Communications 4 4 3 0 Customer Service 2 2 2 1	Administration	2	2	2	5
Customer Service 2 2 2 1					
					1
					99

Source: Alexandria Renew Enterprises

Data before 2014 not available

# **Operating Information**

**TABLE 12** 

#### **ALEXANDRIA RENEW ENTERPRISES**

# Number of Customers and Consumption September 30, 2017

Fiscal Year	Customer Accounts	MG Treated	Fairfax MG Treated
2017	26,611	11,769	5,941
2016	26,440	12,334	5,960
2015	26,333	12,035	6112
2014	26,848	13,213	6698
2013	26,330	12,813	6633
2012	26,380	12,307	6534
2011	26,222	12,690	7134
2010	25,916	13,384	7518
2009	25,312	12,504	7109
2008	25,879	12,822	6826

Source: Alexandria Renew Enterprises

Note: The amount of wastewater treated includes flow generated by the City customers and portions of the County which is outside of the City. The amount of wastewater that flows outside the County is metered and included in Table 12 above.

# **Operating Information**

# **TABLE 13**

#### **ALEXANDRIA RENEW ENTERPRISES**

# Wastwater Treatment Capacity and Infrastructure Assets Owned For the Fiscal Year Ending September 30, 2017

Wastewater treatment capacity:		
wastewater treatment capacity.	Design Capacity	54 MGD (million gallons per day)
Asset		Capacity:
Four Mile Run Pump Station Slater's Lane Pump Station Potomac Yard Pump Station Mark Center	Pump Station Pump Station Pump Station Pump Station	Firm pumping capacity 11.3 MGD Firm pumping capacity .75 MGD Firm pumping capacity 9.5 MGD Firm pumping capacity 1.6 MGD
Bush Hill Service Chamber Jefferson at Carlyle Mills Service Chamber	Lift Station Lift Station	Firm pumping capacity .18 MGD Firm pumping capacity .525 MGD
Holmes Run Trunk Sewer	Gravity Sewer	Design Capacity varies from 71.5 MGD at Hooff's Run to 18.9 MGD at the City Limits
Commonwealth Interceptor	Gravity Sewer & Force Main	Design Capacity varies from 97.0 MGD at the WRRF to 13 MGD at the Potomac
Potomac Yard Trunk Sewer	Gravity Sewer	Yards Pump Station force main discharge. Design Capacity varies from 17MGD at the WRRF to 13 MGD at the Potomac Yards
Potomac Interceptor	Gravity Sewer	Pump Station force main discharge.  Design Capacity varies from 18.7 MGD at the WRRF to 11.0 MGD at Pendleton St.

The City owns the collection system; Alexandria Renew Enterprises owns the intercepting sewer system, the pump stations and the treatment facility.

Source: Alexandria Renew Enterprises



Alexandria Renew Enterprises



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Alexandria Renew Enterprises



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