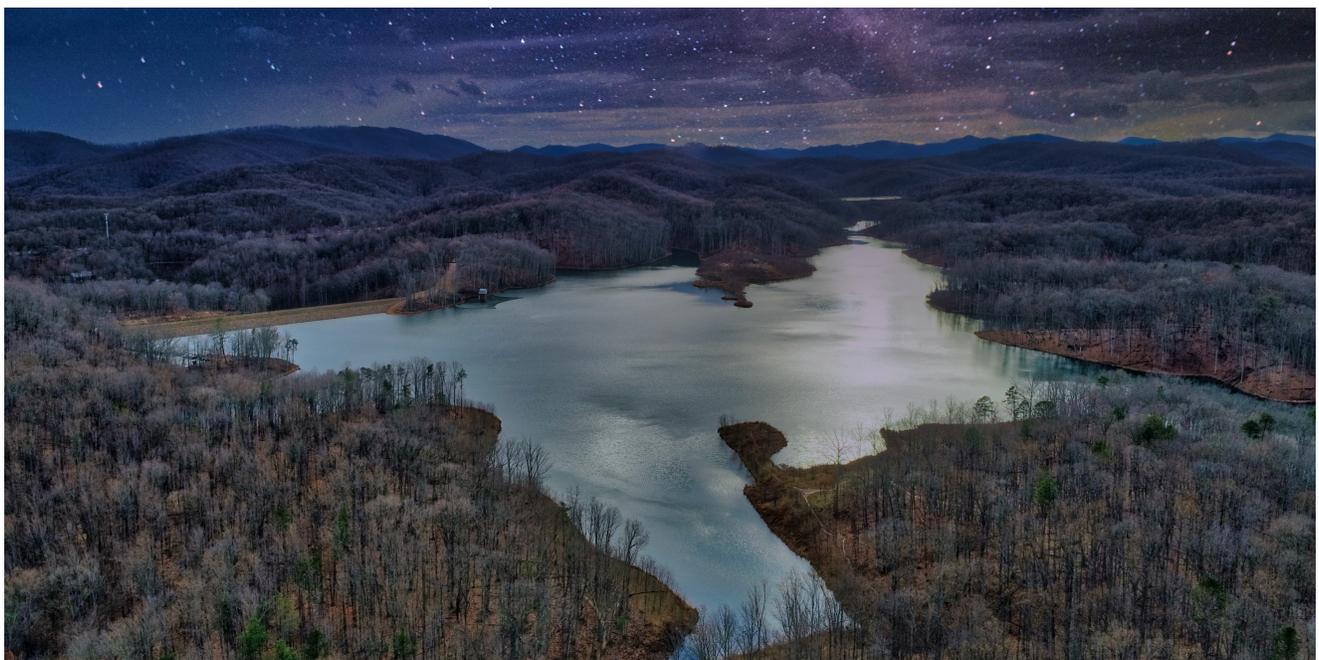




**COMPREHENSIVE ANNUAL FINANCIAL REPORT
YEARS ENDED JUNE 30, 2020 AND 2019**

Serving Charlottesville & Albemarle County, Virginia



**RIVANNA WATER & SEWER AUTHORITY
CHARLOTTESVILLE, VIRGINIA**

COMPREHENSIVE ANNUAL FINANCIAL REPORT

YEARS ENDED JUNE 30, 2020 AND 2019

Prepared By:

Department of Finance and Administration

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RIVANNA WATER & SEWER AUTHORITY

Comprehensive Annual Financial Report
Years Ended June 30, 2020 and 2019

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RIVANNA WATER & SEWER AUTHORITY

Comprehensive Annual Financial Report
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Lloyd Snook

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William I. Mawyer, Jr., P.E.

DIRECTOR OF FINANCE/ADMINISTRATION

Lonzy E. Wood, III

GENERAL COUNSEL

McGuire Woods, LLP
Charlottesville, Virginia

TRUSTEE AND ESCROW AGENT

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October 26, 2020

To the Board of Directors
Rivanna Water and Sewer Authority
Charlottesville, Virginia

The Comprehensive Annual Financial Report (CAFR) of the Rivanna Water and Sewer Authority (the Authority) for the fiscal year ended June 30, 2020 is submitted herewith. This report has been prepared in conformity with the reporting and accounting standards promulgated by the Government Accounting Standards Board and the Financial Accounting Standards Board and with the accounting and reporting standards for enterprise funds set out by the Government Finance Officers Association of the United States and Canada, with such modifications as apply to our status as an independently chartered corporation.

Based upon a comprehensive framework of internal control that it has established for this purpose, management assumes responsibility for the completeness and reliability of the information contained in this report. The objective of internal control is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements, because the cost of each internal control should not outweigh the potential benefit.

Management's discussion and analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

ORGANIZATION AND SERVICES PROVIDED

The Rivanna Water and Sewer Authority is a regional non-profit public corporation and political subdivision of the Commonwealth of Virginia chartered in 1972 under the Virginia Water and Waste Authorities Act (1950, as amended), that supplies drinking water to and treats the wastewater of Charlottesville (City) and certain areas of Albemarle County (County). The Authority is a wholesale agency and bills monthly both Charlottesville and the Albemarle County Service Authority, which handle retail distribution of water and collection of sewage in their respective service areas.

The Authority is charged to acquire, finance, construct, operate and maintain facilities for the impoundment, production, storage, treatment and transmission of potable water and for the interception, treatment and discharge of wastewater. The Authority operates under the terms of a Service Agreement signed June 12, 1973 by the officers of the Charlottesville City Council, the Albemarle County Board of Supervisors, the Albemarle County Service Authority and the Rivanna Water and Sewer Authority. The Authority has determined that it is not part of the reporting entity of either the City of Charlottesville or the County of Albemarle and will not be included in the financial report of either (see Note 1 to the Financial Statements).

ORGANIZATION AND SERVICES PROVIDED: (CONTINUED)

The Authority is governed by a seven-member Board of Directors (Board). The Board appoints an Executive Director, who manages Authority operations under its direction. The Authority is now organized in administration, laboratory, engineering, maintenance, water, and wastewater departments. The Authority operates and maintains six water treatment plants and four wastewater treatment plants and the associated water storage facilities, pump stations, transmission mains and interceptor sewers. Retail distribution of water and collection of wastewater is performed by the Authority's two customers: the City of Charlottesville's Utilities Division and the Albemarle County Service Authority.

JOINT ADMINISTRATION

By mutual agreement of the respective Boards of Directors, the Authority currently shares administrative staff and office space with the Rivanna Solid Waste Authority, which is billed monthly for its portion of the costs. Administrative procedures were implemented to ensure proper segregation of funds, purchasing activity, personnel, and similar matters. The Authorities also agreed to administer joint Safety Regulations and a joint Safety Program.

ECONOMIC CONDITION AND PROSPECTS

Both Charlottesville and Albemarle County enjoyed low unemployment rates, steady economic growth and high bond ratings. The local economy was dramatically affected by the Covid-19 pandemic like the rest of the state and nation. In December 2019, the local area unemployment rate was 2.1%. By April of 2020, the unemployment rate jumped to 9.5%. The June employment situation did improve some with the rate of unemployment decreasing to 7.9%.

The water and wastewater services of the Authority are considered an essential service and none of our facilities were closed. The Administrative offices were closed to the public up to June 2020, however, most staff were still working in the office as business continued for such things as deliveries, processing transactions, mail processing, bid openings, employee onboarding, etc. Some employees were on staggered schedules and others in a work-from-home status. The Authority did not have to furlough any of our employees. There were no impacts to our operations and budget. Water production did not decline (annual flows were within budget targets) and vendor supply lines were maintained.

The University of Virginia provides a significant buffer against large swings in the economy of our service area. In addition, the Charlottesville urban area is a major retail trade center for the surrounding region. Housing growth remains steady. According to the second quarter Building Report published by the County of Albemarle, building permits were issued for 324 new dwellings units during the April – June 2020 time period. During the same period in the previous year, 198 new dwelling units were permitted. This shows a continued strong housing and construction market. Although most growth occurs in County developments, in-filling in Charlottesville continues.

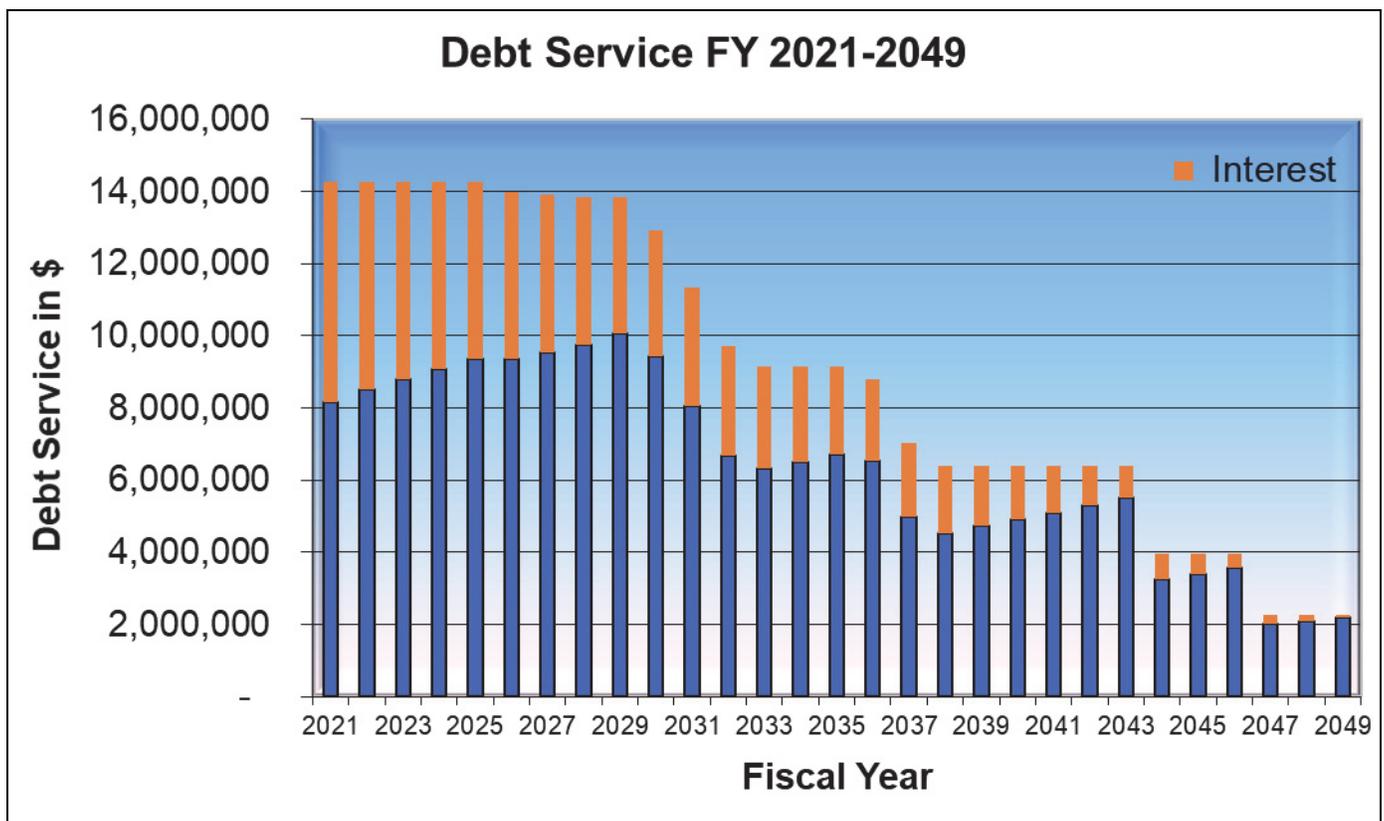
The Charlottesville-Albemarle area attracts many visitors to its historic sites, and the wine industry has been popular and has served to help benefit the tourism sector of the regional economy. The travel and tourism industry make a substantial contribution to the local economy. The hardest hit sector of the economy and employment sector is the leisure and hospitality industry. The number of jobs decreased 35% over the 12-month comparison. An August preliminary report showed this had improved to a drop of 21%. This industry will continue to improve in the coming year.

ECONOMIC CONDITION AND PROSPECTS (CONTINUED)

The University of Virginia's capital projects will continue to be an impetus of growth for water and sewer services. Our current Capital Improvement Program, as discussed below, reflects the Authority's response to the current and projected service demands on our facilities and to the need to respond to regulatory requirements.

LONG-TERM FINANCIAL PLANNING

Despite the significant infrastructure needs identified in the CIP, the Authority is positioned to provide for these needs by using more cash up front for projects and having a debt and rate structure (and a system for increasing debt charges to our customers) that will accommodate more debt in the future. The Authority has slowly but consistently been implementing rate increases to pay for such infrastructure needs in 5-year increments. This practice encourages the creation of reserves for capital spending until a project is started and partially financed with debt proceeds. As shown in the following graph, which represents debt service payments on existing debt, the Authority has a consistent to a declining debt structure for the next 10 years with large declines thereafter. Additionally, the rates are currently programmed to generate \$16.9 million annually in debt service revenues; however, the water and wastewater capital needs will require additional rate increases in the future to maintain solid cash positions and fund future debt service needs.



MAJOR INITIATIVES

The Authority developed and Board of Directors approved a strategic plan several years ago, and our major initiatives are focused on enhancing our strategic goals as shown below:



Several efforts were being worked on during the year such as implementation of a document management system that will create a paperless invoicing system, publishing bi-monthly newsletters to employees, creating a new employee orientation video, establishing a secure work-from-home remote access capability in response to the COVID-19 pandemic, and beginning implementation of a computer maintenance management system (CMMS) that will be a large part of a new asset management program.

There are several capital improvements that were contracted for construction this year with the Observatory, South Rivanna, and Crozet water treatment plant improvements projects. These three projects are estimated to cost \$51.5 million. The plants must stay on-line during the construction process which takes great efforts to plan out the improvements and coordinate with operating staff to meet our production and construction goals. The Observatory lease between the University of Virginia and the Authority was negotiated and approved, along with updating several access easements, for a 49-year term with an option to renew for an additional 50 years. This was a huge effort that involved many staff from both entities.

Future Projects:

Two of the largest projects in the next 5 years.

- Beaver Creek dam and raw water pump station projects. The current dam does not meet dam safety standards and will undergo spillway modifications which will impact the existing raw water pump station. Estimated costs of these projects is \$26.9 million.
- The other large project is a pipeline and pump station replacement for the raw water line from the Ragged Mountain reservoir to the Observatory water treatment plant. The current pipeline is 110 years old in some places. The project is estimated to cost \$24 million.

See the MD&A for more information.

BUDGETARY CONTROLS AND FINANCIAL POLICIES

The Authority is required by the Service Agreement to adopt an annual budget for setting wholesale rates as well as for fiscal guidance to staff. Separate fiscal year budgets are currently prepared for six rate centers to include direct costs and allocations of administrative, engineering, maintenance, lab and debt service expenses. Until the Service Agreement was amended in August 2015, projections of flows and expenses were used to calculate rates per thousand gallons for the two Urban rate centers and flat monthly charges for the other rate centers to cover both operating and debt service costs. Actual flows vary each year from the flows estimated when the rates were set, due to unpredictable weather conditions. Effective with the October 2015 billing, RWSA began charging a fixed monthly rate for the Urban rate center debt service costs while continuing to charge operations rates per thousand gallons. This was a very positive change, because RWSA is required to make fixed debt service payments each fiscal year, and it is important to have a fixed revenue source to pay those expenses.

A proposed budget for each fiscal year is prepared by the Authority Directors and the Executive Director and submitted to the Board of Directors, usually in February, with a public hearing held on the proposed rates in April or May. All budget items lapse at the end of the fiscal year except capital commitments. It should be noted that the budget is prepared for internal use and does not reflect the accrual basis of accounting. An example of this is that principal payments on debt are shown as an expense.

Budgetary compliance is monitored and reported to the Board by the Director of Finance & Administration and the Executive Director. Projections of both revenues and expenses are understood to reflect anticipated service levels and to incorporate a variety of economic, climatic, and demographic forecasts. Variances from budget line items are examined at least monthly to assure a reasonable relation between actual costs and actual service levels, emergencies, or economic conditions. The Authority Board of Directors adopted in August 2011 certain financial policies that help guide the capital and operating budgeting process by defining reserves, reserve goals, uses of discretionary funds, and setting financial targets on debt and capital funding. The financial policy was revised in October 2014 for continuing disclosure and post issuance compliance requirements.

The Authority's accounting records are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned and expenses are recorded when incurred, without regard to receipt or payment of cash. Current controls provide reasonable assurance that the Authority's assets are properly recorded and protected and that the financial data may be used with confidence in the preparation of historical reports and projections. Accounting control is maintained by segregation of duties and data security systems in all areas of record keeping, disbursements, and purchasing authority. These controls are reviewed regularly by staff and are evaluated as part of the annual financial audit (see Annual Audit section below).

The Authority implemented the financial reporting provisions of Governmental Accounting Standards Board (GASB) Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period, at the beginning of fiscal year ended June 30, 2019. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense when incurred instead of being included in the historical cost of constructed capital assets.

ANNUAL AUDIT

The Code of Virginia, the June 12, 1973 Service Agreement, the Trust Agreement and its Supplements require an annual audit of the books and records of the Authority. The opinion of our independent certified public accountants is included in the Financial Section.

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to Rivanna Water and Sewer Authority for its comprehensive annual financial report for the fiscal year ended June 30, 2019. To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

ACKNOWLEDGEMENTS

The help of the Authority's staff, especially Kathy Ware, Senior Accountant, and of our certified public accountants is gratefully acknowledged. Such help and the Board of Directors' support and commitment to financial reporting excellence are essential to the preparation of this report.

Respectfully submitted,



William I. Mawyer, PE
Executive Director



Lonzy E. Wood, III, CPA
Director of Finance and Administration



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Rivanna Water & Sewer Authority
Virginia**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

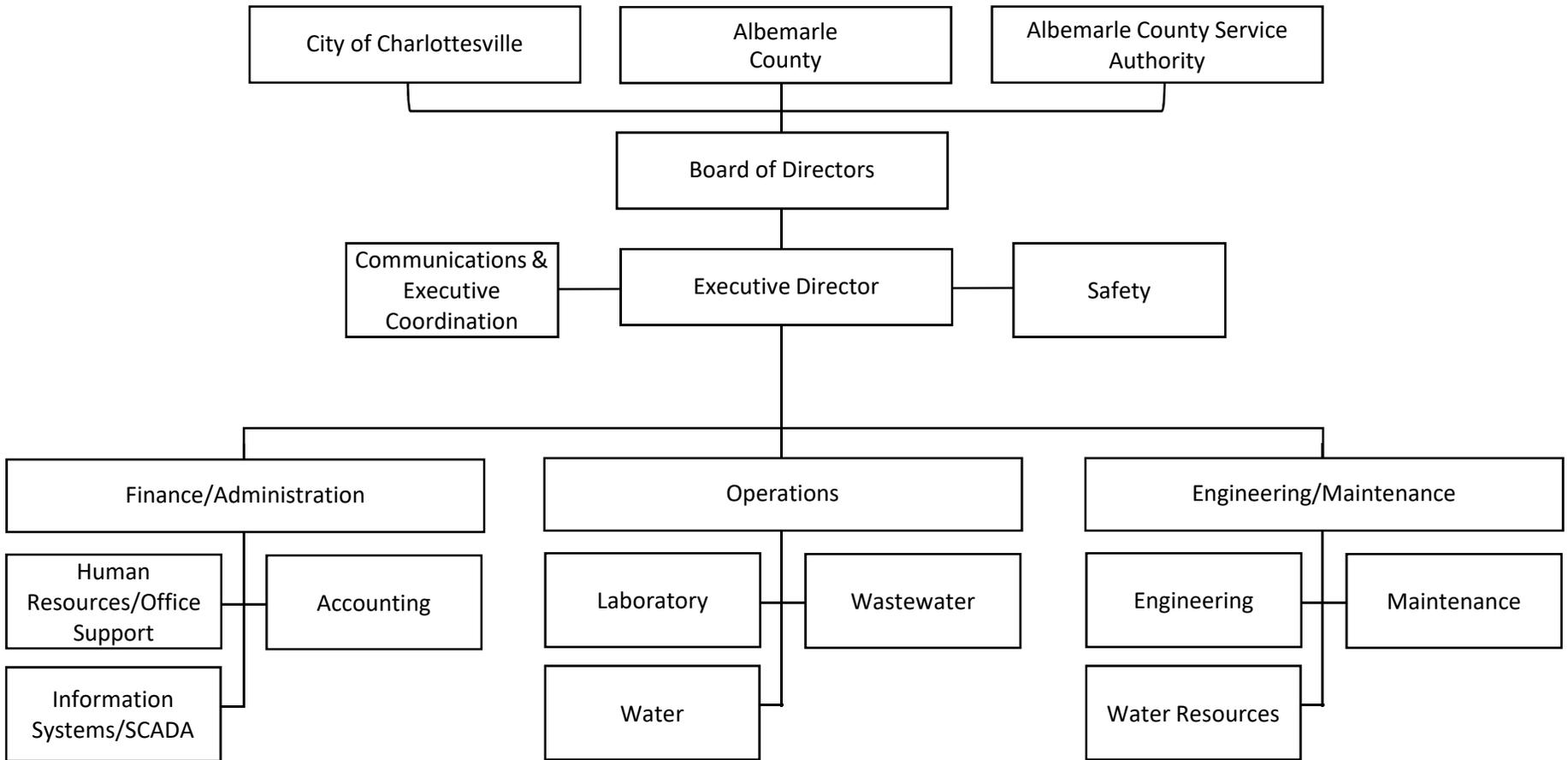
Christopher P. Morrill

Executive Director/CEO

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Rivanna Water & Sewer Authority

Organizational Chart



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Independent Auditors' Report

**To the Board of Directors
Rivanna Water & Sewer Authority
Charlottesville, Virginia**

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of Rivanna Water & Sewer Authority, as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of Rivanna Water & Sewer Authority, as of June 30, 2020 and 2019, and the changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and schedules related to pension and OPEB funding on pages 15-24 and 77-82 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise Rivanna Water & Sewer Authority's 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 October 26, 2020, on our consideration of Rivanna Water & Sewer Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Rivanna Water & Sewer Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Rivanna Water & Sewer Authority's internal control over financial reporting and compliance.

Robinson, Farmer Cox Associates
Charlottesville, Virginia
October 26, 2020

Management's Discussion and Analysis

To the Board of Directors Rivanna Water & Sewer Authority Charlottesville, Virginia

As management of the Rivanna Water & Sewer Authority (the Authority), we offer readers of our financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ended June 30, 2020. We encourage readers to consider the information presented here in conjunction with additional information that we have furnished in our letter of transmittal, which can be found on pages 3 through 8 of this report.

Overview of the Financial Statements:

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

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

The statement of net position presents information on the Authority's assets, deferred outflows of resources, liabilities, and deferred inflow of resources with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

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

The basic enterprise fund financial statements can be found on pages 26 through 29 of this report.

Notes to the financial statements. The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found on pages 31 through 74 of this report.

Required supplementary information. This report also includes required supplementary information concerning the Authority's progress in funding its obligation to provide pension and other postemployment benefits to its employees. It is located immediately following the notes to financial statements.

Financial Highlights:

- The Authority's total net position increased consistently the last two years by \$4.4 million in FY 2020 and by \$5.2 million in FY 2019.
- Construction in progress increased by \$6.9 million this year as new projects were in initial phases of construction. Buildings and operating equipment net of depreciation decreased by \$3.1 million due to normal depreciation.

Financial Highlights: (Continued)

- Regular debt service payments caused noncurrent liabilities to decrease by \$8.5 million this year. No new debt was issued during the current year.
- Operating revenues increased by \$157,000 due to increased rates and the effects of significant wastewater flow from record rainfall in the prior fiscal year.
- Total operating expenses increased \$1.2 million or 5% with half of that being increases in depreciation expense.

Financial Analysis:

The Authority's assets and deferred outflows exceeded its liabilities and deferred inflows (net position) by \$156.7 million at fiscal year end June 30, 2020. Of this amount, \$32.2 million (unrestricted net position) may be used to meet the Authority's normal ongoing operating obligations to customers and creditors while \$4.6 million of net position is restricted for the bondholders. Total net position increased 3% and 4% in each of the past two years respectively, which is an indication that the Authority's overall financial position has improved. The net investment in capital assets increased by \$6.5 million this year primarily due to the construction spending. The largest portion of the Authority's net position (77%) reflects its investment in capital assets, net of depreciation and related debt outstanding that was used to acquire those assets. The Authority uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although the Authority's investment in capital assets is reported net of related debt, the resources needed to repay this debt are derived from the revenue generating capability of these capital assets and not from the capital assets themselves.

	Net Position		
	2020	2019	2018
Current and other assets	\$ 74,615,294	\$ 82,727,243	\$ 47,155,939
Capital assets	281,866,981	278,086,565	275,272,861
Total assets	<u>\$ 356,482,275</u>	<u>\$ 360,813,808</u>	<u>\$ 322,428,800</u>
Deferred outflows of resources	<u>\$ 1,602,441</u>	<u>\$ 1,140,986</u>	<u>\$ 1,315,467</u>
Noncurrent liabilities	\$ 187,362,575	\$ 195,819,731	\$ 164,657,769
Current liabilities	13,236,955	13,398,622	11,447,549
Total liabilities	<u>\$ 200,599,530</u>	<u>\$ 209,218,353</u>	<u>\$ 176,105,318</u>
Deferred inflows of resources	<u>\$ 787,351</u>	<u>\$ 468,212</u>	<u>\$ 565,983</u>
Net position:			
Net investment in capital assets	\$ 119,947,988	\$ 113,396,071	\$ 114,137,186
Restricted for bond covenants	4,552,818	4,278,445	3,794,293
Unrestricted	32,197,029	34,593,713	29,141,487
Total net position	<u>\$ 156,697,835</u>	<u>\$ 152,268,229</u>	<u>\$ 147,072,966</u>

Operating revenues increased by \$157,000 for FY 2020 compared to a \$5.15 million increase last year. Metered water sales increased 6% over last year's charges, or \$980,000, which was slightly below targeted budget projections for FY 2020. For FY 2019, there was an 8% increase in revenues over the previous year which was on budget targets. Wastewater service charge revenues decreased 4% from FY 2019 revenues. The revenues for FY 2019 were much higher than budget target due to higher than normal precipitation for that year. Flows returned to normal in FY 2020 which is why there is a drop in the revenue in this comparison. FY 2020 wastewater revenues were 3% higher than budget estimates.

Financial Analysis: (Continued)

Total operating expenses increased by \$1.2 million or 5%, for FY 2020 primarily due personnel cost and depreciation expense increases. A large number of projects (roughly \$50 million in value) were completed and capitalized in FY 2019 which increased depreciation expense by 9% for FY 2020. There were two new positions added for FY 2020, a 13% increase in health insurance costs and additional GASB pension liability driving the personnel costs increases. Key elements of these changes are explained further in the Review of Operations section.

	Changes in Net Position		
	2020	2019	2018
Revenues:			
Operating revenues			
Metered water sales	\$ 16,196,450	\$ 15,216,180	\$ 14,034,080
Wastewater service charges	17,999,007	18,821,857	14,858,101
Nonoperating revenues			
Investment earnings	1,243,884	1,599,486	525,039
Buck Mountain revenue	57,100	111,700	125,900
Administrative reimbursement	471,937	474,246	436,329
Other revenues	588,146	380,737	302,920
Total revenues	<u>\$ 36,556,524</u>	<u>\$ 36,604,206</u>	<u>\$ 30,282,369</u>
Expenses:			
Operating expenses			
Personnel costs	\$ 8,693,477	\$ 7,728,340	\$ 7,385,978
Professional services	1,048,839	994,207	738,823
Other services and charges	3,676,790	3,770,051	3,341,421
Operations and maintenance	5,423,447	5,799,962	4,169,065
Depreciation expense	7,330,242	6,704,908	5,773,757
Nonoperating expenses			
Interest expense	5,733,428	5,947,988	2,643,801
Debt issuance costs	220,695	463,487	-
Total expenses	<u>\$ 32,126,918</u>	<u>\$ 31,408,943</u>	<u>\$ 24,052,845</u>
Change in net position	<u>\$ 4,429,606</u>	<u>\$ 5,195,263</u>	<u>\$ 6,229,524</u>
Net position, beginning of year, as restated	<u>152,268,229</u>	<u>147,072,966</u>	<u>140,843,442</u>
Net position, end of year	<u>\$ 156,697,835</u>	<u>\$ 152,268,229</u>	<u>\$ 147,072,966</u>

Capital Asset and Debt Administration:

Capital Assets - The Authority's investment in capital assets net of accumulated depreciation increased 1% in the current year and 1% in the prior year because of costs incurred on construction projects noted below less depreciation on all assets of \$7.3 million and \$6.7 million respectively for FY 2020 and FY 2019. Construction costs incurred were \$10.9 million for FY 2020 and \$9.1 million for FY 2019. More detailed information on the Authority's capital assets is presented in Notes 4 and 5 of the notes to the financial statements and is addressed further in the Review of Operations section below.

Capital Asset and Debt Administration: (Continued)

The various categories of capital assets net of depreciation at the end of the past three fiscal years are as follows:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Land and improvements	\$ 12,310,763	\$ 12,310,763	\$ 10,604,850
Buildings and operating equipment	253,645,028	256,781,051	210,317,886
Trucks and autos	500,348	519,291	200,137
Office equipment	8,793	11,665	1,001
Construction in progress	15,402,049	8,463,765	54,148,987
Total capital assets, net	<u>\$ 281,866,981</u>	<u>\$ 278,086,535</u>	<u>\$ 275,272,861</u>

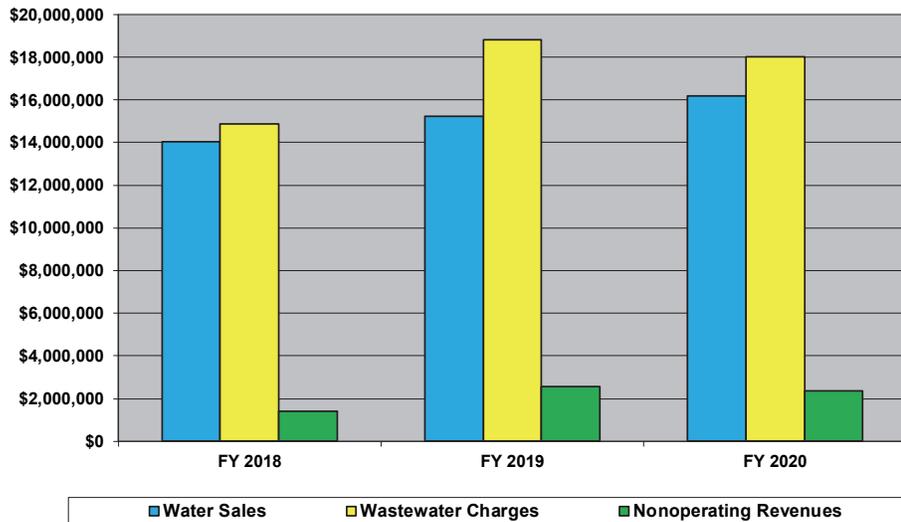
Major capital asset activity for the current fiscal year included:

Crozet WTP Expansion	\$ 4,327,361
S. Rivanna WTP Improvements	1,228,296
Observatory WTP Improvements	868,706
Valve Repair-Replacement (Phase 2)	760,244
S. Rivanna Reservoir to Ragged Mtn. Reservoir Water Line R/W	650,459
Piney Mountain Tank Rehabilitation	397,927
Birdwood Golf Course Waterline	334,679
Moore's Creek AWRRF Odor Control-Phase 2	258,360
Buck's Elbow Ground Storage Tank Chlorination System	212,978
Security Enhancements	203,489
Interceptor Sewer & Manhole Repair-Phase 1	200,170
MCAWRRF Master Plan	157,177
Glenmore Secondary Clarifier Coating	138,307
New Raw Water Pump Station & Intake (BCR)	120,936
Scottsville WTP Finished Water Flow Meter	119,851
Finished Water System Master Plan	118,897
Airport Rd. Pump Stn. & N. Rivanna Transmission Main	108,099
Crozet Flow Equalization Tank	98,837
Asset Management	90,784
Water Demand Projection and Safe Yield Study	85,933
Crozet Interceptor	68,248
SH Dam-Rubber Crest Gate Replacement	66,360
IT Master Plan-Software	55,871
Radio Upgrades	55,390
Other	227,534
Retainage on Construction in Progress	175,356
Total Current Year Construction Costs and Adjustments	<u>\$ 11,130,249</u>

Long-Term Debt - At the end of the current fiscal year, the Authority had \$191 million in bonds outstanding, which is a decrease of \$9 million. Regular principal payments on existing debt caused the decrease. The Authority advance refunded the majority of the Series 2012A Bond during FY 2020. The Series 2019 Bond was issued for a par amount of \$17.6 million to refund \$15.9 million of the 2012A Bond and the related \$2.0 million of unamortized original issue premium. Roughly \$2million of the 2012A Bond remained outstanding, because that portion of the bond was not eligible for refunding before the November 2022 call date. More detailed information regarding the Authority's long-term debt is presented in Note 6 of the notes to the financial statements.

Review of Operations:

Revenues



Total operating revenues increased only \$157,000 in FY 2020 compared to the previous year but were well within budget targets. FY 2019 actual revenues were significantly over budget estimates and increased 18% or \$5.15 million compared to FY 2018 resulting from significant wet weather events. This gives the appearance that FY 2020 revenues were stagnant when in fact they were on target with expectations. There were several large rate increases approved by the Board of Directors for FY 2020. Crozet saw a 39% increase in the overall rates charged to anticipate the increased debt service on several large capital projects on that water system.

Overall, the Authority programed into FY 2020 rates an increase of \$2 million in operating revenues and that target was met.

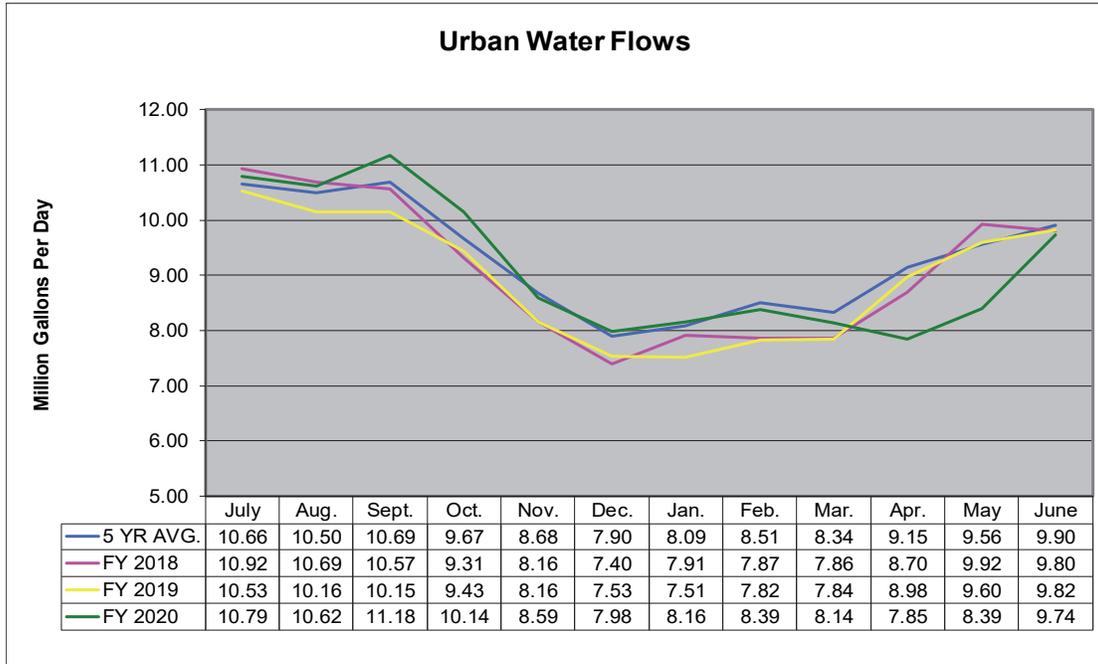
The capital program has been the single largest driver to the Authority’s revenue requirements, especially for wastewater rates, for the past several years. Over the past three years, the Authority has invested over \$37 million in capital infrastructure. The majority of that investment was financed with long-term debt. Roughly \$6.5 million of this spending was funded through cash reserves over that same time period. As shown in the chart below, FY 2020 Urban debt service rates increased across most rate centers as the capital program continues to grow. Roughly \$49.7 million in new project costs were added to the 5-year capital plan over the last two years. Operating rates were being affected by new systems coming on-line like the odor control project, the GAC project, which has significant yearly costs for the granular activated carbon used in the new treatment process at all 5 plants, and the wholesale water master metering project, which has yearly calibration and maintenance costs.

<u>Urban Rates</u>		<u>Water</u>		<u>Wastewater</u>	
Operations Rates - City & ACSA (\$ per 1,000 gallons):					
	FY 2018	\$ 1.969	10.8%	\$ 1.951	-2.3%
	FY 2019	\$ 2.070	5.1%	\$ 2.146	10.0%
	FY 2020	\$ 2.095	1.2%	\$ 2.369	10.4%
Debt Service Rates (\$ per month):					
City:	FY 2018	\$ 160,039	-23.2%	\$ 392,841	7.0%
	FY 2019	\$ 181,008	13.1%	\$ 408,260	3.9%
	FY 2020	\$ 193,580	6.9%	\$ 407,588	-0.2%
ACSA:	FY 2018	\$ 285,439	-10.9%	\$ 222,550	-6.0%
	FY 2019	\$ 307,598	7.8%	\$ 246,308	10.7%
	FY 2020	\$ 321,303	4.5%	\$ 278,174	12.9%

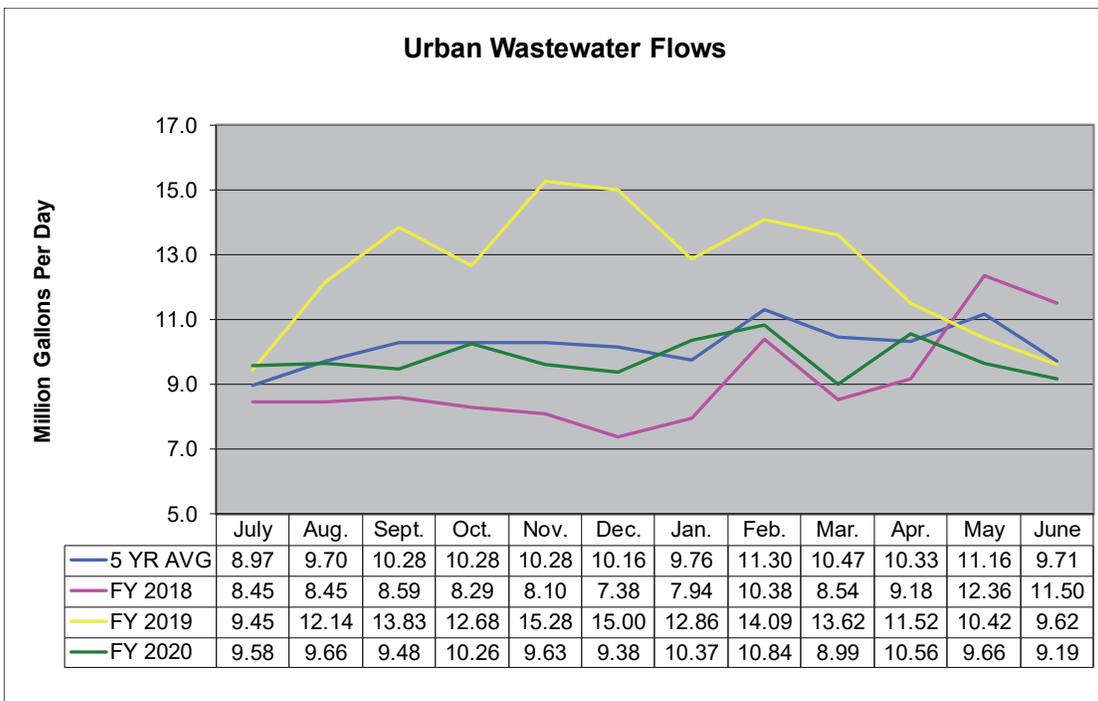
Review of Operations: (Continued)

Flows in the two urban rate centers are the single largest determining factor in the revenues billed to our two customers. The graphs below show the flows for the year compared to the last two years and the five-year average.

Urban Water flows were consistent with the 5-year trend for most of the year with April and May being lower and off that trend. This was mostly due to the COVID-19 impacts from UVa closing down. However, June water demand did pick back up to normal.



Urban Wastewater flows (below) were, for the most part, within the 5-year trend this year. As you can see in the graph and as mentioned above, FY 2019 was an abnormally high flow year. This chart clearly demonstrates how erratic wastewater flow can be compared to the trend due to weather patterns that can significantly affect metered flows and revenues.



Review of Operations: (Continued)

Total operating expenses increased by \$1.2 million for FY 2020. Changes in nonoperating costs for bond issue costs decreased \$243,000 and interest expense decreased \$215,000. Overall, both operating and nonoperating expenses increased \$718,000 over FY 2019 levels. Interest expense increased significantly between FY 2018 and FY 2019 by \$3.3 million. For FY 2019, new accounting guidance under GASB 89 does not allow for interest capitalization effective for reporting periods beginning after December 15, 2019, with earlier application encouraged. The Authority implemented the standard as of July 1, 2018. Essentially, the interest payments didn't change as much as the interest expense would indicate.

Direct operating costs in certain categories experienced overall increases in FY 2020. Personnel costs increased due to adjustments for increased pension liability valuations of roughly \$408,000. There were two new staff positions added with a new chemist and a new construction inspector. New staff along with regular pay increases caused a \$364,000 increase. Health insurance benefits also increased \$148,000. There were some reductions in expenses for FY 2020. Maintenance and treatment costs were less than last year as there were fewer line breaks and the use of GAC was optimized requiring less change out of the material. This was a \$442,000 cost reduction. Interest costs were also less resulting from the bond refunding mentioned before. Depreciation expenses did increase as more projects were completed/capitalized and added to the depreciation schedules.

Change in Expenses FY 2020 vs. FY 2019:

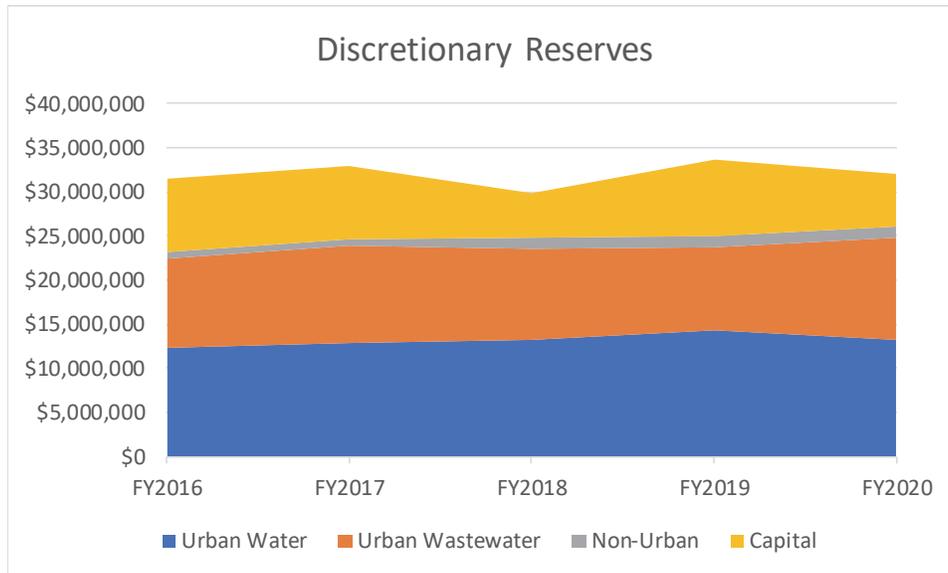
	<u>FY 2020</u>	<u>FY 2019</u>	<u>Change</u>	
Direct Operating*	\$ 18,842,553	\$ 18,292,560	\$ 549,993	3%
Depreciation	7,330,242	6,704,908	625,334	9%
Interest	5,733,428	5,947,988	(214,560)	-4%
Debt issuance costs	<u>220,695</u>	<u>463,487</u>	<u>(242,792)</u>	-52%
	\$ 32,126,918	\$ 31,408,943	\$ 717,975	2%

* - Personnel, Chemicals, Operations & Maintenance, Utilities

Cash balances have been stable for the past few years, maintaining a strong debt service coverage ratio the past several years. (See Table 8 in the Statistical Section.) Unrestricted cash and investments, which represents total discretionary reserves balances, were at \$36.3 million at the end of FY 2020. This was roughly \$2.7 million less than the previous year's balance, because we are using reserves for several of our capital projects. Restricted cash and cash equivalents balances decreased from \$38.9 million in FY 2019 to \$33.2 million in FY 2020. This was due to the bond proceeds being used for capital purposes. There was still \$25.6 million available for future capital spending in the 2018 bond construction fund account. Rate stabilization reserves totaled \$2 million at June 30, 2020, which is part of the unrestricted cash.

For the past decade, the Authority slowly built cash reserves for rate stabilization, unforeseen maintenance issues and support for an aggressive capital replacement program through its rate setting policies. The Board of Directors supports the need for a strong cash position to mitigate unforeseen costs in an aging infrastructure and to better handle wide fluctuations in flow. The aggressive capital construction activities over the past decade will continue into the future and will further necessitate a strong liquidity position as the Authority has over \$191 million in outstanding debt. Recognizing the increase in debt service obligations over the years, the executive management wisely continues to emphasize the need to maintain adequate reserves to provide financial flexibility and maintain an excellent bond rating of AA+ from Standard & Poor's. Below is a chart showing discretionary reserves, which have remained steady for the past five years.

Review of Operations: (Continued)



Over the last several years, financial policies have been adopted and revised as needed to formally support this philosophy. The Authority generally targets to have 60 days of working capital on hand for daily operations, which is roughly \$6.1 million. The Authority has a financial policy goal of funding 10% of our total capital program costs with cash reserves. Over the last ten years, the Authority has used capital cash to fund roughly \$29.4 million in projects. Capital spending using cash and debt financing sources over that same 10-year period was roughly \$206 million, which means our actual cash reserve funding is a little better than the policy targets.

Capital Improvements & Future Long-Term Trends

The Authority generally updates the five-year projection of our Capital Improvement Plan (CIP) annually. The following table shows the changes in the CIP adopted in June 2020 (for FY 2021–2025) compared to the previously adopted capital plan:

Changes in Capital Improvement Plan (CIP)		
FY 2020-2024	\$ 97,203,867	Previously adopted CIP
	(5,096,000)	Budgets for completed or closed projects
	35,793,000	Adjustments on existing projects
	4,608,000	New project budgets added
FY 2021-2025	<u>\$ 132,508,867</u>	Total 5-year CIP

The total 5-year CIP is estimated at \$132.5 million in capital spending needs through the year 2025. Of this amount, roughly \$5.4 million is work-in-progress (nearly 4%) and has already been expended and funded at year end. There is \$25.6 million in available bond proceeds from the recent Series 2018 bond to fund future capital work and \$7.6 million in the capital fund to fund the CIP. The future funding needs will be roughly \$81 million in additional debt (revenue bonds) to be issued and \$12.9 million in future reserves to be placed in the capital fund.

Most of the Authority’s capital spending investment over the last decade was to bring the wastewater systems into compliance with a DEQ Consent Order and meet nutrient reduction goals for the Chesapeake Bay clean-up programs.

Review of Operations: (Continued)

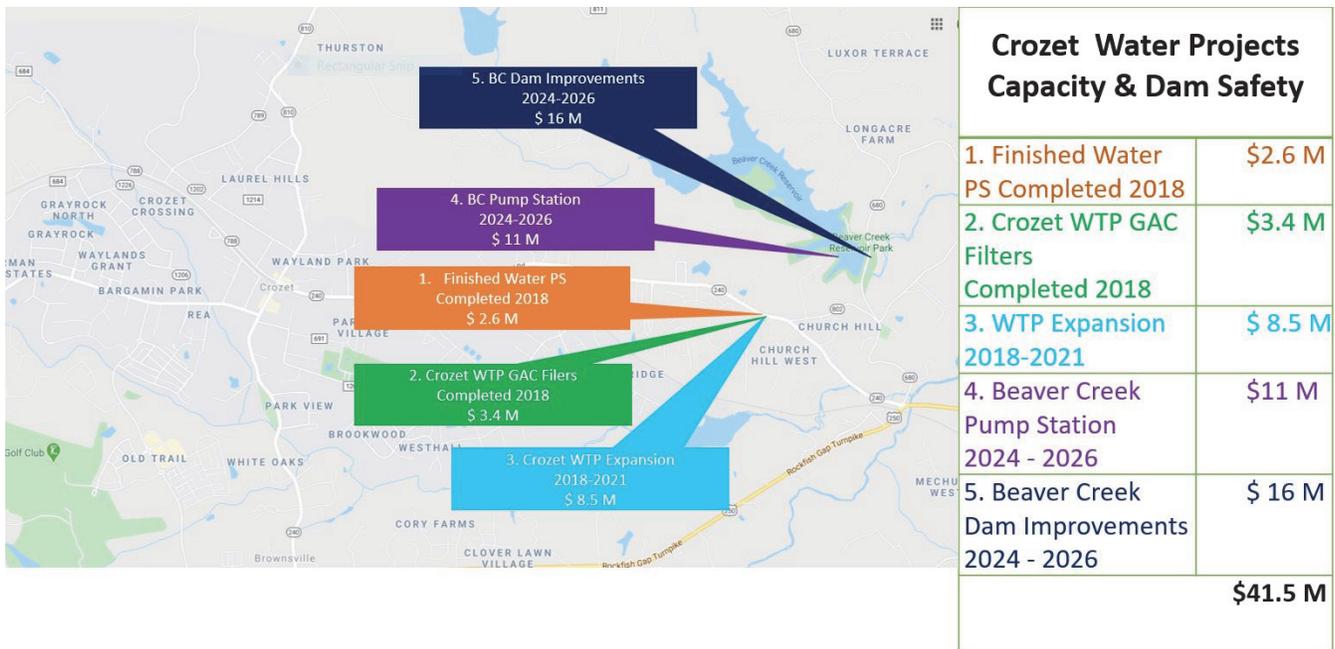
Moore's Creek Advanced Water Resource Recovery Facility at Night



Over the last two years, the Authority completed \$54.2 million in projects (\$4.2 million in FY 2020 and \$50 million in FY 2019). The majority of those projects were related to water quality and regulatory compliance projects, such as the GAC projects. A section of the raw water line (Birdwood Line) between Ragged Mountain and the South Fork Rivanna Reservoirs was completed. The Crozet water system has a newly completed finished water pump station and the improvements to the Bucks Elbow and finished water ball tanks were also completed. The capital program will be more focused on the water infrastructure over the next 10 years.

The Crozet growth area of the County has placed demand needs on the entire system (which is separate from the Urban System) requiring several projects into the future. The Crozet plant has not seen a major upgrade since its original construction in 1966. A Drinking Water Infrastructure Plan conducted in FY 2018 for the Crozet system identified several projects to address capacity needs and treatment improvements to the Crozet system. The plant capacity will increase from 1 mgd to 2 mgd. These projects in addition to the Beaver Creek Dam Alteration to address spillway issues are going to be major future projects for this system. See below for a summary of projects for this growing system:

Review of Operations: (Continued)



Projects 1 & 2 above are complete. The water treatment plant expansion, Project 3, is well underway. With the plant capacity increase anticipated, the Authority will have to seek a new withdrawal permit that will impose new minimum instream flow releases from the reservoir.

There are several major improvements planned for the Urban water systems. The South Rivanna Water Treatment Plant (WTP) had recently gone through upgrades for the granular activated carbon systems, but most of the core treatment facilities were not upgraded. This plant will now go through major upgrades to coagulant storage, new filters to meet firm capacity, changing or adding more variable frequency drives among many other upgrades. The Observatory WTP has seen very few upgrades since its construction in the mid-1950s. This plant will go through a system-by-system upgrade and an increase in production capacity from 7.7 million to 10 million gallons per day. A contract for these two major plant upgrades was awarded at the end of FY 2020. This will provide reliability, resiliency and redundancy improvements for the entire Urban system. These two projects are estimated to have a total cost of \$43 million.

Requests for Information:

This financial report is designed to provide a general overview of the Authority’s finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Department at 695 Moores Creek Lane, Charlottesville, Virginia 22902-9016.

Basic Financial Statements

Statement of Net Position
At June 30, 2020 and 2019

	At June 30,	
	2020	2019
ASSETS		
Current assets:		
Cash and cash equivalents (Note 1)	\$ 36,250,097	\$ 38,988,804
Restricted cash and cash equivalents	31,251,824	36,903,973
Accounts receivable	2,898,131	2,759,152
Unbilled accounts receivable	-	45,400
Prepaid expenses	185,299	-
Total current assets	<u>\$ 70,585,351</u>	<u>\$ 78,697,329</u>
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	\$ 1,978,408	\$ 2,032,250
Investments (Note 3)	2,051,535	1,997,694
Total restricted assets	<u>\$ 4,029,943</u>	<u>\$ 4,029,944</u>
Capital assets: (Note 4)		
Land and improvements	\$ 12,310,763	\$ 12,310,763
Buildings and operating equipment	352,807,752	348,680,424
Trucks and autos	1,532,771	1,605,502
Office equipment	101,330	106,760
Less accumulated depreciation	<u>(100,287,684)</u>	<u>(93,080,679)</u>
Subtotal net capital assets	\$ 266,464,932	\$ 269,622,770
Construction in progress (Note 5)	<u>15,402,049</u>	<u>8,463,765</u>
Total net capital assets	<u>\$ 281,866,981</u>	<u>\$ 278,086,535</u>
Total noncurrent assets	<u>\$ 285,896,924</u>	<u>\$ 282,116,479</u>
Total assets	<u>\$ 356,482,275</u>	<u>\$ 360,813,808</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred charge on refunding	\$ 610,521	\$ 654,937
Deferred outflows - pension (Note 8)	885,162	424,975
Deferred outflows - OPEB - group life insurance (Note 12)	<u>106,758</u>	<u>61,074</u>
Total deferred outflows of resources	<u>\$ 1,602,441</u>	<u>\$ 1,140,986</u>

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

Statement of Net Position (Continued)
At June 30, 2020 and 2019

	At June 30,	
	2020	2019
LIABILITIES		
Current liabilities:		
Accounts payable and other accrued expenses	\$ 2,604,078	\$ 3,244,636
Compensated absences - current portion (Note 7)	377,000	377,000
Other long-term obligation (Note 9)	178,972	174,093
Revenue bonds - current portion (Note 6)	<u>4,102,759</u>	<u>3,947,065</u>
Subtotal current liabilities	<u>\$ 7,262,809</u>	<u>\$ 7,742,794</u>
Current liabilities (payable from restricted assets):		
Retainage payable	\$ 339,790	\$ 164,434
Accrued interest payable	1,581,538	1,712,949
Revenue bond principal - current portion (Note 6)	<u>4,052,818</u>	<u>3,778,445</u>
Subtotal current liabilities (payable from restricted assets)	<u>\$ 5,974,146</u>	<u>\$ 5,655,828</u>
Total current liabilities	<u>\$ 13,236,955</u>	<u>\$ 13,398,622</u>
Noncurrent liabilities:		
Compensated absences (net of current portion) (Note 7)	\$ 114,718	\$ 52,107
Net OPEB liability (Note 12)	428,948	389,000
Other long-term obligation (Note 9)	311,822	409,829
Net pension liability (Note 8)	3,325,528	2,570,815
Revenue bonds (net of current portion) (Note 6)	<u>183,181,559</u>	<u>192,397,980</u>
Total noncurrent liabilities	<u>\$ 187,362,575</u>	<u>\$ 195,819,731</u>
Total liabilities	<u>\$ 200,599,530</u>	<u>\$ 209,218,353</u>
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows - pension (Note 8)	\$ 250,328	\$ 432,212
Deferred gain on partial bond refunding	509,713	-
Deferred inflows - OPEB - group life insurance (Note 12)	<u>27,310</u>	<u>36,000</u>
Total deferred inflows of resources	<u>\$ 787,351</u>	<u>\$ 468,212</u>
NET POSITION		
Net Position:		
Net investment in capital assets	\$ 119,947,988	\$ 113,396,071
Restricted for bond covenants	4,552,818	4,278,445
Unrestricted	<u>32,197,029</u>	<u>34,593,713</u>
Total net position	<u>\$ 156,697,835</u>	<u>\$ 152,268,229</u>

Statement of Revenues, Expenses, and Changes in Net Position
 Years Ended June 30, 2020 and 2019

	Year Ended June 30,	
	2020	2019
Operating revenues:		
Metered water sales	\$ 16,196,450	\$ 15,216,180
Wastewater service charges	17,999,007	18,821,857
Total operating revenues	\$ <u>34,195,457</u>	\$ <u>34,038,037</u>
Operating expenses:		
Personnel costs	\$ 8,693,477	\$ 7,728,340
Professional services	1,048,839	994,207
Other services and charges	3,676,790	3,770,051
Operations and maintenance	5,423,447	5,799,962
Depreciation	7,330,242	6,704,908
Total operating expenses	\$ <u>26,172,795</u>	\$ <u>24,997,468</u>
Operating income	\$ <u>8,022,662</u>	\$ <u>9,040,569</u>
Nonoperating revenues (expenses):		
Investment earnings	\$ 1,243,884	\$ 1,599,486
Buck Mountain revenue	57,100	111,700
Administrative reimbursement	471,937	474,246
Other revenues	588,146	380,737
Interest expense	(5,733,428)	(5,947,988)
Debt issuance costs	(220,695)	(463,487)
Total nonoperating revenues (expenses)	\$ <u>(3,593,056)</u>	\$ <u>(3,845,306)</u>
Change in net position	\$ 4,429,606	\$ 5,195,263
Net position, beginning of year	<u>152,268,229</u>	<u>147,072,966</u>
Net position, end of year	\$ <u><u>156,697,835</u></u>	\$ <u><u>152,268,229</u></u>

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

Statement of Cash Flows
Years Ended June 30, 2020 and 2019

	Year Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Receipts from customers and users	\$ 35,219,061	\$ 34,918,444
Payments to suppliers of goods and services	(10,710,633)	(10,247,250)
Payments to and on behalf of employees for services	(8,766,101)	(7,842,006)
Net cash provided by (used for) operating activities	<u>\$ 15,742,327</u>	<u>\$ 16,829,188</u>
Cash flows from capital and related financing activities:		
Additions to capital assets	\$ (11,059,309)	\$ (9,083,133)
Principal payments on bonds	(7,725,510)	(7,017,528)
Refunding of bond principal	(15,855,000)	-
(Premium) discount on refunded bonds	(2,034,417)	-
Deferred gain on bond refunding	526,870	-
Proceeds of bonds	17,610,000	36,855,000
Premium (discount) on bonds issued	(33,492)	2,930,097
Debt issuance costs	(220,695)	(463,487)
Interest payments	(6,585,515)	(6,069,825)
Net cash provided by (used for) capital and related financing activities	<u>\$ (25,377,068)</u>	<u>\$ 17,151,124</u>
Cash flows from investing activities:		
(Purchase) of investments	\$ -	\$ (1)
Sale of investments	-	1,266
Maturity of investments	653	638
Interest and dividends received	1,189,390	1,530,084
Net cash provided by (used for) investing activities	<u>\$ 1,190,043</u>	<u>\$ 1,531,987</u>
Increase (decrease) in cash and cash equivalents	\$ (8,444,698)	\$ 35,512,299
Cash and cash equivalents at beginning of year (including \$19,237,445 and \$38,936,223, respectively reported in restricted accounts)	<u>77,925,027</u>	<u>42,412,728</u>
Cash and cash equivalents at end of year (including \$33,230,232 and \$38,936,233, respectively reported in restricted accounts)	<u>\$ 69,480,329</u>	<u>\$ 77,925,027</u>
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income	\$ 8,022,662	\$ 9,040,569
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation	7,330,242	6,704,908
Buck Mountain revenue	57,100	111,700
Other nonoperating revenues	1,060,083	854,983
Changes in operating assets, deferred outflows of resources, liabilities and deferred inflows of resources:		
(Increase) decrease in receivables	(93,579)	(86,276)
Increase (decrease) in net OPEB liability	39,948	13,000
Increase (decrease) in compensated absences	62,611	(9,120)
Increase (decrease) in other long-term obligation	(93,128)	95,996
Increase (decrease) in net pension liability	754,713	(352,768)
(Increase) decrease in deferred outflows of resources - pension	(460,187)	155,489
Increase (decrease) in deferred inflows of resources - pension	(181,884)	(91,771)
(Increase) decrease in deferred outflows of resources - OPEB	(45,684)	(27,562)
Increase (decrease) in deferred inflows of resources - OPEB	(8,690)	(6,000)
(Increase) decrease in prepaid expenses	(185,299)	94,739
Increase (decrease) in operating payables and accrued expenses	(516,581)	331,301
Net cash provided by (used for) operating activities	<u>\$ 15,742,327</u>	<u>\$ 16,829,188</u>
Noncash investing, capital and financing activities:		
Increase (decrease) in fair value of investments	\$ 54,494	\$ 69,402
(Increase) decrease in retainage payable for capital projects	175,356	(278,382)

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

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RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019

Note 1—Summary of Significant Accounting Policies:

In the interest of efficient water quality management for the upper Rivanna River Basin, the Rivanna Water and Sewer Authority was formed on June 7, 1972 as a joint venture of the City of Charlottesville, the Albemarle County Service Authority, and the County of Albemarle, pursuant to the Virginia Water and Waste Authorities Act (1950 as amended). The Authority is responsible for acquiring, financing, constructing and maintaining facilities for the improvement, treatment, storage and transmission of potable water, and for the interception, treatment and discharge of wastewater for the City and County. The Authority operates under the terms of a Service Agreement among the Authority, the Albemarle County Service Authority, the City of Charlottesville, and the County of Albemarle which was signed June 12, 1973.

A. Financial Reporting Entity

The Rivanna Water & Sewer Authority was established according to the Agreement mentioned above for the purposes stated. The participating entities are City of Charlottesville, County of Albemarle, and Albemarle County Service Authority. The City of Charlottesville and the Albemarle County Service Authority have an ongoing financial responsibility to the Authority because a covenant to pay the Authority's rates and charges is included in the operating agreement.

The Authority's governing body is comprised of three members appointed by the County, three members appointed by the City, and one member who is jointly appointed by the City and County. Therefore, none of the participants appoints a voting majority of board members.

The Authority is perpetual. No participating government has access to its resources or surpluses, nor is any participant liable for the Authority's debts or deficits. The Authority also has the ability to finance its capital projects through user charges or the sale of revenue bonds.

Based on the above representations, the Rivanna Water & Sewer Authority has been determined to be a joint venture of the City of Charlottesville, County of Albemarle and Albemarle County Service Authority. The Authority is not a component unit of any of the participating governments. There are no component units to be included within the Authority's financial statements.

For purposes of reporting entity disclosure, it should be noted that a separate entity, the Rivanna Solid Waste Authority, provides garbage and refuse transfer and disposal services to the City of Charlottesville and Albemarle County. Although certain administrative employees provide services to both Authorities, each Authority is operationally and legally independent.

B. Basis of Accounting

Rivanna Water & Sewer Authority operates as an enterprise fund, uses the flow of economic resources measurement focus and its accounts are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned, and expenses are recorded as liabilities when incurred, without regard to receipt or payment of cash. The Authority accrues revenue for services rendered but not yet billed at the end of the fiscal year. The Authority accounts have been audited by an independent firm annually since its founding in accordance with the requirements of the Service Agreement, dated June 12, 1973, among the Authority, the City of Charlottesville, Albemarle County, and Albemarle County Service Authority.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 1–Summary of Significant Accounting Policies: (Continued)

B. Basis of Accounting (Continued)

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

C. Accounts Receivable

Accounts receivable are stated at book value utilizing the direct write-off method for immaterial uncollectible accounts.

D. Basic Financial Statements

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

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

E. Capital Assets

Capital assets, which include property, plant, equipment, and infrastructure assets (e.g., roads, bridges, sidewalks, and similar items), are reported in the financial statements. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$10,000 (amount not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 1—Summary of Significant Accounting Policies: (Continued)

E. Capital Assets (Continued)

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

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities is recognized as an expense when incurred instead of being included in the historical cost of constructed capital assets, pursuant to Governmental Accounting Standards Board (GASB) Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period.

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

<u>Assets</u>	<u>Years</u>
Buildings & operating equipment	5 to 50
Trucks & autos	5 to 10
Office equipment	5 to 10
Data processing equipment	5

F. Cash and Cash Equivalents

The Authority's Cash and cash equivalents include cash on hand, amounts in demand deposits as well as short-term investments with a maturity date within three months of the date acquired by the government. For purposes of the statement of cash flows, the Authority considers their demand deposits and all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

G. Investments

Investments with a maturity of less than one year when purchased, non-negotiable certificates of deposit, and other nonparticipating investments (external investment pools) are stated at cost or amortized cost. Investments with a maturity greater than one year when purchased are stated at fair value. Fair value is the price that would be received to sell an investment in an orderly transaction at year end.

H. Budgets and Budgetary Accounting

A budget is prepared for information, fiscal planning purposes, and to provide the basis for setting wholesale rates, in accordance with the requirements of the Service Agreement, dated June 12, 1973, among the Authority, the City of Charlottesville, Albemarle County, and the Albemarle County Service Authority. Rates charged by the six rate centers are not subjected to regulatory scrutiny but may be changed at any time by the Authority's Board of Directors, if necessary, in order to adjust revenues. None of the participating entities are required to approve the budget. The budget is adopted as a planning document and is not a legal control on expenses.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 1–Summary of Significant Accounting Policies: (Continued)

I. Inventory

Consumption of materials and supplies is recorded as an expense when used. No inventory amounts are recorded as an asset, as available inventories are not significant.

J. Use of Estimates

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

K. Net Position

The difference between assets and deferred outflows of resources less liabilities and deferred inflows of resources is called net position. Net position is comprised of three components: net investment in capital assets, restricted, and unrestricted.

- Net investment in capital assets consists of capital assets, net of accumulated depreciation and reduced by outstanding balances of bonds, notes, and other debt that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included in this component of net position.
- Restricted net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Assets are reported as restricted when constraints are placed on asset use either by external parties or by law through constitutional provision or enabling legislation.
- Unrestricted net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that does not meet the definition of the two preceding categories.

L. Restricted Assets

Certain proceeds of the Authority’s revenue bonds and certain resources set aside for their repayment are classified as restricted assets on the statement of net position, because they are maintained in separate bank accounts, and their use is limited by applicable bond covenants. The “revenue bond general operating reserve” is used to report resources set aside to subsidize potential deficiencies from the Authority’s operation that could adversely affect debt service payments. The “revenue bond payment account” is used to segregate resources accumulated for debt service payments over the next twelve months. The “debt service reserve” is used to report resources set aside to make up potential future deficiencies in the revenue bond payment account. The “repair and replacement reserve” is used to report resources set aside to meet unexpected contingencies or to fund asset renewals and replacements.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 1—Summary of Significant Accounting Policies: (Continued)

M. Long-Term Obligations

Bond premiums and discounts are amortized over the life of the bonds. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are expensed as incurred.

N. Reclassification

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

O. Deferred Inflows and Outflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has three types of items that qualify for reporting in this category. One type is the deferred charge on refunding reported in the statement of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. Another type of deferred outflow is comprised of certain items related to the measurement of the net pension liability. It is comprised of contributions to the pension plan made during the current year and subsequent to the net pension liability measurement date, which will be recognized as a reduction of the net pension liability next fiscal year, differences between expected and actual experience, and net difference between projected and actual pension plan earnings. A third type of deferred outflow is related to the Group Life Insurance Plan (GLI OPEB Plan). It consists of employer contributions to the OPEB plan in the current year and subsequent to the OPEB liability measurement date, which will be recognized as a reduction of the net GLI OPEB liability next fiscal year, differences between expected and actual experience, and changes in proportionate share between measurement dates.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has three types of items that qualify for reporting in this category. Items related to the measurement of the net pension liability that are reported as deferred inflows of resources include differences between expected and actual experience, changes in assumptions, and the net difference between projected and actual earnings on pension plan investments. Deferred inflows of resources related to the measurement of the net GLI OPEB liability include differences between expected and actual experience, the net difference between projected and actual earnings on GLI OPEB plan investments, and changes in assumptions. A third type is the deferred charge on refunding reported in the statement of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

For more detailed information regarding deferred outflows and inflows of resources related to the pension plan, refer to Note 8. For more information on those related to the GLI OPEB Plan, refer to Note 12.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 1—Summary of Significant Accounting Policies: (Continued)

P. Net Position Flow Assumption

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

Q. 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.

R. Other Postemployment Benefits (OPEB)

Group Life Insurance

For purposes of measuring the net GLI Plan OPEB liability, deferred outflows of resources and deferred inflows of resources related to the GLI OPEB, and GLI OPEB expense, information about the fiduciary net position of the VRS GLI Plan OPEB and the additions to/deductions from the VRS GLI OPEB's net fiduciary position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Note 2—Acquisition of Water and Wastewater Facilities:

Under the terms of the Service Agreement (See Note 1), the Authority agreed to purchase certain water production, transmission and storage facilities and wastewater interception and treatment facilities from the City and the Albemarle County Service Authority. The agreement provides that the sale be consummated ten years from the date of the agreement or at such later time as the debts, if any, attributed to each such facility have been paid or provision is made for their payment, and that the Authority will lease the facility until such time as the sale is consummated. The purchase price is the fair value of the facilities as of June 12, 1973, as determined by all payments paid by the Authority during the term of lease applicable to the principal retired on the debt of such facilities. In accordance with generally accepted accounting principles, the aforementioned agreement has been treated as an installment purchase of the facilities, with the purchase price being discounted at an annual rate of 6% for ten years.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 2—Acquisition of Water and Wastewater Facilities: (Continued)

The following tabulation reflects the agreed upon purchase price and accounting thereof:

Fair value as of June 12, 1973:	
Facilities acquired from City of Charlottesville	\$ 6,128,124
Facilities acquired from Albemarle County Service Authority	<u>3,604,384</u>
Total purchase price	\$ 9,732,508
Add: Interest portion of rental payments not applied to principal reduction	<u>1,154,074</u>
Total contracts payable	\$ 10,886,582
Less: Interest included in contract price computed at annual rate of 6% for 10 years	<u>4,940,705</u>
Asset carrying value	<u>\$ 5,945,877</u>

The contracts payable have been reduced by the amount of the annual rental payments on the facilities as outlined in the following tabulation:

	<u>City of Charlottesville</u>	<u>Albemarle County Service Authority</u>
Contracts payable, June 12, 1973	\$ <u>6,354,634</u>	\$ <u>4,531,948</u>
Rental payments and contract adjustments in prior fiscal years	\$ <u>1,760,676</u>	\$ <u>3,680,395</u>
Total rental payments	\$ 1,760,676	\$ 3,680,395
Final payment on facilities with no outstanding debt as of June 30, 1983	<u>4,593,958</u>	<u>851,553</u>
Total payments	\$ <u>6,354,634</u>	\$ <u>4,531,948</u>
Contracts payable, June 30, 2020	<u>\$ -</u>	<u>\$ -</u>

The total annual rental payments over the initial ten-year agreement were not sufficient to retire the contracts payable to the Albemarle County Service Authority. The deferred interest was amortized over the initial ten-year period of the agreement and was fully amortized as of June 30, 1983.

Depreciation has been based upon the engineer's estimates of useful lives remaining as of the valuation date (June 12, 1973). Depreciation expense on these facilities amounted to \$52,211 and \$52,658 for the years ended June 30, 2020 and 2019, respectively.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 3—Deposits and Investments:

Deposits

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

Investments

Statutes authorize local governments and other public bodies 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 that has received at least two of the following ratings: P-1 by Moody’s Investors Service, Inc.; A-1 by Standard and Poor’s; or F1 by Fitch Ratings, Inc. (Section 2.2-4502), banker’s acceptances, repurchase agreements, and the State Treasurer’s Local Government Investment Pool (LGIP).

The Authority does not have a formal investment policy that addresses credit risk or interest rate risk.

Credit Risk of Debt Securities

The Authority’s rated debt investments as of June 30, 2020 and 2019 were rated by Standard & Poor’s and the ratings are presented below using Standard & Poor’s rating scale.

Authority's Rated Debt Investments' Values - 2020			
Rated Debt Investments	Fair Quality Ratings		
	AAAm	AA+	AA+f
U.S. Agencies Securities	\$ 1,765	\$ -	\$ -
Local Government Investment Pool	18,137,485	-	-
VML/VACo Virginia Investment Pool	10,540,185	-	-
Virginia State Non-Arbitrage Pool	25,617,468	-	-
U.S. Treasury Notes & Bonds	-	2,049,770	-
U.S. Treasury & Agency Money Market Funds	7,386,976	-	-
Total	\$ 61,683,879	\$ 2,049,770	\$ -

Authority's Rated Debt Investments' Values - 2019			
Rated Debt Investments	Fair Quality Ratings		
	AAAm	AA+	AA+f
U.S. Agencies Securities	\$ 2,454	\$ -	\$ -
Local Government Investment Pool	19,759,341	-	-
VML/VACo Virginia Investment Pool	10,368,384	-	-
Virginia State Non-Arbitrage Pool	31,412,579	-	-
U.S. Treasury Notes & Bonds	-	1,995,240	-
U.S. Treasury & Agency Money Market Funds	7,118,324	-	-
Total	\$ 68,661,082	\$ 1,995,240	\$ -

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 3—Deposits and Investments: (Continued)

Interest Rate Risk

Investment Maturities (in years) - 2020

<u>Investment Type</u>	<u>Fair Value</u>	<u>Less Than 1 Year</u>	<u>1-5 Years</u>	<u>6-10 Years</u>
U.S. Agencies Securities	\$ 1,765	\$ -	\$ 1,765	\$ -
Local Government Investment Pool	18,137,485	18,137,485	-	-
VML/VACo Virginia Investment Pool	10,540,185	10,540,185	-	-
Virginia State Non-Arbitrage Pool	25,617,468	25,617,468	-	-
U.S. Treasury & Agency Money Market Funds	7,386,976	7,386,976	-	-
U.S. Treasury Notes & Bonds	<u>2,049,770</u>	<u>-</u>	<u>2,049,770</u>	<u>-</u>
Total	<u>\$ 63,733,649</u>	<u>\$ 61,682,114</u>	<u>\$ 2,051,535</u>	<u>\$ -</u>

Investment Maturities (in years) - 2019

<u>Investment Type</u>	<u>Fair Value</u>	<u>Less Than 1 Year</u>	<u>1-5 Years</u>	<u>6-10 Years</u>
U.S. Agencies Securities	\$ 2,454	\$ -	\$ 2,454	\$ -
Local Government Investment Pool	19,759,341	19,759,341	-	-
VML/VACo Virginia Investment Pool	10,368,384	10,368,384	-	-
Virginia State Non-Arbitrage Pool	31,412,579	31,412,579	-	-
U.S. Treasury & Agency Money Market Funds	7,118,324	7,118,324	-	-
U.S. Treasury Notes & Bonds	<u>1,995,240</u>	<u>-</u>	<u>1,995,240</u>	<u>-</u>
Total	<u>\$ 70,656,322</u>	<u>\$ 68,658,628</u>	<u>\$ 1,997,694</u>	<u>\$ -</u>

External Investment Pools

The Authority invests in the Virginia Investment Pool (“VIP”) which is sponsored by VML/VACo Finance and is professionally managed under the governance of the VIP Board of Trustees. The VIP investment strategy is to preserve capital, and it only invests in instruments allowable by the Code of Virginia. The Authority owns shares of the VIP and not the underlying instruments held by the VIP.

The fair value of the positions in the external investment pools (Local Government Investment Pool, State Non-Arbitrage Pool) is the same as the value of the pool shares. As LGIP and SNAP are not SEC registered, regulatory oversight of the pools rest with the Virginia State Treasury. LGIP and SNAP are amortized cost basis portfolios. There are no withdrawal limitations or restrictions imposed on participants in LGIP and SNAP. The VML/VACo Virginia Investment Pool has a limit of two withdrawals per month.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 4—Capital Assets:

Details of changes in capital assets for the year ended June 30, 2020 are as follows:

	Balance July 1, 2019	Increases	Decreases	Balance June 30, 2020
Capital assets not being depreciated:				
Land and improvements	\$ 12,310,763	\$ -	\$ -	\$ 12,310,763
Construction in progress	8,463,765	11,130,249	4,191,965	15,402,049
Total capital assets not being depreciated	<u>\$ 20,774,528</u>	<u>\$ 11,130,249</u>	<u>\$ 4,191,965</u>	<u>\$ 27,712,812</u>
Other capital assets:				
Buildings and operating equipment	\$ 348,680,424	\$ 4,127,327	\$ -	\$ 352,807,751
Accumulated depreciation	<u>(91,899,373)</u>	<u>(7,263,350)</u>	<u>-</u>	<u>(99,162,723)</u>
Buildings and operating equipment, net	<u>\$ 256,781,051</u>	<u>\$ (3,136,023)</u>	<u>\$ -</u>	<u>\$ 253,645,028</u>
Trucks and autos	\$ 1,605,502	\$ 47,333	\$ 120,064	\$ 1,532,771
Accumulated depreciation	<u>(1,086,211)</u>	<u>(64,020)</u>	<u>(117,808)</u>	<u>(1,032,423)</u>
Trucks and autos, net	<u>\$ 519,291</u>	<u>\$ (16,687)</u>	<u>\$ 2,256</u>	<u>\$ 500,348</u>
Office equipment	\$ 106,760	\$ -	\$ 5,429	\$ 101,331
Accumulated depreciation	<u>(95,095)</u>	<u>(2,872)</u>	<u>(5,429)</u>	<u>(92,538)</u>
Office equipment, net	<u>\$ 11,665</u>	<u>\$ (2,872)</u>	<u>\$ -</u>	<u>\$ 8,793</u>
Total other capital assets, net	<u>\$ 257,312,007</u>	<u>\$ (3,155,582)</u>	<u>\$ 2,256</u>	<u>\$ 254,154,169</u>
Total capital assets, net	<u><u>\$ 278,086,535</u></u>	<u><u>\$ 7,974,667</u></u>	<u><u>\$ 4,194,221</u></u>	<u><u>\$ 281,866,981</u></u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 4—Capital Assets: (Continued)

Details of changes in capital assets for the year ended June 30, 2019 are as follows:

	Balance July 1, 2018	Increases	Decreases	Balance June 30, 2019
Capital assets not being depreciated:				
Land and improvements	\$ 10,604,850	\$ 1,705,913	\$ -	\$ 12,310,763
Construction in progress	54,148,987	8,902,194	54,587,416	8,463,765
Total capital assets not being depreciated	<u>\$ 64,753,837</u>	<u>\$ 10,608,107</u>	<u>\$ 54,587,416</u>	<u>\$ 20,774,528</u>
Other capital assets:				
Buildings and operating equipment	\$ 297,335,818	\$ 53,203,439	\$ 1,858,833	\$ 348,680,424
Accumulated depreciation	<u>(87,017,932)</u>	<u>(6,719,629)</u>	<u>(1,838,188)</u>	<u>(91,899,373)</u>
Buildings and operating equipment, net	<u>\$ 210,317,886</u>	<u>\$ 46,483,810</u>	<u>\$ 20,645</u>	<u>\$ 256,781,051</u>
Trucks and autos	\$ 1,281,934	\$ 403,293	\$ 79,725	\$ 1,605,502
Accumulated depreciation	<u>(1,081,797)</u>	<u>(84,139)</u>	<u>(79,725)</u>	<u>(1,086,211)</u>
Trucks and autos, net	<u>\$ 200,137</u>	<u>\$ 319,154</u>	<u>\$ -</u>	<u>\$ 519,291</u>
Office equipment	\$ 93,659	\$ 13,101	\$ -	\$ 106,760
Accumulated depreciation	<u>(92,658)</u>	<u>(2,437)</u>	<u>-</u>	<u>(95,095)</u>
Office equipment, net	<u>\$ 1,001</u>	<u>\$ 10,664</u>	<u>\$ -</u>	<u>\$ 11,665</u>
Total other capital assets, net	<u>\$ 210,519,024</u>	<u>\$ 46,813,628</u>	<u>\$ 20,645</u>	<u>\$ 257,312,007</u>
Total capital assets, net	<u><u>\$ 275,272,861</u></u>	<u><u>\$ 57,421,735</u></u>	<u><u>\$ 54,608,061</u></u>	<u><u>\$ 278,086,535</u></u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 5—Construction in Progress:

Details of construction in progress for the year ended June 30, 2020 are as follows:

	<u>Balance July 1, 2019</u>	<u>Cost of Construction</u>	<u>Expense/ Transfer to Capital Assets</u>	<u>Balance June 30, 2020</u>
S. Rivanna Reservoir to Ragged Mtn. Reservoir				
Water Line R/W	\$ 301,054	\$ 650,459	\$ -	\$ 951,513
Birdwood Golf Course Waterline	2,714,728	334,679	3,049,407	-
Observatory WTP Improvements	618,880	868,706	-	1,487,586
SH Dam-Rubber Crest Gate Replacement	-	66,360	-	66,360
Valve Repair-Replacement (Phase 2)	154,219	760,244	-	914,463
Piney Mountain Tank Rehabilitation	88,585	397,927	486,512	-
*Central Water Line	137,749	-	-	137,749
Water Demand Projection and Safe Yield Study	79,106	85,933	165,039	-
Airport Rd. Pump Stn. & N. Rivanna Transmission Main	-	108,099	-	108,099
Finished Water System Master Plan	20,307	118,897	-	139,204
South Fork Rivanna Hydropower Plant Decommissioning	127,081	8,986	-	136,067
S. Rivanna WTP Improvements	619,031	1,228,296	-	1,847,327
South Rivanna Dam-Gate Repair	-	49,981	-	49,981
North Rivanna WTP-Upgrade	-	2,130	-	2,130
Beaver Creek Dam Alteration	279,288	14,027	-	293,315
*Buck's Elbow Ground Storage Tank Chlorination System	6,643	212,978	219,621	-
Crozet WTP Expansion	1,238,717	4,327,361	-	5,566,078
*New Raw Water Pump Station & Intake (BCR)	8,846	120,936	-	129,782
Scottsville WTP Finished Water Flow Meter	12,128	119,851	131,979	-
Scottsville Water LT2 Improvements	-	21,582	-	21,582
Schenks Branch Interceptor	11,187	39,600	-	50,787
*Interceptor Sewer & Manhole Repair-Phase 1	268,367	200,170	-	468,537
Crozet Interceptor	181,975	68,248	-	250,223
Crozet Flow Equalization Tank	255,319	98,837	-	354,156
Albemarle Berkley PS-Basin Demolition	-	30,128	-	30,128
Crozet PS 1,2,3 Rehabilitation	-	15,582	-	15,582
Moores Creek AWRRF Odor Control-Phase 2	1,000,530	258,360	-	1,258,890
Moores Creek Digester Sludge Storage Improvements	-	15,450	-	15,450
Aluminum Slide Gate Replacement	6,854	18,418	-	25,272
MCAWRRF Master Plan	-	157,177	-	157,177
Scottsville Air Control Improvements	-	11,650	-	11,650
Glenmore Secondary Clarifier Coating	1,100	138,307	139,407	-
Radio Upgrades	75,352	55,390	-	130,742
Asset Management	92,285	90,784	-	183,069
Security Enhancements	-	203,489	-	203,489
IT Master Plan-Software	-	55,871	-	55,871
Retainage on Construction in Progress	164,434	175,356	-	339,790
Total	\$ 8,463,765	\$ 11,130,249	\$ 4,191,965	\$ 15,402,049

*Note: Project name changed

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 5—Construction in Progress: (Continued)

Details of construction in progress for the year ended June 30, 2019 are as follows:

	<u>Balance July 1, 2018</u>	<u>Cost of Construction</u>	<u>Expense/ Transfer to Capital Assets</u>	<u>Balance June 30, 2019</u>
S. Rivanna Reservoir to Ragged Mtn. Reservoir Water Line R/W	\$ 123,782	\$ 177,272	\$ -	\$ 301,054
Birdwood Golf Course Waterline	-	2,714,728	-	2,714,728
Observatory WTP Improvements	1,154,558	506,520	1,042,198	618,880
Interconnect Lower SH and RM Raw Water Mains	8,076	-	8,076	-
Sugar Hollow to Ragged Mtn Res Transfer Flow Meter	15,311	466,738	482,049	-
Route 29 Pumping Station Site Acquisition	1,042,168	663,745	1,705,913	-
Valve Repair-Replacement (Phase 2)	-	154,219	-	154,219
Urban Water GAC/Water Treatment Plant Improvements	24,089,122	188,019	24,277,141	-
Wholesale Water Master Metering-Urban	2,679,816	558,174	3,237,990	-
Piney Mountain Tank Rehabilitation	51,185	37,400	-	88,585
Avon to Pantops Water Main	126,861	10,888	-	137,749
Water Demand Projection and Safe Yield Study	-	79,106	-	79,106
Finished Water System Master Plan	-	20,307	-	20,307
South Rivanna Hydropower Plant Decommissioning	98,625	28,456	-	127,081
South Rivanna WTP Improvements	46,891	572,140	-	619,031
Beaver Creek Dam Alterations	191,871	87,417	-	279,288
Crozet Water GAC/Water Treatment Plant Improvements	3,250,630	16,505	3,267,135	-
Buck's Elbow & Crozet Waterball Tank Painting	-	6,643	-	6,643
Crozet WTP Expansion	510,377	728,340	-	1,238,717
Crozet WTP Finished Water Pump Station	2,067,760	203,814	2,271,574	-
Crozet Drinking Water Infrastructure Plan	245,223	52,041	297,264	-
New Raw Water PS & Intake, Oxygenation (BCR)	-	8,846	-	8,846
Scottsville Water Granular Activated Carbon	1,569,384	8,130	1,577,514	-
Scottsville WTP Finished Water Flow Meter	-	12,128	-	12,128
Schenks Branch Interceptor	11,187	-	-	11,187
Interceptor Sewer & Manhole Repair	176,434	91,933	-	268,367
Crozet Interceptor	181,725	250	-	181,975
Crozet Flow Equalization Tank	80,092	175,227	-	255,319
Crozet Interceptor PS Bypass Isolation Valves	18,334	415,760	434,094	-
Moore's Creek Bridge Repairs	261,198	18,270	279,468	-
Moore's Creek AWRRF Odor Control-Phase 2	9,151,666	727,096	8,878,232	1,000,530
MCAWRRF Roof Replacements	809,424	166,796	976,220	-
MCAWRRF Second Centrifuge	1,154,719	136,414	1,291,133	-
Aluminum Slide Gate Replacement	-	6,854	-	6,854
Glenmore Secondary Clarifier Coating	-	1,100	-	1,100
Radio Upgrades	28,337	47,015	-	75,352
Asset Management	-	92,285	-	92,285
Capitalized Interest	4,561,415	-	4,561,415	-
Retainage on Construction in Progress	442,816	(278,382)	-	164,434
Total	<u>\$ 54,148,987</u>	<u>\$ 8,902,194</u>	<u>\$ 54,587,416</u>	<u>\$ 8,463,765</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations:

A. Changes in Long-Term Obligations

The following is a summary of long-term obligation transactions for the year ended June 30, 2020:

	<u>Balance July 1, 2019</u>	<u>Issuances</u>	<u>Retirements</u>	<u>Balance June 30, 2020</u>	<u>Due Within One Year</u>
Revenue bonds payable					
Public offerings	\$ 22,715,000	\$ -	\$ (650,000)	\$ 22,065,000	\$ 670,000
Direct borrowings and direct placements	<u>167,576,452</u>	<u>17,610,000</u>	<u>(22,930,510)</u>	<u>162,255,942</u>	<u>7,485,577</u>
Subtotal	\$ 190,291,452	\$ 17,610,000	\$ (23,580,510)	\$ 184,320,942	\$ 8,155,577
Add (less) amounts:					
For issuance premiums (discounts)	<u>9,832,038</u>	<u>(33,492)</u>	<u>(2,782,352)</u>	<u>7,016,194</u>	<u>-</u>
Total revenue bonds	\$ 200,123,490	\$ 17,576,508	\$ (26,362,862)	\$ 191,337,136	\$ 8,155,577
VERIP liability	583,922	80,965	(174,093)	490,794	178,972
Compensated absences	429,107	419,435	(356,824)	491,718	377,000
Net OPEB liability	389,000	128,424	(88,476)	428,948	-
Net pension liability	<u>2,570,815</u>	<u>2,703,740</u>	<u>(1,949,027)</u>	<u>3,325,528</u>	<u>-</u>
Totals	<u>\$ 204,096,334</u>	<u>\$ 20,909,072</u>	<u>\$ (28,931,282)</u>	<u>\$ 196,074,124</u>	<u>\$ 8,711,549</u>

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

	<u>Balance July 1, 2018</u>	<u>Issuances</u>	<u>Retirements</u>	<u>Balance June 30, 2019</u>	<u>Due Within One Year</u>
Revenue bonds payable					
Public offerings	\$ 23,345,000	\$ -	\$ (630,000)	\$ 22,715,000	\$ 650,000
Direct borrowings and direct placements	<u>137,108,980</u>	<u>36,855,000</u>	<u>(6,387,528)</u>	<u>167,576,452</u>	<u>7,075,510</u>
Subtotal	\$ 160,453,980	\$ 36,855,000	\$ (7,017,528)	\$ 190,291,452	\$ 7,725,510
Add (less) amounts:					
For issuance premiums (discounts)	<u>7,442,218</u>	<u>2,930,097</u>	<u>(540,277)</u>	<u>9,832,038</u>	<u>-</u>
Total revenue bonds	\$ 167,896,198	\$ 39,785,097	\$ (7,557,805)	\$ 200,123,490	\$ 7,725,510
VERIP liability	487,926	219,748	(123,752)	583,922	174,093
Compensated absences	438,227	340,860	(349,980)	429,107	377,000
Net OPEB liability	376,000	82,000	(69,000)	389,000	-
Net pension liability	<u>2,923,583</u>	<u>1,929,171</u>	<u>(2,281,939)</u>	<u>2,570,815</u>	<u>-</u>
Totals	<u>\$ 172,121,934</u>	<u>\$ 42,356,876</u>	<u>\$ (10,382,476)</u>	<u>\$ 204,096,334</u>	<u>\$ 8,276,603</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations

All of the Authority's bond issues are direct placements with Virginia Resources Authority or with private banks with the exception of Series 2012B, which is a public offering. All bonds are issued in parity with one another under the 1979 Master Trust Agreement. The trust agreement does not specifically identify fixed amounts to be paid in the event of default. The Authority has no unused lines of credit, and none of its assets are pledged as collateral for any of its debt. There are no terms specified in any of the Authority's debt agreements related to significant (a) events of default with finance-related consequences, (b) termination events with finance-related consequences, or (c) subjective acceleration clauses.

	<u>Total Amount</u>	<u>Amount Due Within One Year</u>
<u>Revenue Bonds</u>		
<u>Public Offerings</u>		
\$26,240,000 Water and Sewer System Revenue and Refunding Bonds, Series 2012B - On October 30, 2012, the Authority issued \$26,240,000 in Revenue and Refunding Bonds for purposes of financing various water and sewer capital projects including the design, development and construction of a new dam; the implementation of wetlands and streambank mitigation plans and costs of issuance. The bonds were issued at a premium in the amount of \$646,250.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2013 through October 1, 2042. The bonds bear interest at an annual rate ranging from 2.125% to 4.0%. Total payments due each year range from \$1,337,000 to \$1,342,000. The bonds are subject to federal arbitrage regulations.	\$ 22,065,000	\$ 670,000

Direct Borrowings and Direct Placements

Water and Sewer System Revenue Bonds - Series of 2005A - On November 10, 2005, the Authority issued \$2,340,929 in bonds for purposes of financing the Moores Creek wastewater pre-treatment project. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that these obligations will be repaid from revenue generated by the Authority and are backed by a restricted cash account.

The bond resolution provides a redemption schedule with an interest only payment due in April 2007 and semi-annual payments of principal and interest of \$79,670 from October 2007 through October 2026. The bonds bear interest at 3%.

\$	934,647	\$	132,285
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RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	<u>Total Amount</u>	<u>Amount Due Within One Year</u>
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
<p>\$24,000,000 Regional Water and Sewer System Revenue Bond - Series 2009A - On August 1, 2009 the Authority issued \$24,000,000 in bonds for purposes of financing the Moores Creek Wastewater Treatment Plant upgrades, including the Enhanced Nutrient Removal project. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provided a redemption schedule with an interest only payment due in April 2011 and semi-annual payments of principal and 3.35% interest of \$843,077 from October 2011 through October 2030. The interest rate was reduced to 2.65% on October 1, 2014, which reduced the semi-annual payments to \$802,099.</p>	\$ 14,619,868	\$ 1,224,834
<p>\$15,179,718 Regional Water and Sewer System Revenue Bond - Series 2010A - On June 29, 2010 the Authority issued \$15,179,718 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system, including the replacement of the Meadow Creek Sanitary Sewer Interceptor together with related expenses. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provided a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of \$513,715 from October 2012 through October 2030. Effective October 1, 2016, the interest rate was reduced to 2.05%, reducing semi-annual payments to \$481,261.</p>	9,051,281	780,952

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
<p>\$6,982,662 Regional Water and Sewer System Revenue Bond - Series 2011A - On March 17, 2011 the Authority issued \$6,982,662 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's sewer system including improvements necessary to address the wet weather flows at the Moores Creek Wastewater Treatment Plant. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provides a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of \$236,308 from October 2012 through October 2031. Effective October 1, 2016, the interest rate was reduced to 2.05%, reducing semi-annual payments to \$221,804.</p>	\$ 4,524,226	\$ 352,660
<p>\$1,017,338 Regional Water and Sewer System Revenue Bond - Series 2011B - On March 17, 2011 the Authority issued \$1,017,338 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's sewer system including improvements necessary to address the wet weather flows at the Moores Creek Wastewater Treatment Plant. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provided a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of \$34,429 from October 2012 through October 2031. The interest rate was reduced to 2.05% as of October 1, 2016, reducing semi-annual payments to \$31,666.</p>	645,899	50,347

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	<u>Total Amount</u>	<u>Amount Due Within One Year</u>
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
<p>\$4,241,488 Regional Water and Sewer System Revenue Bond - Series 2011D - On September 9, 2011 the Authority issued \$4,241,488 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provided a redemption schedule with an interest only payment due in October 2012 and semi-annual payments of principal and 2.93% interest of \$143,541 from April 2013 through April 2032. The interest rate was reduced to 2.05% effective October 1, 2016, and the semi-annual payments were reduced to \$134,475.</p>	\$ 2,848,218	\$ 211,640
<p>\$443,937 Regional Water and Sewer System Revenue Bond - Series 2011E - On September 9, 2011 the Authority issued \$443,937 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.</p> <p>The bond resolution provided a redemption schedule with an interest only payment due in October 2012 and semi-annual payments of principal and interest of \$15,024 from April 2013 through April 2032. The interest rate was reduced to 2.05% effective October 1, 2016, and the semi-annual payments were reduced to \$13,997.</p>	296,467	22,029

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
\$25,100,000 Water and Sewer System Revenue and Refunding Bonds, Series 2012A - On June 13, 2012, the Authority issued \$25,100,000 in Revenue and Refunding Bonds for purposes of financing various water and sewer capital projects and to refund Series 2001 bond with an outstanding amount of \$5,490,000 and Series 2003 bond with an outstanding amount of \$4,827,000. The bonds were issued at a premium in the amount of \$3,706,939.		
<p>The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from October 1, 2012 through October 1, 2042. The bonds bear interest at an annual rate ranging from 2.125% to 5.125%. The Authority refunded the 2001 and 2003 Series bonds to reduce its total debt service payments over the next 13 years by \$4.93 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1,079,384 after applying existing reserve funds of \$3.55 million.</p>		
<p>On November 20, 2019, the Authority issued Bond Series 2019 to refund \$15,855,000 of Bond Series 2012A. Annual principal payments of \$630,000 to \$685,000 and semiannual interest payments are due through October 1, 2022.</p>	\$ 1,970,000	\$ 630,000
\$29,043,290 Water and Sewer Revenue Bonds, Series 2014A - On March 28, 2014, the Authority issued \$29,043,290 in revenue bonds for purposes of financing capital improvements and capacity upgrades of the Rivanna Interceptor and pump station at Moores Creek Wastewater Treatment Plant.		
<p>The bond resolution provides a redemption schedule with interest and principal of \$941,168 due semi-annually from April 1, 2017 through April 1, 2036. An interest only payment is due on October 1, 2016. The bonds bear interest at an annual rate of 2.45%.</p>		
	24,700,501	1,284,996

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
<p>\$1,189,672 Water and Sewer Revenue Bonds, Series 2015A - On June 17, 2015, the Authority issued \$1,189,672 in revenue bonds for purposes of financing capital improvements including replacing the final phase of the Schenks Branch Interceptor.</p> <p>The bond resolution provides a redemption schedule with an interest payment due October 1, 2016 and interest and principal payments of \$35,296 due semi-annually from April 1, 2017 through April 1, 2036. The bonds bear interest at an annual rate of 1.5%.</p>	\$ 997,835	\$ 55,834
<p>\$44,495,000 Taxable Water and Sewer System Revenue and Refunding Bonds, Series 2015B - On November 18, 2015, the Authority issued \$44,495,000 in Revenue and Refunding Bonds for purposes of financing various water capital projects and to refund Series 2005B bond with an outstanding amount of \$20,455,000. The bonds were issued at a premium in the amount of \$5,329,294.</p> <p>The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2016 through October 1, 2045 for total payments of \$1.7 to \$3.3 million per year. The bonds bear interest at an annual rate ranging from 3.094% to 5.125%. The Authority refunded the 2005B Series bonds to reduce its total debt service payments over the next 20 years by \$4.45 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of \$3.51 million.</p>	38,980,000	1,545,000
<p>\$10,000,000 Taxable Regional Water and Sewer Revenue Bonds, Series 2016 - On December 8, 2016, the Authority issued \$10,000,000 in revenue bonds for purposes of financing various capital improvements.</p> <p>The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2017 through October 1, 2036. The bonds bear interest at an annual rate of 2.35%. Total debt service payments are approximately \$627,000 per year.</p>	8,782,000	425,000

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	<u>Total Amount</u>	<u>Amount Due Within One Year</u>
<u>Revenue Bonds (Continued)</u>		
<u>Direct Borrowings and Direct Placements (Continued)</u>		
\$36,855,000 Taxable Regional Water and Sewer Revenue Bonds, Series 2018 - On November 14, 2018 the Authority issued \$36,855,000 in revenue bonds for purposes of financing various capital improvements.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2019 through October 1, 2048. The bonds bear interest at a variable annual rate of 4.125% to 5.125%. Total debt service payments are approximately \$2.26 million per year. The bonds were issued at a premium in the amount of \$2,389,821.		
	\$ 36,295,000	\$ 590,000
\$17,610,000 Taxable Water and Sewer System Revenue and Refunding Bonds, Series 2019 - On November 20, 2019, the Authority issued \$17,610,000 in Revenue and Refunding Bonds for purpose of partially refunding Series 2012A. The bonds were issued at a discount in the amount of \$33,492.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2020 through October 1, 2042 for total payments of \$0.7 to \$1.4 million per year. The bonds bear interest at an annual rate ranging from 1.952% to 3.424%. The Authority refunded \$15,855,000 of the 2012A Series bonds to reduce its total debt service payments over the next 20 years by \$2.28 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1.64 million.		
	<u>17,610,000</u>	<u>180,000</u>
Total Revenue Bonds	\$ 184,320,942	\$ 8,155,577
Issuance premiums (discounts)	7,016,194	-
VERIP liability	490,794	178,972
Compensated absences	491,718	377,000
Net OPEB liability	428,948	-
Net pension liability	<u>3,325,528</u>	<u>-</u>
Total	<u>\$ 196,074,124</u>	<u>\$ 8,711,549</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 6—Long-Term Obligations: (Continued)

C. Annual Amortization of Long-Term Debt

The annual requirements to amortize all long-term debt outstanding as of June 30, 2020 are as follows:

Year Ending June 30,	Revenue Bonds			
	Direct Borrowings and Direct Placements		Public Offerings	
	Interest	Principal	Interest	Principal
2021	\$ 5,555,987	\$ 7,485,577	\$ 668,656	\$ 670,000
2022	5,312,339	7,723,975	644,706	695,000
2023	5,049,282	7,990,760	616,306	725,000
2024	4,783,303	8,258,992	586,706	755,000
2025	4,516,210	8,525,730	563,372	775,000
2026-2030	18,498,024	43,851,452	2,519,019	4,185,000
2031-2035	12,626,640	29,707,778	1,877,600	4,820,000
2036-2040	8,279,454	20,146,678	1,084,175	5,610,000
2041-2045	4,383,839	18,705,000	189,475	3,830,000
2046-2049	855,931	9,860,000	-	-
Total	\$ <u>69,861,009</u>	\$ <u>162,255,942</u>	\$ <u>8,750,015</u>	\$ <u>22,065,000</u>

D. Prior Year Defeasance of Debt

In prior years, the Authority defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the Authority's financial statements.

Note 7—Compensated Absences:

Authority employees earn vacation leave each month at a scheduled rate in accordance with the years of service and sick leave at the rate of eight hours per month. Accumulated unpaid vacation leave amounts are accrued when incurred. At June 30, 2020 and 2019, the liability for accrued vacation leave was \$491,718 and \$429,107, respectively.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8—Pension Plan:

Plan Description

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

Benefit Structures

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

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

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8—Pension Plan: (Continued)

Average Final Compensation and Service Retirement Multiplier

The VRS defined benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the employee's average final compensation multiplied by the employee's total service credit. Under Plan 1, average final compensation is the average of the employee's 36 consecutive months of highest compensation and the multiplier is 1.70% for non-hazardous duty employees. Under Plan 2, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the retirement multiplier is 1.65% for non-hazardous duty employees. Under the Hybrid Plan, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the multiplier is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

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

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

Employees Covered by Benefit Terms

As of the June 30, 2018 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	<u>2020</u>	<u>2019</u>
Inactive members or their beneficiaries currently receiving benefits	62	56
Inactive members:		
Vested inactive members	23	17
Non-vested inactive members	21	18
Long-term disability (LTD)	0	0
Inactive members active elsewhere in VRS	<u>34</u>	<u>39</u>
Total inactive members	78	74
Active members	<u>87</u>	<u>83</u>
Total covered employees	<u><u>227</u></u>	<u><u>213</u></u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8—Pension Plan: (Continued)

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.

The Authority's contractually required employer contribution rate for the years ended June 30, 2020 and 2019 was 8.14% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$403,941 and \$389,097 for the years ended June 30, 2020 and June 30, 2019, respectively.

Net Pension Liability

The net pension liability (NPL) is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. For the Authority, the net pension liability was measured as of June 30, 2019. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2018 rolled forward to the measurement date of June 30, 2019.

Actuarial Assumptions – General Employees

The total pension liability for General Employees in the Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2018, 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, 2019.

Inflation	2.5%
Salary increases, including inflation	3.5% – 5.35%
Investment rate of return	6.75%, net of pension plan investment expense, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of pension liabilities.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8–Pension Plan: (Continued)

Actuarial Assumptions – General Employees: (Continued)

Mortality rates:

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

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8—Pension Plan: (Continued)

Long-Term Expected Rate of Return

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

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	34.00%	5.61%	1.91%
Fixed Income	15.00%	0.88%	0.13%
Credit Strategies	14.00%	5.13%	0.72%
Real Assets	14.00%	5.27%	0.74%
Private Equity	14.00%	8.77%	1.23%
MAPS - Multi-Asset Public Strategies	6.00%	3.52%	0.21%
PIP - Private Investment Partnership	3.00%	6.29%	0.19%
Total	100.00%		5.13%
		Inflation	2.50%
		*Expected arithmetic nominal return	7.63%

* The above allocation provides a one-year return of 7.63%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Authority was also provided with an opportunity to use an alternative employer

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8–Pension Plan: (Continued)

Discount Rate (Continued)

contribution rate. For the year ended June 30, 2019, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017 actuarial valuations, whichever was greater. From July 1, 2019 on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

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, 2018	\$ 22,627,993	\$ 20,057,178	\$ 2,570,815
Changes for the year:			
Service cost	\$ 416,525	\$ -	\$ 416,525
Interest	1,542,498	-	1,542,498
Differences between expected and actual experience	75,270	-	75,270
Assumption changes	655,287		655,287
Contributions - employer	-	388,000	(388,000)
Contributions - employee	-	239,360	(239,360)
Net investment income	-	1,321,667	(1,321,667)
Benefit payments, including refunds	(1,157,681)	(1,157,681)	-
Refunds of employee contributions	(26,924)	(26,924)	-
Administrative expenses	-	(13,329)	13,329
Other changes	-	(831)	831
Net changes	<u>\$ 1,504,975</u>	<u>\$ 750,262</u>	<u>\$ 754,713</u>
Balances at June 30, 2019	<u>\$ 24,132,968</u>	<u>\$ 20,807,440</u>	<u>\$ 3,325,528</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8–Pension Plan: (Continued)

Changes in Net Pension Liability: (Continued)

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2017	\$ 21,977,526	\$ 19,053,943	\$ 2,923,583
Changes for the year:			
Service cost	\$ 414,140	\$ -	\$ 414,140
Interest	1,501,555	-	1,501,555
Differences between expected and actual experience	(211,755)	-	(211,755)
Contributions - employer	-	438,811	(438,811)
Contributions - employee	-	227,140	(227,140)
Net investment income	-	1,404,233	(1,404,233)
Benefit payments, including refunds	(995,470)	(995,470)	-
Refunds of employee contributions	(58,003)	(58,003)	-
Administrative expenses	-	(12,231)	12,231
Other changes	-	(1,245)	1,245
Net changes	\$ 650,467	\$ 1,003,235	\$ (352,768)
Balances at June 30, 2018	\$ 22,627,993	\$ 20,057,178	\$ 2,570,815

Sensitivity of the Net Pension Liability to Changes in the Discount Rate as of June 30, 2020

The following presents the net pension liability of the Authority using the discount rate of 6.75%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

Rivanna Water & Sewer Authority's Net Pension Liability	Rate		
	1% Decrease (5.75%)	Current Discount (6.75%)	1% Increase (7.75%)
2020	\$ 6,278,943	\$ 3,325,528	\$ 957,760

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8–Pension Plan: (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate as of June 30, 2019

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

Rivanna Water & Sewer Authority's Net Pension Liability	Rate		
	(6.00%)	(7.00%)	(8.00%)
2019	\$ 5,341,787	\$ 2,570,815	\$ 248,162

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

For the year ended June 30, 2020, the Authority recognized pension expense of \$516,583. At June 30, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 49,581	\$ 67,213
Changes in assumptions	431,640	-
Net difference between projected and actual earnings on pension plan investments	-	183,115
Employer contributions subsequent to the measurement date	403,941	-
Total	\$ 885,162	\$ 250,328

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8–Pension Plan: (Continued)

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

For the year ended June 30, 2019, the Authority recognized pension expense of \$100,098. At June 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 35,878	\$ 179,904
Changes in assumptions	-	78,766
Net difference between projected and actual earnings on pension plan investments	-	173,542
Employer contributions subsequent to the measurement date	<u>389,097</u>	<u>-</u>
Total	<u>\$ 424,975</u>	<u>\$ 432,212</u>

\$403,941 reported as deferred outflows of resources related to pensions resulting from the Authority’s contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>	
2021	\$ 175,765
2022	47,093
2023	(4,433)
2024	12,468
2025	-
2026	-
Thereafter	-

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 8—Pension Plan: (Continued)

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

\$389,097 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>	
2020	\$ (96,137)
2021	(86,038)
2022	(197,259)
2023	(16,900)
2024	-
2025	-
Thereafter	-

Pension Plan Data

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2019 Comprehensive Annual Financial Report (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2019-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

Note 9—Voluntary Early Retirement Incentive Program:

Rivanna Water and Sewer Authority has a Voluntary Early Retirement Incentive Program (VERIP) which provides for monthly payments to eligible employees for a period of up to five years after early retirement or until age 65, whichever comes first. Participants in the VERIP must be regular full-time employees eligible for early or full retirement under the provisions of the Virginia Retirement System (VRS) who have been employed by the Authority for 10 of the last 13 years prior to retirement. Employees retiring under the disability provisions of VRS and/or Social Security are not eligible for the VERIP. VERIP participants receive a stipend equal to the difference between (1) the annual VRS retirement benefit amount as reduced for early VRS retirement if appropriate and (2) the recomputed annual VRS benefit with the addition of the lesser of five more years of service or the number of additional years needed to reach age 65. The stipend is paid on a monthly basis. The participant may also receive a monthly payment equal to the amount of the Board's contribution toward an employee's health insurance, for as long as the employee is covered by VERIP benefits. Applications for the VERIP must be submitted to the Executive Director for approval. The Authority's estimated VERIP liability as of June 30, 2020 and 2019 was \$490,794 and \$583,922, respectively. The amount payable within the next year is \$178,972.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 10–Risk Management:

The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Authority joined together with other local governments in the Commonwealth to form the Virginia Risk Sharing Association, a public entity risk pool currently operating as a common risk management and insurance program for member governments. The Authority pays an annual premium to the pool for its workers compensation coverage, property and liability insurance. The Agreement for Formation of the association provides that the association will be self-sustaining through member premiums. Settled claims have not exceeded pool coverage in any of the past three fiscal years.

Note 11–Other Postemployment Benefits–Health Insurance:

The Authority previously provided post-retirement healthcare benefits for employees who were eligible under a single-employer defined benefit plan. The Plan and benefits have been terminated. Therefore, the Authority has no assets or liabilities to report as of June 30, 2017 or subsequent years.

Note 12–Group Life Insurance (GLI) Plan (OPEB Plan):

Plan Description

The Group Life Insurance (GLI) Plan was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. All full-time, salaried permanent employees of the state agencies, teachers, and employees of participating political subdivisions are automatically covered by the VRS GLI Plan upon employment. This is a cost-sharing multiple-employer plan administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

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

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

Eligible Employees

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

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Benefit Amounts

The GLI Plan is a defined benefit plan with several components. The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled. The accidental death benefit is double the natural death benefit. In addition to basic natural and accidental death benefits, the plan provides additional benefits provided under specific circumstances that include the following: accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option. The benefit amounts are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value. For covered members with at least 30 years of service credit, the minimum benefit payable was set at \$8,000 by statute in 2015. This will be increased annually based on the VRS Plan 2 cost-of-living adjustment calculation. The minimum benefit adjusted for the COLA was \$8,463 as of June 30, 2020.

Contributions

The contribution requirements for the GLI Plan are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Plan was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% x 60%) and the employer component was 0.52% (1.31% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the years ended June 30, 2020 and 2019 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the GLI Plan from the entity were \$29,203 and \$27,074 for the years ended June 30, 2020 and June 30, 2019, respectively.

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB

At June 30, 2020, the entity reported a liability of \$428,948 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2019 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2018, and rolled forward to the measurement date of June 30, 2019. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Program Plan for the year ended June 30, 2019 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2019, the participating employer's proportion was 0.02636% as compared to 0.02561% at June 30, 2018.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB: (Continued)

At June 30, 2019, the entity reported a liability of \$389,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2018 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Plan for the year ended June 30, 2018 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2018, the participating employer's proportion was 0.02561% as compared to 0.02503% at June 30, 2017.

For the year ended June 30, 2020, the participating employer recognized GLI OPEB expense of \$14,869. For the year ended June 30, 2019, the participating employer recognized GLI OPEB expense of \$6,000. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2020, the employer reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 28,528	\$ 5,564
Net difference between projected and actual earnings on GLI OPEB plan investments	-	8,811
Change in assumptions	27,081	12,935
Changes in proportion	21,946	-
Employer contributions subsequent to the measurement date	<u>29,203</u>	<u>-</u>
Total	<u>\$ 106,758</u>	<u>\$ 27,310</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB: (Continued)

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

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 19,000	\$ 7,000
Net difference between projected and actual earnings on GLI OPEB plan investments	-	13,000
Change in assumptions	-	16,000
Changes in proportion	15,000	-
Employer contributions subsequent to the measurement date	<u>27,074</u>	<u>-</u>
Total	<u>\$ 61,074</u>	<u>\$ 36,000</u>

\$29,203 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
2021	\$ 6,474
2022	6,474
2023	10,206
2024	12,747
2025	11,268
Thereafter	3,076

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB: (Continued)

\$27,074 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year Ended June 30

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

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2018, 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, 2019. Salary increases and mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS CAFR.

Inflation	2.5%
Salary increases, including inflation	3.5%–5.35%
Investment rate of return	6.75%, net of investment expenses, including inflation*

*Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of OPEB liabilities.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12–Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Actuarial Assumptions: (Continued)

Mortality Rates – Non-Largest Ten Locality Employers – General Employees

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016 , except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Net GLI OPEB Liability

The net OPEB liability (NOL) for the GLI Plan represents the plan's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2019, NOL amounts for the GLI Plan are as follows (amounts expressed in thousands):

		GLI OPEB Plan
Total GLI OPEB Liability	\$	3,390,238
Plan Fiduciary Net Position		1,762,972
GLI Net OPEB Liability (Asset)	\$	<u>1,627,266</u>
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		52.00%

The net OPEB liability (NOL) for the GLI Plan represents the plan's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2018, NOL amounts for the GLI Plan are as follows (amounts expressed in thousands):

		GLI OPEB Plan
Total GLI OPEB Liability	\$	3,113,508
Plan Fiduciary Net Position		1,594,773
Employers' Net GLI OPEB Liability (Asset)	\$	<u>1,518,735</u>
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		51.22%

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

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Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Long-Term Expected Rate of Return

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

<u>Asset Class (Strategy)</u>	<u>Target Allocation</u>	<u>Arithmetic Long-term Expected Rate of Return</u>	<u>Weighted Average Long-term Expected Rate of Return</u>
Public Equity	34.00%	5.61%	1.91%
Fixed Income	15.00%	0.88%	0.13%
Credit Strategies	14.00%	5.13%	0.72%
Real Assets	14.00%	5.27%	0.74%
Private Equity	14.00%	8.77%	1.23%
MAPS - Multi-Asset Public Strategies	6.00%	3.52%	0.21%
PIP - Private Investment Partnership	3.00%	6.29%	0.19%
Total	<u>100.00%</u>		<u>5.13%</u>
		Inflation	<u>2.50%</u>
		*Expected arithmetic nominal return	<u>7.63%</u>

*The above allocation provides a one-year return of 7.63%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

Discount Rate

The discount rate used to measure the total GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ended June 30, 2019, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly which was 100% of the actuarially determined contribution rate. From July 1, 2019 on, employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB’s fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

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Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 12–Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Sensitivity of the Employer’s Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate as of June 30, 2020

The following presents the employer’s proportionate share of the net GLI OPEB liability using the discount rate of 6.75%, as well as what the employer’s proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

Authority's proportionate share of the GLI Plan Net OPEB Liability	Rate		
	1% Decrease (5.75%)	Current Discount (6.75%)	1% Increase (7.75%)
2020	\$ 563,519	\$ 428,948	\$ 319,815

Sensitivity of the Employer’s Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate as of June 30, 2019

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

Authority's proportionate share of the GLI Plan Net OPEB Liability	Rate		
	1% Decrease (6.00%)	Current Discount (7.00%)	1% Increase (8.00%)
2019	\$ 509,000	\$ 389,000	\$ 292,000

GLI Plan Fiduciary Net Position

Detailed information about the GLI Program’s Fiduciary Net Position is available in the separately issued VRS 2019 Comprehensive Annual Financial Report (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2019-annual-report.pdf>, or by writing to the System’s Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Note 13–Related Parties:

Rivanna Solid Waste Authority (RSWA) and Rivanna Water and Sewer Authority (RWSA) share office space and administrative staff. Procedures are in place to ensure proper segregation of funds, purchasing activity, personnel and similar matters. RSWA pays RWSA monthly for its share of joint administrative expenses, which totaled \$466,000 in FY 2020 and \$460,000 in FY 2019 and for leachate acceptance and treatment of \$3,082 in FY 2020 and \$4,285 in FY 2019. Rivanna Solid Waste Authority billed Rivanna Water & Sewer Authority \$16,639 for hauling and tipping fees in FY 2020 and \$40,547 in the previous year. RSWA owed RWSA \$60,766 and \$49,683 at June 30, 2020 and 2019, respectively.

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 14—Construction Commitments:

Rivanna Water and Sewer Authority had the following significant construction contract commitments for capital projects as of June 30, 2020:

<u>Project</u>	<u>Remaining Commitment</u>
South Rivanna WTP Improvements	\$ 17,508,403
Observatory WTP Improvements	20,121,101
Crozet WTP Expansion	2,263,943
Interceptor Sewer & Manhole Repair-Phase 1	690,648
Beaver Creek Dam Alterations	677,028
Security Enhancements	514,939

The Authority had the following significant construction contract commitments for capital projects as of June 30, 2019:

<u>Project</u>	<u>Remaining Commitment</u>
South Rivanna WTP Improvements	\$ 979,717
Observatory WTP Improvements	1,172,845
Crozet WTP Expansion	6,488,676
Interceptor Sewer & Manhole Repair and Crozet Interceptor	921,762
Valve Repair-Replacement (Phase 2)	637,113
Beaver Creek Dam Alterations	712,760

These contracts give the Authority the right to terminate the contract for any reason.

Note 15—Fair Value Measures:

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

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

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 15—Fair Value Measures: (Continued)

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

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

	Fair Value Measurements at Reporting Date Using			
	Total June 30, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Agencies Securities	\$ 1,765	\$ 1,765	\$ -	\$ -
U.S. Treasury & Agency Money Market Funds	7,386,976	7,386,976	-	-
U.S. Treasury Notes & Bonds	2,049,770	2,049,770	-	-
Total by fair value level	<u>\$ 9,438,511</u>	<u>\$ 9,438,511</u>	<u>\$ -</u>	<u>\$ -</u>

Investments measured at the net asset value (NAV)

VML/VACo Virginia Investment Pool	<u>\$ 10,540,185</u>
Total measured at the NAV	<u>\$ 10,540,185</u>

	Fair Value Measurements at Reporting Date Using			
	Total June 30, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Agencies Securities	\$ 2,454	\$ 2,454	\$ -	\$ -
U.S. Treasury & Agency Money Market Funds	7,118,324	7,118,324	-	-
U.S. Treasury Notes & Bonds	1,995,240	1,995,240	-	-
Total by fair value level	<u>\$ 9,116,018</u>	<u>\$ 9,116,018</u>	<u>\$ -</u>	<u>\$ -</u>

Investments measured at the net asset value (NAV)

VML/VACo Virginia Investment Pool	<u>\$ 10,368,384</u>
Total measured at the NAV	<u>\$ 10,368,384</u>

RIVANNA WATER & SEWER AUTHORITY

Notes to the Financial Statements
At June 30, 2020 and 2019 (Continued)

Note 16–COVID-19 Pandemic:

On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, which has caused an economic downturn on a global scale, disrupted global supply chains, and created significant uncertainty, volatility, and disruption across economies and financial markets. The full impact of the COVID-19 outbreak continues to evolve as of the release date of this report. Management is monitoring the situation and impact that it may have on its financial condition, liquidity, operations, suppliers, industry, and workforce. Given the daily evolution of the COVID-19 outbreak and global responses to curb its spread, the Authority is not able to estimate the effects of the COVID-19 outbreak on its results of operations, financial condition, or liquidity for fiscal year 2021.

Note 17–Upcoming Pronouncements:

Statement No. 87, *Leases*, requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of this Statement are effective for reporting periods beginning after June 15, 2021.

Statement No. 92, *Omnibus 2020*, addresses practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics such as leases, assets related to pension and postemployment benefits, and reference to nonrecurring fair value measurements of assets or liabilities in authoritative literature. The effective dates differ by topic, ranging from January 2020 to periods beginning after June 15, 2021.

Statement No. 93, *Replacement of Interbank Offered Rates*, establishes accounting and financial reporting requirements related to the replacement of Interbank Offered Rates (IBORs) in hedging derivative instruments and leases. It also identifies appropriate benchmark interest rates for hedging derivative instruments. The requirements of this Statement, except for removal of London Interbank Offered Rate (LIBOR) as an appropriate benchmark interest rate and the requirements related to lease modifications, are effective for reporting periods beginning after June 15, 2020. The removal of LIBOR as an appropriate benchmark interest rate is effective for reporting periods ending after December 31, 2021. All requirements related to lease modifications in this Statement are effective for reporting periods beginning after June 15, 2021.

Required Supplementary Information

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RIVANNA WATER & SEWER AUTHORITY

Schedule of Changes in Net Pension Liability and Related Ratios
Pension Plan
For the Measurement Dates of June 30, 2014 through June 30, 2019

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability						
Service cost	\$ 416,525	\$ 414,140	\$ 398,833	\$ 420,980	\$ 397,302	\$ 408,618
Interest	1,542,498	1,501,555	1,465,426	1,376,398	1,308,253	1,243,939
Changes in benefit terms	-	-	-	-	-	-
Differences between expected and actual experience	75,270	(211,755)	(123,760)	343,405	43,130	-
Changes of assumptions	655,287	-	(241,172)	-	-	-
Benefit payments	(1,184,605)	(1,053,473)	(912,902)	(825,031)	(725,341)	(742,220)
Net change in total pension liability	<u>\$ 1,504,975</u>	<u>\$ 650,467</u>	<u>\$ 586,425</u>	<u>\$ 1,315,752</u>	<u>\$ 1,023,344</u>	<u>\$ 910,337</u>
Total pension liability - beginning	<u>22,627,993</u>	<u>21,977,526</u>	<u>21,391,101</u>	<u>20,075,349</u>	<u>19,052,005</u>	<u>18,141,668</u>
Total pension liability - ending (a)	<u>\$ 24,132,968</u>	<u>\$ 22,627,993</u>	<u>\$ 21,977,526</u>	<u>\$ 21,391,101</u>	<u>\$ 20,075,349</u>	<u>\$ 19,052,005</u>
Plan fiduciary net position						
Contributions - employer	\$ 388,000	\$ 438,811	\$ 423,473	\$ 448,728	\$ 434,762	\$ 428,309
Contributions - employee	239,360	227,140	237,015	216,819	230,505	204,334
Net investment income	1,321,667	1,404,233	2,098,047	298,454	754,877	2,256,556
Benefit payments	(1,184,605)	(1,053,473)	(912,902)	(825,031)	(725,341)	(742,220)
Administrator charges	(13,329)	(12,231)	(12,137)	(10,631)	(10,246)	(12,143)
Other	(831)	(1,245)	(1,862)	(126)	(160)	119
Net change in plan fiduciary net position	<u>\$ 750,262</u>	<u>\$ 1,003,235</u>	<u>\$ 1,831,634</u>	<u>\$ 128,213</u>	<u>\$ 684,397</u>	<u>\$ 2,134,955</u>
Plan fiduciary net position - beginning	<u>20,057,178</u>	<u>19,053,943</u>	<u>17,222,309</u>	<u>17,094,096</u>	<u>16,409,699</u>	<u>14,274,744</u>
Plan fiduciary net position - ending (b)	<u>\$ 20,807,440</u>	<u>\$ 20,057,178</u>	<u>\$ 19,053,943</u>	<u>\$ 17,222,309</u>	<u>\$ 17,094,096</u>	<u>\$ 16,409,699</u>
Authority's net pension liability - ending (a) - (b)	\$ 3,325,528	\$ 2,570,815	\$ 2,923,583	\$ 4,168,792	\$ 2,981,253	\$ 2,642,306
Plan fiduciary net position as a percentage of the total pension liability	86.22%	88.64%	86.70%	80.51%	85.15%	86.13%
Covered payroll	\$ 5,175,437	\$ 4,868,672	\$ 4,613,774	\$ 4,403,235	\$ 4,232,146	\$ 4,087,133
Authority's net pension liability as a percentage of covered payroll	64.26%	52.80%	63.37%	94.68%	70.44%	64.65%

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

RIVANNA WATER & SEWER AUTHORITYSchedule of Employer Contributions
Pension PlanFor the Years Ended June 30, 2011 through June 30, 2020

Fiscal Year	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2020	\$ 403,941	\$ 403,941	\$ -	\$ 5,571,372	7.25%
2019	389,097	389,097	-	5,175,437	7.52%
2018	438,760	438,760	-	4,868,672	9.01%
2017	423,477	423,477	-	4,613,774	9.18%
2016	451,771	451,771	-	4,403,235	10.26%
2015	435,295	435,295	-	4,232,146	10.29%
2014	428,317	428,317	-	4,087,133	10.48%
2013	426,490	426,490	-	4,078,576	10.46%
2012	308,088	308,088	-	3,885,089	7.93%
2011	297,182	297,182	-	3,747,565	7.93%

RIVANNA WATER & SEWER AUTHORITY

Notes to Required Supplementary Information
Pension Plan
For the Year Ended June 30, 2020

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

Changes of assumptions – The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

RIVANNA WATER & SEWER AUTHORITY

Schedule of Authority's Share of Net OPEB Liability
 Group Life Insurance (GLI) Plan
 For the Measurement Dates of June 30, 2017 through June 30, 2019

Date (1)	Employer's Proportion of the Net GLI OPEB Liability (Asset) (2)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage of Covered Payroll (3)/(4) (5)	Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability (6)
2019	0.02636% \$	428,948 \$	5,175,437	8.29%	52.00%
2018	0.02561%	389,000	4,868,672	7.99%	51.22%
2017	0.02503%	376,000	4,613,774	8.15%	48.86%

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

RIVANNA WATER & SEWER AUTHORITY

Schedule of Employer Contributions

Group Life Insurance (GLI) Plan

For the Years Ended June 30, 2017 through June 30, 2020

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2020	\$ 29,203	\$ 29,203	\$ -	\$ 5,571,372	0.52%
2019	27,074	27,074	-	5,175,437	0.52%
2018	25,512	25,512	-	4,868,672	0.52%
2017	24,197	24,197	-	4,613,774	0.52%

Schedule is intended to show information for 10 years. Information prior to 2017 is unavailable. However, additional years will be included as they become available.

RIVANNA WATER & SEWER AUTHORITY

Notes to Required Supplementary Information
Group Life Insurance (GLI) Plan
For the Year Ended June 30, 2020

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

Changes of assumptions – The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Non-Largest Ten Locality Employers - General Employees

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14.00% to 15.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

Statistical Section

Contents

Tables

Financial Trends

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

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Revenues, Rates and Usage Information

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

3-5

Expenses

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

6

Debt Capacity

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

7-8

Demographic and Economic Information

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

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Operating Information

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

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Other Information

These tables contain miscellaneous data from related organizations, Albemarle County Service Authority and the City of Charlottesville.

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

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RIVANNA WATER & SEWER AUTHORITY

Table 1

Net Position by Component
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Net investment in capital assets	\$ 119,947,988	\$ 113,396,071	\$ 114,137,186	\$ 105,412,275	\$ 101,129,762	\$ 99,020,753	\$ 93,538,673	\$ 87,302,949	\$ 86,135,840	\$ 77,662,172
Restricted	4,552,818	4,278,445	3,794,293	3,729,350	3,335,539	2,940,314	2,870,788	2,782,090	3,173,804	3,048,111
Unrestricted	32,197,029	34,593,713	29,141,487	32,621,982	31,189,295	28,812,875	32,388,908	31,510,133	24,483,936	23,156,625
Total net position	<u>\$ 156,697,835</u>	<u>\$ 152,268,229</u>	<u>\$ 147,072,966</u>	<u>\$ 141,763,607</u>	<u>\$ 135,654,596</u>	<u>\$ 130,773,942</u>	<u>\$ 128,798,369</u>	<u>\$ 121,595,172</u>	<u>\$ 113,793,580</u>	<u>\$ 103,866,908</u>

RIVANNA WATER & SEWER AUTHORITY

Table 2

Changes in Net Position
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Operating revenues:										
Metered water sales	\$ 16,196,450	\$ 15,216,180	\$ 14,034,080	\$ 13,753,977	\$ 13,014,328	\$ 12,555,666	\$ 11,353,630	\$ 11,728,840	\$ 11,058,083	\$ 10,895,551
Wastewater service charges	17,999,007	18,821,857	14,858,101	14,444,159	14,799,741	13,625,855	14,620,353	13,889,105	12,807,628	11,069,488
Total operating revenues	\$ 34,195,457	\$ 34,038,037	\$ 28,892,181	\$ 28,198,136	\$ 27,814,069	\$ 26,181,521	\$ 25,973,983	\$ 25,617,945	\$ 23,865,711	\$ 21,965,039
Operating expenses:										
Personnel costs	\$ 8,693,477	\$ 7,728,340	\$ 7,385,978	\$ 7,483,807	\$ 6,155,243	\$ 5,878,175	\$ 5,756,273	\$ 5,928,994	\$ 5,879,080	\$ 5,525,332
Professional services	1,048,839	994,207	738,823	885,072	602,891	473,193	418,858	282,427	336,166	338,814
Other services and charges	3,676,790	3,770,051	3,341,421	2,764,905	2,607,118	2,532,408	2,683,136	2,430,718	2,463,176	2,341,123
Operations and maintenance	5,423,447	5,799,962	4,169,065	4,214,246	4,710,701	3,991,590	3,543,311	3,383,574	3,201,971	2,415,211
Depreciation	7,330,242	6,704,908	5,773,757	5,411,996	5,396,029	4,983,753	4,662,094	3,601,730	2,965,612	2,962,912
Total operating expenses	\$ 26,172,795	\$ 24,997,468	\$ 21,409,044	\$ 20,760,026	\$ 19,471,982	\$ 17,859,119	\$ 17,063,672	\$ 15,627,443	\$ 14,846,005	\$ 13,583,392
Operating income	\$ 8,022,662	\$ 9,040,569	\$ 7,483,137	\$ 7,438,110	\$ 8,342,087	\$ 8,322,402	\$ 8,910,311	\$ 9,990,502	\$ 9,019,706	\$ 8,381,647
Nonoperating revenues (expenses):										
Investment earnings	\$ 1,243,884	\$ 1,599,486	\$ 525,039	\$ 296,433	\$ 369,675	\$ 82,083	\$ 92,839	\$ 157,526	\$ 124,832	\$ 120,623
Buck Mountain revenue	57,100	111,700	125,900	115,700	84,000	74,900	89,000	78,000	68,200	52,400
Administrative reimbursement	471,937	474,246	436,329	328,000	299,000	265,000	257,000	257,000	276,000	277,000
Other revenues	588,146	380,737	302,920	305,763	370,173	337,148	251,373	225,034	214,908	256,541
Interest expense	(5,733,428)	(5,947,988)	(2,643,801)	(2,248,229)	(4,027,843)	(3,608,072)	(2,336,245)	(2,552,331)	(1,830,696)	(2,607,502)
Debt issuance costs	(220,695)	(463,487)	-	(126,766)	(556,438)	(59,273)	(61,081)	(580,404)	-	-
Amortization expense	-	-	-	-	-	-	-	-	-	(86,827)
Total nonoperating revenues (expenses)	\$ (3,593,056)	\$ (3,845,306)	\$ (1,253,613)	\$ (1,329,099)	\$ (3,461,433)	\$ (2,908,214)	\$ (1,707,114)	\$ (2,415,175)	\$ (1,146,756)	\$ (1,987,765)
Income before capital grants	\$ 4,429,606	\$ 5,195,263	\$ 6,229,524	\$ 6,109,011	\$ 4,880,654	\$ 5,414,188	\$ 7,203,197	\$ 7,575,327	\$ 7,872,950	\$ 6,393,882
Capital grants	-	-	-	-	-	-	-	226,265	3,003,552	6,080,256
Change in net position	\$ 4,429,606	\$ 5,195,263	\$ 6,229,524	\$ 6,109,011	\$ 4,880,654	\$ 5,414,188	\$ 7,203,197	\$ 7,801,592	\$ 10,876,502	\$ 12,474,138

RIVANNA WATER & SEWER AUTHORITY

Table 3

Revenues by Source
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Operating Revenues			Nonoperating Revenues			Total Nonoperating Revenues	Other Capital Grants and Contributions	Total Revenues
	Water Sales	Wastewater Service Charges	Total Operating Revenues	Investment Earnings	Buck Mountain Revenue	Other Revenue			
2011	\$ 10,895,551	\$ 11,069,488	\$ 21,965,039	\$ 120,623	\$ 52,400	\$ 533,541	\$ 706,564	\$ 6,080,256	\$ 28,751,859
2012	11,058,083	12,807,628	23,865,711	124,832	68,200	490,908	683,940	3,003,552	27,553,203
2013	11,728,840	13,889,105	25,617,945	157,526	78,000	482,034	717,560	226,265	26,561,770
2014	11,353,630	14,620,353	25,973,983	92,839	89,000	508,373	690,212	-	26,664,195
2015	12,555,666	13,625,855	26,181,521	82,083	74,900	602,148	759,131	-	26,940,652
2016	13,014,328	14,799,741	27,814,069	369,675	84,000	669,173	1,122,848	-	28,936,917
2017	13,753,977	14,444,159	28,198,136	296,433	115,700	633,763	1,045,896	-	29,244,032
2018	14,034,080	14,858,101	28,892,181	525,039	125,900	739,249	1,390,188	-	30,282,369
2019	15,216,180	18,821,857	34,038,037	1,599,486	111,700	854,983	2,566,169	-	36,604,206
2020	16,196,450	17,999,007	34,195,457	1,243,884	57,100	471,937	1,772,921	-	35,968,378

RIVANNA WATER & SEWER AUTHORITY

Table 4

Water and Wastewater Rates and Flows
Last Ten Fiscal Years

	Fiscal Years Ended June 30,											
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011		
Rates:												
					*Note 1 (7/1-10/31/15)							
Urban Water - City (per 1,000 gallons)	***	***	***	***	\$ 2.756	\$ 2.663	\$ 2.341	\$ 2.443	\$ 2.403	\$ 2.438		
Urban Water - ACSA (per 1,000 gallons)	***	***	***	***	\$ 3.795	\$ 3.687	\$ 3.333	\$ 3.465	\$ 3.439	\$ 3.305		
Crozet Water (per month)	\$ 195,010	\$ 162,746	\$ 133,901	\$ 124,149	\$ 111,330	\$ 91,942	\$ 84,630	\$ 82,916	\$ 60,853	\$ 50,712		
Scottsville Water (per month)	\$ 54,130	\$ 47,717	\$ 45,140	\$ 43,382	\$ 49,012	\$ 41,343	\$ 41,047	\$ 36,280	\$ 31,665	\$ 32,834		
Urban Wastewater - City (per 1,000 gallons)	***	***	***	***	\$ 3.954	\$ 3.822	\$ 3.593	\$ 3.565	\$ 3.179	\$ 2.878		
Urban Wastewater - ACSA (per 1,000 gallons)	***	***	***	***	\$ 3.560	\$ 3.435	\$ 3.463	\$ 3.732	\$ 3.348	\$ 3.048		
Glenmore Wastewater (per month)	\$ 31,192	\$ 31,192	\$ 29,494	\$ 26,694	\$ 25,211	\$ 24,451	\$ 24,189	\$ 23,436	\$ 23,246	\$ 21,806		
Scottsville Wastewater (per month)	\$ 26,536	\$ 25,823	\$ 24,410	\$ 21,941	\$ 21,425	\$ 28,879	\$ 28,295	\$ 27,619	\$ 26,579	\$ 25,603		

*Note 1:

The Fiscal Year 2016 Urban Water and Urban Wastewater rates were revised from the above stated rates to the following rates, effective 11/1/15-6/30/16:

In FY 2016, the Board of Directors amended the Service Agreement to go from a rate per 1,000 gallons to a fixed monthly charge for all debt service costs.

Urban rates are stated below along with prior years' rates restated below as fixed monthly charges for comparison purposes based on estimated flows.

***Urban Rates:

Urban Water:

Operations - City & ACSA (per 1,000 gallons)	\$ 2.095	\$ 2.070	\$ 1.969	\$ 1.833	\$ 1.713	\$ 1.683	\$ 1.462	\$ 1.320	\$ 1.315	\$ 1.288
Debt Service - City (per month)	\$ 193,580	\$ 181,008	\$ 160,039	\$ 162,968	\$ 158,099	\$ 148,549	\$ 133,156	\$ 173,354	\$ 177,435	\$ 177,607
Debt Service - ACSA (per month)	\$ 321,303	\$ 307,598	\$ 285,439	\$ 284,031	\$ 279,864	\$ 269,379	\$ 251,418	\$ 282,114	\$ 267,054	\$ 265,358

Urban Wastewater:

Operations - City & ACSA (per 1,000 gallons)	\$ 2.369	\$ 2.146	\$ 1.951	\$ 1.835	\$ 1.789	\$ 1.768	\$ 1.827	\$ 1.869	\$ 1.734	\$ 1.637
Debt Service - City (per month)	\$ 407,588	\$ 408,260	\$ 392,841	\$ 369,037	\$ 333,645	\$ 310,678	\$ 272,220	\$ 254,371	\$ 224,549	\$ 192,848
Debt Service - ACSA (per month)	\$ 278,174	\$ 246,308	\$ 222,550	\$ 222,280	\$ 232,493	\$ 223,598	\$ 214,771	\$ 228,557	\$ 189,209	\$ 165,411

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Flows (in million gallons per day):										
Urban Water	9.191	8.967	9.100	9.535	9.359	9.540	9.618	9.647	9.454	9.569
Crozet Water	0.599	0.563	0.532	0.544	0.541	0.546	0.566	0.503	0.450	0.436
Scottsville Water	0.049	0.043	0.045	0.050	0.048	0.049	0.056	0.053	0.049	0.056
	9.839	9.573	9.677	10.129	9.948	10.135	10.240	10.203	9.953	10.061
Urban Wastewater	9.822	12.530	9.083	9.483	10.352	9.481	10.566	9.719	10.014	9.442
Glenmore Wastewater	0.098	0.138	0.120	0.107	0.107	0.101	0.114	0.121	0.122	0.137
Scottsville Wastewater	0.057	0.086	0.056	0.053	0.071	0.050	0.066	0.050	0.054	0.054
	9.977	12.754	9.259	9.643	10.530	9.632	10.746	9.890	10.190	9.633

RIVANNA WATER & SEWER AUTHORITY

Table 5

Ten Largest Customers
Current Year and Nine Years Ago

	Fiscal Year 2020 (Current Year)			
	Water Revenue		Wastewater Revenue	
	Amount	%	Amount	%
Albemarle County Service Authority	\$ 10,322,172	63.73%	\$ 8,377,599	46.54%
City of Charlottesville	\$ 5,874,278	36.27%	\$ 9,053,496	50.30%
Others	\$ -	0.00%	\$ 567,912	3.16%
	<u>\$ 16,196,450</u>	<u>100.00%</u>	<u>\$ 17,999,007</u>	<u>100.00%</u>

	Fiscal Year 2011 (Nine Years Ago)			
	Water Revenue		Wastewater Revenue	
	Amount	%	Amount	%
Albemarle County Service Authority	\$ 6,287,772	57.71%	\$ 5,264,520	47.56%
City of Charlottesville	\$ 4,607,779	42.29%	\$ 5,541,730	50.06%
Others	\$ -	0.00%	\$ 263,238	2.38%
	<u>\$ 10,895,551</u>	<u>100.00%</u>	<u>\$ 11,069,488</u>	<u>100.00%</u>

Note: The Authority's two wholesale customers, which are both governmental entities, provided 100% of water revenue and 97% of wastewater revenue in FY 2020 and FY 2011. The remaining wastewater revenue came from septage acceptance customers. Due to lack of materiality, the number of customers by type that provide that revenue is not presented here.

RIVANNA WATER & SEWER AUTHORITY

Table 6

Expenses by Type
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Operations	Depreciation	Interest and Amortization	Bond Issuance Costs	Total
2011	\$ 10,620,480	\$ 2,962,912	\$ 2,694,329	\$ -	\$ 16,277,721
2012	11,880,393	2,965,612	1,830,696	-	16,676,701
2013	12,025,713	3,601,730	2,552,331	580,404	18,760,178
2014	12,401,578	4,662,094	2,336,245	61,081	19,460,998
2015	12,875,366	4,983,753	3,608,072	59,273	21,526,464
2016	14,075,953	5,396,029	4,027,843	556,438	24,056,263
2017	15,348,030	5,411,996	2,248,229	126,766	23,135,021
2018	15,635,287	5,805,362	2,643,801	-	24,084,450
2019	18,292,560	6,704,908	5,947,988	463,487	31,408,943
2020	18,842,553	7,330,242	5,733,428	220,695	32,126,918

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RIVANNA WATER & SEWER AUTHORITY

Table 7

Outstanding Debt by Type
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Revenue bonds payable	\$ 191,337,136	\$ 200,123,490	\$ 167,896,198	\$ 173,020,453	\$ 160,512,250	\$ 124,670,205	\$ 125,680,526	\$ 127,548,686	\$ 103,834,145	\$ 73,831,274
Total outstanding debt	<u>\$ 191,337,136</u>	<u>\$ 200,123,490</u>	<u>\$ 167,896,198</u>	<u>\$ 173,020,453</u>	<u>\$ 160,512,250</u>	<u>\$ 124,670,205</u>	<u>\$ 125,680,526</u>	<u>\$ 127,548,686</u>	<u>\$ 103,834,145</u>	<u>\$ 73,831,274</u>
Debt per capita	\$ 1,220	\$ 1,276	\$ 1,078	\$ 1,126	\$ 1,059	\$ 835	\$ 853	\$ 873	\$ 721	\$ 518
Debt as a percentage of personal income	1.6%	1.7%	1.5%	1.7%	1.7%	1.4%	1.5%	1.5%	1.4%	1.0%

Notes:

Debt per capita was calculated based on population figures for the calendar year (CY) ending within the fiscal year (FY) obtained from U.S. Department of Commerce - Bureau of Economic Analysis for the City of Charlottesville and County of Albemarle. See Table 9.

Debt as a percentage of personal income was calculated based on personal income for the CY ending within the FY obtained from U.S. Department of Commerce - Bureau of Economic Analysis for the City of Charlottesville and County of Albemarle. See Table 9.

RIVANNA WATER & SEWER AUTHORITY

Table 8

Revenue Bond Debt Service Coverage
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Gross Revenue (1)	Direct Operating Expense (2)	Net Available	Required Debt Service Payments (3)	Coverage
2011	\$ 22,671,603	\$ 10,620,480	\$ 12,051,123	\$ 6,962,703	1.7X
2012	24,549,651	11,880,393	12,669,258	6,724,261	1.9X
2013	26,335,505	12,025,713	14,309,792	8,234,169	1.7X
2014	26,664,195	12,401,578	14,262,617	9,089,702	1.6X
2015	26,940,652	12,875,366	14,065,286	9,094,732	1.5X
2016	28,936,917	14,075,953	14,860,964	9,567,370	1.6X
2017	29,244,032	15,348,030	13,896,002	11,912,673	1.2X
2018	30,282,369	15,635,287	14,647,082	12,370,197	1.2X
2019	36,604,206	18,292,560	18,311,646	13,087,353	1.4X
2020	35,968,378	18,842,553	17,125,825	14,473,237	1.2X

(1) Excluding grant revenue

(2) Excluding depreciation expense

(3) Including payments on revenue bonds and excluding any refunding since the payments were not required to be made in that year.

RIVANNA WATER AND SEWER AUTHORITY

Table 9

Demographic Data for the Service Area
 City of Charlottesville & Albemarle County, Virginia
 Last Ten Calendar Years

<u>Calendar Year</u>	<u>Population (2)</u>	<u>Personal Income (thousands of \$) (2)</u>	<u>Per Capita Personal Income (\$) (2)</u>	<u>Unemployment Rate (1)</u>
2010	142,659	\$ 7,240,429	\$ 50,753	6.5%
2011	143,960	7,657,164	53,190	5.9%
2012	146,043	8,457,472	57,911	5.5%
2013	147,286	8,328,130	56,544	5.0%
2014	149,265	8,935,308	59,862	4.6%
2015	151,552	9,550,724	63,019	3.9%
2016	153,644	10,091,356	65,680	3.6%
2017	155,690	11,027,861	70,832	3.3%
2018	156,835	11,702,008	74,613	2.8%
2019	not available	not available	not available	2.5%

Sources:

- (1) Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages - for Charlottesville Metropolitan Service Area (MSA)
- (2) U.S. Department of Commerce - Bureau of Economic Analysis - for City of Charlottesville and Albemarle County

RIVANNA WATER & SEWER AUTHORITY

Table 10

Principal Employers in the Charlottesville Area
Current Year and Nine Years Ago

Employer	First Quarter of 2020		Fourth Quarter of 2010	
	Number of Employees	Rank	Number of Employees	Rank
University of Virginia/ Blue Ridge Hospital	1,000 & over	1	1,000 & over	1
University of Virginia Medical Center			1,000 & over	2
County of Albemarle	1,000 & over	2	1,000 & over	3
Sentara Health Care	1,000 & over	3		
Martha Jefferson Hospital			1,000 & over	4
UVA Health Services Foundation	1,000 & over	4	1,000 & over	6
City of Charlottesville	1,000 & over	5	1,000 & over	5
Charlottesville City School Board	500-999	6	500-999	8
U.S. Department of Defense	500-999	7		
Servicelink Management Com Inc	500-999	8		
State Farm Mutual Automobile Insurance	500-999	9	1,000 & over	7
Fluvanna County Public School Board	500-999	10		
Aramark Campus LLC			500-999	9
Northrop Grumman Corporation			500-999	10

Source: Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages - for Charlottesville Metropolitan Service Area (MSA)

Each employer's percentage of total employment is not available.

RIVANNA WATER & SEWER AUTHORITY

Table 11

Number of Employees by Indentifiable Activity
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Number of budgeted full-time equivalent positions:										
Water (2)	26	26	25	23	23	23	22	23	23	23
Wastewater	16	16	16	17	17	17	17	18	18	15
Operations Management (2)	1	1	1	2	2	2	2	2	2	2
Administration & IT (3)	17	17	16	15	13	12	12	12	12	12
Laboratory	4	3	3	3	3	3	3	3	3	3
Director of Engineering & Maintenance	1	1								
Engineering	11	10	11	9	9	9	9	9	9	9
Maintenance (1)	17	17	16	16	17	17	17	16	16	15
Total	93	91	88	85	84	83	82	83	83	79

(1) Maintenance includes mechanics and maintenance workers for Water and Wastewater.

(2) The Water Resources Manager was reclassified from Operations Management to Engineering effective in fiscal year ended June 30, 2018.

(3) Administration staff is shared with Rivanna Solid Waste Authority.

Source: The above information is summarized from annual budgets.

RIVANNA WATER & SEWER AUTHORITY

Table 12

Operating and Capital Indicators
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Water										
Size of watershed (square miles)	766	766	766	766	766	766	766	766	766	766
Raw water safe yield (mgd)										
Urban system	18.8	18.8	18.8	18.8	18.8	12.8	12.8	12.8	12.8	12.8
Rural system	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Miles of pipelines	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
Number of treatment plants	5	5	5	5	5	5	5	5	5	5
Number of pumping stations	7	7	7	7	7	7	7	7	7	7
Number of reservoirs	4	4	4	4	4	4	4	4	4	4
Number of finished water storage tanks	11	11	11	11	11	11	11	11	11	11
Maximum treatment capacity (mgd)	22.750	22.750	22.750	22.750	22.750	22.750	22.750	22.750	22.750	22.750
Water treated (mgd)	9.839	9.573	9.677	10.129	9.948	10.135	10.240	10.203	9.953	10.061
Unused capacity (mgd)	12.911	13.177	13.073	12.621	12.802	12.615	12.510	12.547	12.797	12.689
Percentage of capacity utilized	43.25%	42.08%	42.54%	44.52%	43.73%	44.55%	45.01%	44.85%	43.75%	44.22%
Wastewater										
Miles of pipelines	37	37	37	37	37	37	37	37	37	37
Number of treatment plants	4	4	4	4	4	4	4	4	5	5
Number of pumping stations	7	7	7	7	7	7	7	7	7	7
Maximum treatment capacity (mgd)	15.945	15.945	15.945	15.945	15.945	15.945	15.945	15.945	15.945	15.945
Wastewater treated (mgd)	9.977	12.754	9.259	9.643	10.561	9.632	10.746	9.890	10.190	9.633
Unused capacity (mgd)	5.968	3.191	6.686	6.302	5.384	6.313	5.199	6.055	5.755	6.312
Percentage of capacity utilized	62.57%	79.99%	58.07%	60.48%	66.23%	60.41%	67.39%	62.03%	63.91%	60.41%

Notes: mgd = millions of gallons per day
Safe yield is a measure of raw water resources during a drought of record.

Source: Internal reports and records

Miscellaneous Statistical Data
 Albemarle County Service Authority

Year of Incorporation: 1964

Type of Entity:

Independent authority created pursuant to the "Virginia Water & Waste Authorities Act",
 Section 15.1-1239, Code of Virginia (1950), as amended

Number of water connections	20,787
Number of sewer connections	17,803
Miles of water lines	358
Miles of sewer lines	301
Number of fire hydrants	2,818

Rates (effective FY 2020) per 1,000 gallons metered consumption

Water	
Residential Water Rates and all irrigation usage:	
Level 1 (0-3,000 gallons per month)	\$4.48
Level 2 (3,001-6,000 gallons per month)	\$8.98
Level 3 (6,001-9,000 gallons per month)	\$13.46
Level 4 (over 9,000 gallons per month)	\$17.96
Non-Residential and Multi-Family Residential Water Rate (except irrigation water)	\$8.66
Wastewater	\$9.47

Ten Largest Customers in FY 2020

	Water			Wastewater		
	Billed (in gallons)	Rank	Percentage of Total	Billed (in gallons)	Rank	Percentage of Total
Southwood Mobile Homes	22,749,000	1	1.35%	22,831,462	1	1.58%
University of Virginia	22,140,400	2	1.32%	21,222,700	3	1.47%
SEMF Charleston	21,908,625	3	1.30%	21,908,625	2	1.51%
Old Salem Apts.	20,341,700	4	1.21%	20,341,700	4	1.41%
ACRJ	19,679,000	5	1.17%	18,683,000	6	1.29%
Abbingtion Crossing	19,255,000	6	1.14%	19,255,000	5	1.33%
Martha Jefferson Hospital	18,949,300	7	1.13%			0.00%
Westminster Canterbury	16,708,000	8	0.99%	15,861,000	9	1.10%
Four Seasons Apts.	16,415,000	9	0.98%	16,415,000	7	1.13%
Turtle Creek Apts.	16,023,300	10	0.95%	16,005,700	8	1.11%
Westgate Apts.				14,939,600	10	1.03%
	<u>194,169,325</u>		<u>11.53%</u>	<u>187,463,787</u>		<u>12.95%</u>

Miscellaneous Statistical Data
City of Charlottesville, Virginia

Date of incorporation	1888
Date present charter adopted	1976
Form of government	Council Manager
Area	10.4 square miles
Miles of streets	159.91
Number of water customers	15,307
Number of sewer customers	14,956
Miles of water lines	184
Miles of sanitary sewer lines	172
Number of fire hydrants	1117
Bond Rating	AAA/Aaa

Rates FY 2020 per 1,000 cubic feet:

Water	
May - Sept.	\$ 65.31
Oct. - Apr.	\$ 50.24
Wastewater	\$ 80.14

Ten Largest Customers in Fiscal Year 2020:

	Water			Wastewater		
	Water Consumption (in cubic feet)	Billed Revenue	Percentage of Total Revenue	Wastewater Treated (in cubic feet)	Billed Revenue	Percentage of Total Revenue
University of Virginia	53,400,739	\$ 2,742,450	21.76%	34,813,171	\$ 2,704,059	18.55%
Pepsi Cola	4,094,280	243,759	1.93%	1,045,980	85,218	0.58%
Charlottesville Redevelopment and Housing	3,452,811	201,072	1.60%	3,452,683	282,137	1.94%
City of Charlottesville	1,996,380	134,947	1.07%	1,553,256	135,951	0.93%
Community Housing/Greenstone	1,935,843	126,654	1.00%	1,935,843	160,898	1.10%
Woodard Properties	1,733,867	117,756	0.93%	1,733,867	148,610	1.02%
Pavilion UVA	1,354,450	81,765	0.65%	1,354,450	109,414	0.75%
Omni	1,218,290	76,411	0.61%	1,025,837	83,502	0.57%
Cannon Hearthwood	1,178,023	76,371	0.61%	1,178,023	96,667	0.66%
Allied Concrete	1,157,450	70,884	0.56%	1,157,450	93,660	0.64%
	71,522,133	\$ 3,872,068	30.72%	49,250,560	\$ 3,900,116	26.76%



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

**To the Board of Directors
Rivanna Water & Sewer Authority
Charlottesville, Virginia**

We have audited, in accordance with the auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia, the financial statements of the business-type activities of Rivanna Water & Sewer Authority as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise Rivanna Water & Sewer Authority's basic financial statements and have issued our report thereon dated October 26, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Rivanna Water & Sewer Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Rivanna Water & Sewer Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Rivanna Water & Sewer Authority's internal control.

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

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

Compliance and Other Matters

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

Purpose of this Report

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

Robinson, Farmer Cox Associates
Charlottesville, Virginia
October 26, 2020