Rivanna Solid Waste Authority

Comprehensive Annual Financial Report

for the Fiscal Years Ended June 30, 2019 and 2018

Serving the City of Charlottesville and Albemarle County, Virginia

<u>Front Cover Photograph</u>

Landfill Gas Flare

RIVANNA SOLID WASTE AUTHORITY

CHARLOTTESVILLE, VIRGINIA

COMPREHENSIVE ANNUAL FINANCIAL REPORT
YEARS ENDED JUNE 30, 2019 AND 2018

Prepared By:

Department of Finance and Administration

This page intentionally left blank

RIVANNA SOLID WASTE AUTHORITY

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

Table of Contents

This page intentionally left blank

BOARD MEMBERS

Michael A. Gaffney, Chair

Jeff Richardson, Vice-Chair

Dr. Tarron Richardson, Secretary/Treasurer

Dr. Liz Palmer

Kathleen Galvin

Lance Stewart

Paul Oberdorfer

EXECUTIVE DIRECTOR

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

DIRECTOR OF FINANCE/ADMINISTRATION

Lonzy E. Wood, III

GENERAL COUNSEL

McGuire Woods, LLP
Charlottesville, Virginia

This page intentionally left blank

RIVANNA SOLID WASTE AUTHORITY
695 Moores Creek Lane | Charlottesville, Virginia 22902-9016
434.977.2970
434.293.8858
www.rivanna.org

October 25, 2019

To the Board of Directors
Rivanna Solid Waste Authority
Charlottesville, Virginia

The Comprehensive Annual Financial Report (CAFR) of the Rivanna Solid Waste Authority (Authority) for the fiscal year end June 30, 2019 is submitted herewith. This report has been prepared in conformity with the reporting and accounting standards promulgated by the Government Accounting Standards Board, 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 auditor's 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 Solid Waste Authority is a regional non-profit public corporation chartered in 1990 under the Virginia Water and Waste Authorities Act (1950, as amended), that currently provides solid waste disposal and recycling services to the region comprised of the City of Charlottesville (City) and Albemarle County (County). The Authority does not provide collection services, which are managed by the City's Public Service Division and various private haulers who serve customers in both the County and the City. The Authority operates under the terms of a Service Agreement signed October 6, 1990 by the officers of the City Council, the County Board of Supervisors, and the Authority. By this agreement, the Authority is to be the sole provider of any landfills, transfer stations, or other solid waste disposal facilities, including recycling and solid waste energy generation, for all solid waste generated within Charlottesville and Albemarle County. The Authority accepted donation of the assets and liabilities and assumed operational responsibility for the Ivy Sanitary Landfill as of February 1, 1991.

The Authority has determined that it is not part of the reporting entity of either the City of Charlottesville or the County of Albemarle (see Note 1 of the notes to the financial statements). The Board appoints an Executive Director, who manages Authority operations under its direction. The Authority's operations mainly consist of the Ivy Material Utilization Center (IMUC), Municipal Solid Waste (MSW) transfer station, recycling activities and supporting administrative functions.

LOCAL ECONOMIC CONDITIONS

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. Although the majority of such growth occurs in County developments, in-filling in Charlottesville continues. Both Charlottesville and Albemarle County enjoy low unemployment rates, steady economic growth and high bond ratings.

A ten-year compilation analysis report dated September 2018 by the Charlottesville Regional Chamber of Commerce examining employment in the Greater Charlottesville Region concluded that combined private and public-sector employment grew by 10%, or 11,551 jobs, from 2007 to 2017, compared to a 4.3% increase in Virginia outside of the region. In 2017, 76% of jobs within the Region were located in the City of Charlottesville and Albemarle County, and the other 24% are reported in the Counties of Fluvanna, Greene, Louisa, Nelson, and Orange. The unemployment rate for the Charlottesville Metropolitan Service Area for calendar year 2018 was 2.7%.

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 vital contribution to the local economy.

LONG-TERM FINANCIAL PLANNING

The Authority is committed to the environmental remediation and post-closure care of the former Ivy Landfill. This challenge is immense in terms of management and economic resources. The next ten-year effort in this area for monitoring and remediation will cost an estimated $6 o $7 million.

A memorandum of understanding among the City, the County, the University of Virginia (UVA), and the Authority was signed on January 10, 2005 in which the City, County, and UVA agreed to share in funding the costs of environmental remediation at the former Ivy Landfill which includes implementing the Corrective Action Plan. Obviously, the remediation costs greatly outweigh the ability to generate revenues at Rivanna. This agreement clearly indicates that our associated local governments and UVA are committed to financially supporting this long-term effort to protect and correct adverse impacts on the environment.

MAJOR INITIATIVES

A Master Plan was completed for the Ivy Material Utilization Center (IMUC) site at the end of FY 2019. One of the items being advanced from this plan is the construction of a new public recycling center at the IMUC. The facility is projected to be opened by the end of FY 2020 and will offer similar recycling opportunities to the community as are offered at the McIntire Recycling Center. The budget for this project is $350,000 and is being funded by the County of Albemarle.

MAJOR INITIATIVES: (CONTINUED)

As noted in last year's report, development of a composting operation is still under discussion between the City of Charlottesville, County of Albemarle, and RSWA. A planning document providing financial pro-forma for several composting options has been developed by a consultant and is also being included in the discussions. A planning study of the Paper Sort Recycling facility is being developed. This study will examine the current facility, look for ways to optimize its use, and then make some forward-looking projections to see if the facility can accommodate potential future growth. If it is thought to be undersized, the study will also identify a preliminary design for a future facility as well as some possible locations for its placement. The County of Albemarle is also considering establishing some additional recycling/convenience centers elsewhere in the County. These new facilities will need to be designed and constructed, most likely by the Authority, and incorporated into our operations.

Staff implemented the first year of the strategic plan adopted more than a year ago. Major initiatives accomplished were implementation of a compensation plan, consolidation and updating of the Personnel Management Plan, increasing and cataloguing green initiatives, completing an employee portal on our website, and enhancing the usability of the Authority website.

Hours of operation were increased, and tipping fees were reduced at the IMUC to better serve the public, which were strategies identified for action within the strategic plan. This is a continuous program of assessing our plan and mission into the future with progress towards achieving our identified goals.

See the MD&A for more information.

ACCOUNTING AND BUDGETARY CONTROLS AND FINANCIAL POLICIES

The Authority's accounting records are maintained on the accrual basis of accounting. (See Note 1C of the notes to the financial statements). Internal controls are maintained by segregation of duties and physical and data security systems in all areas of record keeping, billing, cash receipts, disbursements and purchasing authority. These controls are reviewed regularly by staff and are evaluated as part of the annual financial audit (see the Compliance Section of this report).

The Authority is required by the Service Agreement to adopt an annual fiscal year budget for setting tipping fees as well as for fiscal guidance to staff. Budgets include direct costs and provision for equipment replacement as well as allocations of administrative, maintenance, site improvements funding, recycling, and other expenses. The Authority is in a position to offer only those services that can be supported either through fees charged or through local government contributions. Those contributions are governed by various annual agreements with the City and County. Projections of tonnages and expenses by waste category are used to calculate tipping fee requirements for each waste category (see Table 5). A proposed budget incorporating proposed tipping fees and local government contributions is prepared by the Director of Finance and the Executive Director and submitted to the Board of Directors. A public hearing is held on any proposed tipping fee changes with at least fourteen days advance public notice. All budget items lapse at the end of the fiscal year, except encumbrances and contractual commitments.

ACCOUNTING AND BUDGETARY CONTROLS AND FINANCIAL POLICIES (CONTINUED)

Budgetary compliance is monitored and reported to the Board by the Director of Finance and 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 and demographic forecasts. Variances from budget line items are examined at least monthly to assure a direct relation between costs and actual service levels, emergencies or other contingent conditions.

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Rivanna Solid Waste Authority for its Comprehensive Annual Financial Report for the year ended June 30, 2018. This was the twenty fourth consecutive year that this governmental unit has achieved this prestigious award. In order 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.

ANNUAL AUDIT

State law and the Service Agreement 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. The concurrent reports on compliance are included in the Compliance Section.

ACKNOWLEDGEMENTS

The help of staff 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,

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 Solid Waste Authority

Virginia

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

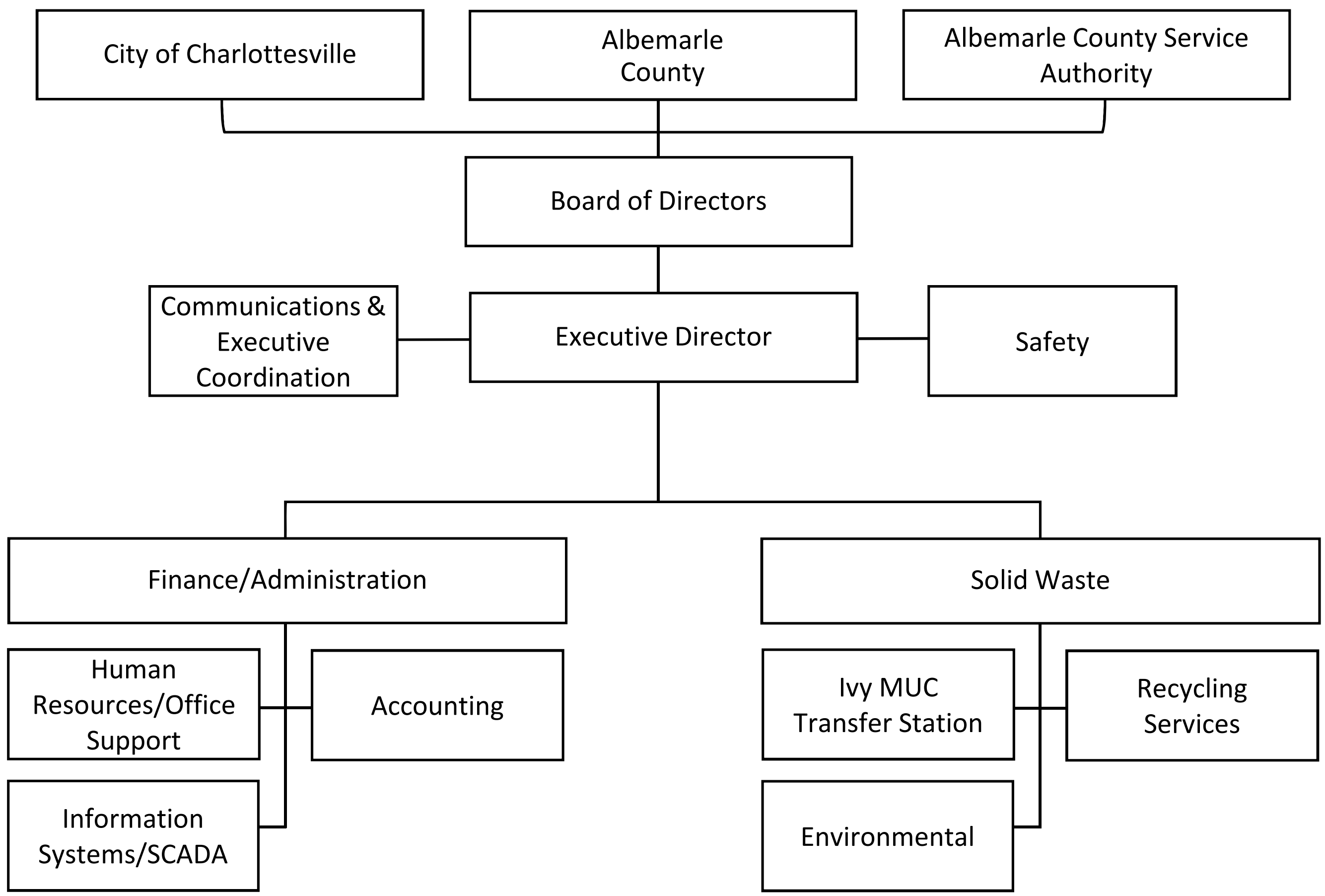
June 30, 2018

Christopher P. Morrill

Executive Director/CEO

Rivanna Solid Waste Authority

Organizational Chart



Independent Auditors' Report

To the Board of Directors
Rivanna Solid Waste Authority
Charlottesville, Virginia

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of Rivanna Solid Waste Authority, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our 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 Solid Waste Authority, as of June 30, 2019 and 2018, 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 13-21 and 72-78 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise Rivanna Solid Waste 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 25, 2019, on our consideration of Rivanna Solid Waste 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 Solid Waste 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 Solid Waste Authority 's internal control over financial reporting and compliance.

Robinson, Farmer, Cox Associates

Charlottesville, Virginia
October 25, 2019

To the Board of Directors
Rivanna Solid Waste Authority
Charlottesville, Virginia

As management of Rivanna Solid Waste 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, 2019. 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 7 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.

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 outflow 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 24 through 27 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 29 through 69 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.

Required supplementary information.
In FY 2018, the Authority adopted new accounting guidance, GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, and restated beginning balances pursuant to the requirements of GASB Statement No. 75. See Notes 11 and 16 for more information.

Financial Highlights

- The Authority's total net position increased by approximately $769,00 this year and by $1.63 million in the prior year, which indicates an improvement in its overall financial position.
- Total operating revenues increased 31% or $405,000 this year, due to increased tonnages of domestic waste received after a drop in the tipping fee per ton.
- Transfer Station operating expenses increased by $510,000 due to the cost of processing more waste.
- The Authority received $1.075 million in capital grant funds this year from the County of Albemarle to fund the construction of the new transfer station facility in Ivy and $1.77 million in the prior year.

Financial Analysis

The Authority's assets and deferred outflows of resources exceeded its liabilities and deferred inflows of resources (net position) at the close of the most recent fiscal year by $7.28 million. Total net position increased by $769,000 this year and by $1.6 million in FY 2018. Net position invested in capital assets increased by $869,000 this year and by $2.35 million in the prior year due to capital expenditures in building the new transfer station. The Authority uses these capital assets to provide services to its customers, so these assets are not available for future spending. Unrestricted net position has been negative for the past few years, because estimated landfill closure and post-closure costs for many years to come have been recorded as liabilities. However, these costs are funded on a pay-as-you-go basis through financial assurance provided by local government contributions.

	Net Position		
	2019	2018	2017
Current and other assets	$ 3,656,408	$ 3,991,850	$ 4,716,992
Capital assets	10,089,921	9,285,711	6,840,559
Total assets	$ 13,746,329	$ 13,277,561	$ 11,557,551
Deferred outflows of resources	$ 78,445	$ 36,862	$ 90,844
Noncurrent liabilities	$ 5,517,271	$ 5,633,047	$ 5,834,808
Current liabilities	1,000,152	1,119,761	919,337
Total liabilities	$ 6,517,423	$ 6,752,808	$ 6,754,145
Deferred inflows of resources	$ 22,635	$ 46,005	$ 9,278
Net position:			
Investment in capital assets	$ 10,062,470	$ 9,192,978	$ 6,840,559
Unrestricted	(2,777,754)	(2,677,368)	(1,955,587)
Total net position	$ 7,284,716	$ 6,515,610	$ 4,884,972

Total operating revenues grew significantly for FY 2019 compared to the previous fiscal year with a 31% increase. Operating revenues were relatively flat from FY 2017 to FY 2018. Tipping fee revenues were the reason for this growth in revenues. Several changes that are discussed in the Operations review caused these increases. Clean fill and vegetative materials saw a $65,000 increase in tipping fees for FY 2019 after decreasing $54,500 between FY 2018 and FY 2017. Fluctuations of these materials are affected by construction activity in the region. Recycling revenues had another decrease in revenues for FY 2019 with a 22% decrease or $43,000. This followed a decrease of $31,700 or 14% between FY 2018 and FY 2017. Recycling tonnages received were very strong with an 18% increase; however, market prices have declined significantly.

Financial Analysis: (Continued)

Contributions received from the City of Charlottesville, the County of Albemarle, and the University of Virginia to fund remediation costs remained consistent with last year with only a $13,000 decrease for FY 2019. That funding decreased 31% or $180,000 for FY 2018 compared to the previous year. The contributions were based on changes in estimated remediation costs budgeted for each fiscal year reduced by the planned use of $668,000 of reserves over the two years. The County and City also contributed $1,078,500 this year as budgeted to help fund operating expenses, which was $331,500 more than the amount contributed in the prior year.

Total environmental expenses increased by $190,800 this year after increasing $160,500 in the prior year. Since the initial estimate of liability and related expense was recorded several years ago, the completion of certain landfill closure activities and changing estimates of future remediation costs associated with the permitted post-closure care can result in fluctuations in the liabilities and expenses. See the Review of Operations section for more information.

	Changes in Net Position		
	2019	2018	2017
Revenues:			
Operating revenues:			
Tipping fees	$ 1,321,174	$ 878,841	$ 876,382
Recycling revenues	152,871	195,912	227,614
Other revenues	238,541	233,133	214,771
Nonoperating revenues:			
Local government contributions - remediation support	383,742	396,787	576,714
Local government contributions - operations support	1,078,539	747,161	368,856
Grants	29,597	27,118	27,811
Interest earned	69,162	50,437	31,333
Other income	7,308	8,034	5,220
Gain on disposal of assets	-	5,846	-
Capital grants	1,075,125	1,771,792	210,083
Total revenues	$ 4,356,059	$ 4,315,061	$ 2,538,784
Expenses:			
Operating expenses:			
Administration	$ 687,571	$ 496,812	$ 388,524
Transfer station	1,419,777	909,581	808,104
Ivy Material Utilization Center	359,715	298,782	259,669
Ivy environmental	524,934	425,466	264,995
Recycling programs	431,398	455,216	312,052
Depreciation	120,830	58,566	51,789
Nonoperating expenses:			
Loss on disposal of assets	42,728	-	-
Total expenses	$ 3,586,953	$ 2,644,423	$ 2,085,133
Change in net position	$ 769,106	$ 1,670,638	$ 453,651
Net position, beginning of year, as restated	6,515,610	4,844,972	4,431,321
Net position, end of year	$ 7,284,716	$ 6,515,610	$ 4,884,972

Capital Asset and Debt Administration

Capital Assets - The Authority's investment in capital assets net of accumulated depreciation increased $804,000 for FY 2019 due to capital project construction costs. $553,000 was spent to complete the construction of the new transfer station in Ivy, and $279,000 was spent on a new gas flare system; both of which were capitalized ($3.4 million) as completed and moved from construction in progress to building and fixtures for noncurrent assets. Only $443,000 in equipment was capitalized for FY 2019. Depreciation of $120,800 and $58,600 was recorded in fiscal year 2019 and 2018 respectively. There was a $51,400 loss for FY 2019 on the abandonment of the conveyor equipment with the decommissioning of the old transfer station. Below is a comparison of the items that make up net capital assets at the end of the past three fiscal years.

	2019	2018	2017
Land, land improvements and landfill site	$ 5,943,439	$ 5,943,439	$ 5,943,439
Construction in progress	91,121	2,743,868	298,215
Buildings and fixtures	3,247,679	95,674	110,675
Vehicles and equipment	807,682	502,730	488,230
Total capital assets, net	$ 10,089,921	$ 9,285,711	$ 6,840,559

Additional information about the Authority's capital assets may be found in Notes 3 and 4 of the notes to the financial statements.

Long-Term Debt - The Authority has a $5.8 million obligation to close the transfer station and landfill site and to perform post-closure monitoring. This liability decreased slightly this year by $126,000 or 2%. More detailed information on the Authority's long-term liabilities is presented in Notes 7 and 9 of the notes to the financial statements.

To meet the new reporting standards set forth by the Governmental Accounting Standards Board (GASB), the Authority recognized for the first time in FY 2015 the net pension obligation of $242,000 as a long-term liability. This requirement is a result of GASB Statement No. 68 Accounting and Reporting for Pensions. For FY 2019, that liability is $154,800 which is an increase of $58,000 compared to FY 2018's liability of $96,800. This liability was $224,500 for FY 2017 which shows that this estimate can fluctuate each year in any direction. This liability represents the Authority's share of the Virginia Retirement System (VRS)'s actuarially determined total pension liability less plan assets or net position to pay for that liability. The actuary also determines the contribution rates needed in the future that the Authority pays directly to VRS to gradually fund this obligation. The contribution rate for FY 2019 was 9.32% of covered employee compensation and the rate was 7.92% in the prior two years. The contributions were paid into VRS along with the 5% employee contributions to meet this future obligation. More detailed information regarding the Authority's pension plan and the net pension liability is presented in Note 6 of the notes to the financial statements.

Review of Operations

General: There were several significant changes this year that affected the financial results noted in the analysis section of this report. The new Ivy transfer station was completed and opened on September 25, 2018. The new transfer station replaced the open-air transfer station that was required to be decommissioned by the Va. Department of Environmental Quality (DEQ).

Review of Operations: (Continued)

Demolition of Old Transfer Station

This project was prompted several years ago because the existing transfer station, which was built in the late 1990s, did not meet modern permitting requirements as determined by DEQ. The new transfer station has a capacity to process 300 tons of solid waste per day and is designed to more efficiently handle traffic flow to help eliminate customer waiting times for offloading their waste. The existing transfer station was demolished, and the remaining undepreciated values were written-off for a small loss of $51,400.

Municipal Solid Waste Transfer Station: The MSW transfer station in Ivy accepts MSW and small loads of construction debris from residential and commercial haulers. The waste is loaded into top loading trailers, and a contractor hauls and disposes of the waste at a contracted facility in Amelia County. Tonnages nearly doubled this year, and the related tipping fees generated by this operation were $954,000 this year, which was a 64% increase from the prior year. See the chart below comparing the total tons received for the last 4 years.

Municipal Solid Waste
Annual Tonnages

FY 2016	7,761.04
FY 2017	8,340.56
FY 2018	8,423.12
FY 2019	16,404.44

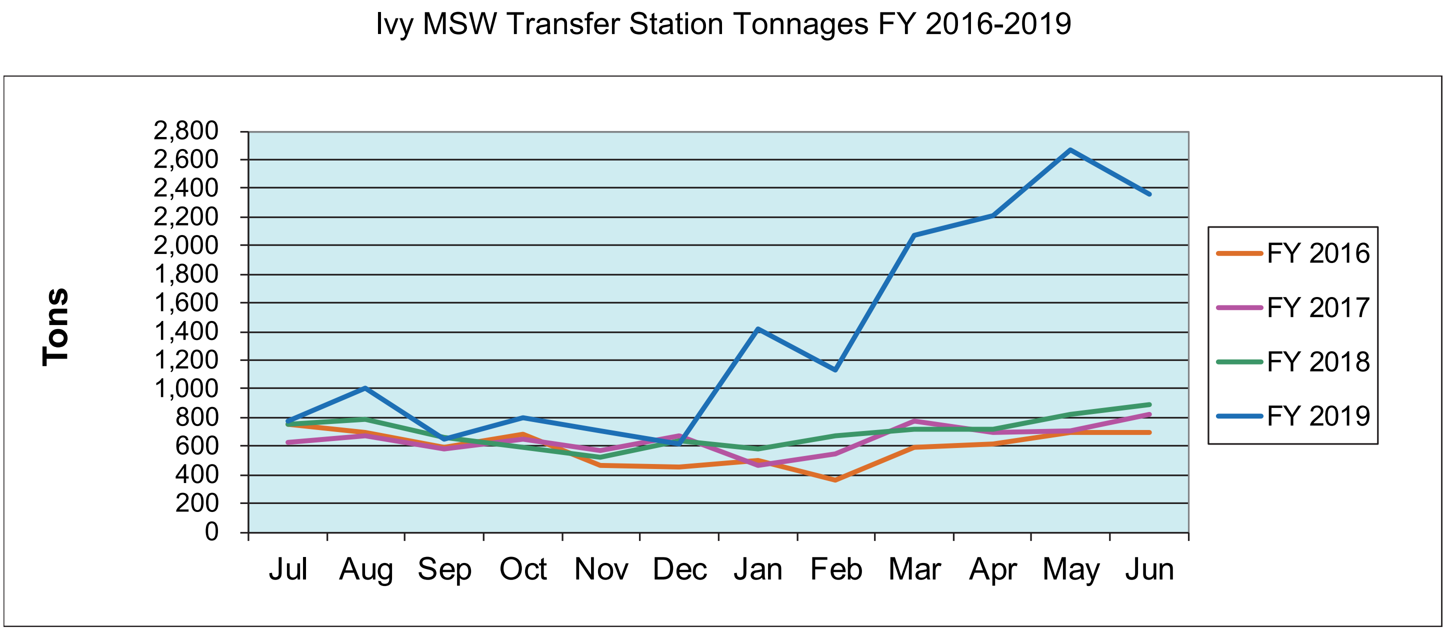
The tipping fee for MSW & construction waste was another major change in FY 2019. The Board approved the reduction of the domestic waste tipping fee from $66 per ton to $52 per ton effective January 1, 2019. This was at the request and consent of the County of Albemarle Board of Supervisors. The purpose of this was to generate more waste tonnages to take advantage of economies of scale. The differential (or margin) of variable costs per ton disposal at $39 per ton and the charge per ton of $52 at higher tonnages volume would help reduce the overall costs when factoring in relative fixed costs to operate the facility.

New Transfer Station in Operation

Hours of operation at the Ivy transfer station were reduced in FY 2014 by closing on all Mondays to help reduce costs during a time of economic downturn and reducing the need for local funding from the County. For FY 2019, the Board recognized that there was a need to better serve the public and being closed on Monday's was not consistent with that goal. At the February 2019 Board meeting, with the consent of Albemarle County, the Board approved opening on Mondays as a pilot to test if this does indeed better serve the public. After preparing for the additional hours by using contracted staffing resources, the Authority began opening Mondays on March 18. This pilot period was designated to run through September of the next fiscal year when the Board will consider ending the pilot period or making a decision to permanently operating on Mondays.

Both of the decisions had a positive effect on the volume of tonnage received. The opening of the new transfer station did not generate significant additional tonnages. As you can see from the chart below, the monthly tonnages received dramatically increased in January and March primarily due to these two decisions and explains the significant increase in tipping fees revenues previously mentioned.

Review of Operations: (Continued)

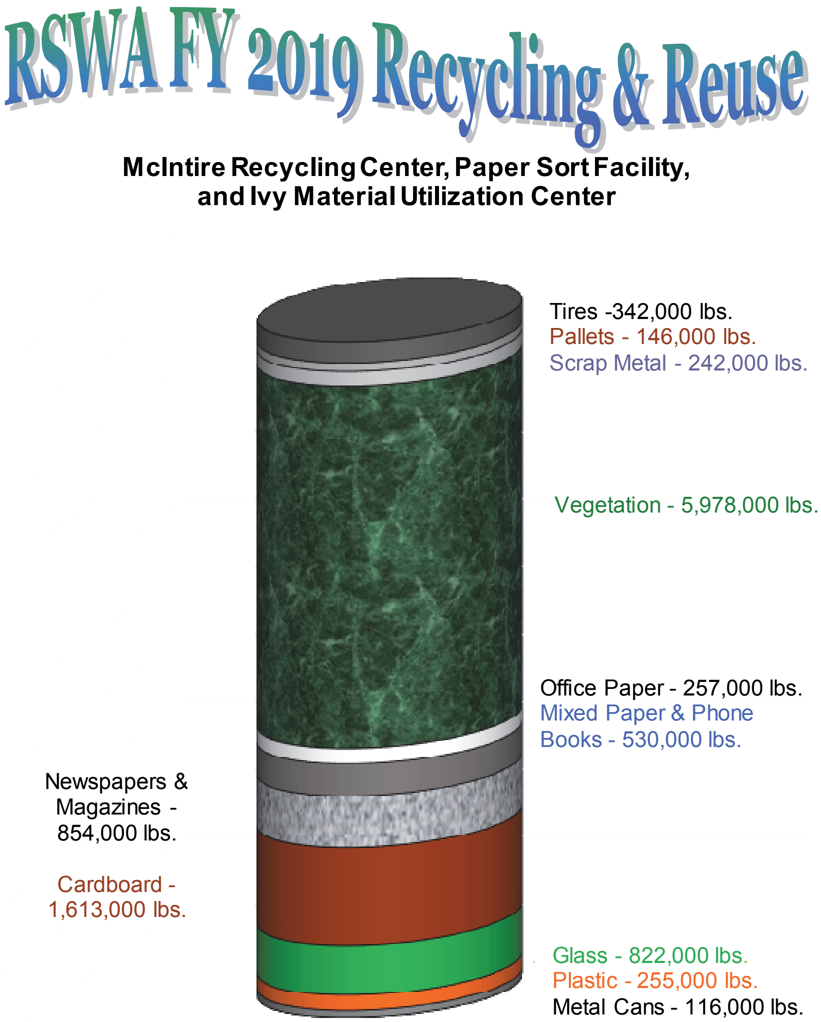


Ivy Material Utilization Center (IMUC): Waste items are received at the IMUC, where most of the items are processed for sale or reuse, such as metals, tires, grindable vegetative material, and pallets. Clean fill, which is inert material, is accepted as well. Tipping fees from these items generated $288,000 in gross revenues for the Authority this year. This is a 53% increase over last year driven by much higher volumes of clean fill and vegetative materials being received. There were no changes to the operation for the current year. The resale of items such as scrap metal and mulch resulted in revenues of $105,000, and hauling fees decreased $12,000 to $39,800 this year. The IMUC continues to have the semiannual household hazardous waste (HHW) events for collection of paint, batteries, and other HHW, which is a very popular program. The public drop-off recycling center and a "blue bag" drop-off center for Albemarle County haulers that collect waste paper remained at the center this year.

The Authority continued to offer the organic compost collection and receiving program at IMUC. This program is mostly a working partnership with UVa Facilities Management to receive compostable food waste materials from UVa sources and contract with a private vendor to compost the materials for end users off site. The Authority was also able to provide bins to the general public at no charge to collect compostable materials. This program generated $78,600 in revenues and processed approximately 443 tons of food waste.

Review of Operations: (Continued)

Recycling: The Authority assumed operational responsibility as of February 1992 for the McIntire Road Recycling Center (a drop-off facility located in the City). This center collects many of the traditional items (paper, glass, plastic, and cans) for recycling and other non-traditional items, like used books, phone books, and Christmas trees.



11,155,000 Pounds of Waste Diverted for Reuse or Recycling

The Paper Sort Facility functions as a transfer station where the Authority receives newspaper, magazines, cardboard, and file stock (fiber products), and plastic from the McIntire recycling center, other smaller collection sites in the County, and private haulers. The baler is used to ready the cardboard, boxboard, and plastic for transportation. Contracts are in place to sell and transport these products to mills and processors, and many of our contractors consider our recycled material to be high quality with little contamination. Recycling tonnages received for FY 2019 increased 18%. However, these tonnages generated less in revenues compared to FY 2018. Recycling operations generated $152,900 in revenues for FY 2019, which was a decrease of $43,000 from the previous year due to lower market prices. Cardboard, one of our largest revenue producers, had a market price drop of 43% from June 2018 to June 2019. Newspaper, another high-end revenue producer, had a 28% market price decline. This graphic shows the amounts of all materials that were diverted from the waste stream by both the recycling operations and the operations at Ivy in FY 2019. For more information, see Table 4 in the Statistical Section.

Administration: By mutual agreement of the respective Boards of Directors, the Authority shares administrative staff and office space with the Rivanna Water and Sewer Authority and pays an allocated share of joint expenses. Administrative procedures were implemented to ensure proper segregation of funds, purchasing activity, personnel and similar matters. The Solid Waste Authority paid the Water Authority $460,000 for this joint administrative service this year and $409,000 in the previous year, as budgeted to fund projected administrative expenses.

Review of Operations: (Continued)

Environmental Remediation: The Authority has long-term obligations for the remediation of the Ivy Landfill. In the late 1990s, it was confirmed that groundwater contamination had occurred at Ivy, contained within the boundary of the landfill property but beyond the footprint of the landfill cells. A remediation program was developed that began with a “pump and treat” system on the west side and replaced in 2006 by a broader site-wide enhanced bioremediation program. Enhanced Bioremediation included the injection of carefully selected substrate material into the groundwater to enhance the natural chemical reduction of the contamination to clean groundwater. In July 2013, the injection of substrate was suspended to allow the long-term effects of the groundwater remediation efforts to be evaluated. Groundwater monitoring continues to show that groundwater contamination remains on-site, stable, and that off-site receptors are protected from impacts.

This is part of the Authority’s continued proactive strategy to meet the ongoing obligations and regulatory requirements at the Ivy Landfill. Through an extensive program of groundwater monitoring and remediation activities, historical contamination has been constrained onsite and continues to be closely monitored to observe the efficacy of the program and protection of human and ecological health.

Air quality continues to be managed by operation of a site-wide, active gas collection system and continued system evaluation. In August 2018, a new landfill gas flare was installed to replace the existing flare. The new flare is a smaller model flare that is appropriately sized to manage the much-reduced quantity of landfill gas that is being produced from the closed waste disposal cells.

A protocol has been developed to evaluate the future need to recap sections of the landfill that have witnessed significant settlement caused by the decay of buried wastes. This recapping will be necessary to maintain the effectiveness of the landfill caps and limit the infiltration of precipitation into the waste. These recapping efforts will appear in future budget estimates and are expected to occur at a frequency of every 5 to 10 years.

Due to recent changes in Virginia’s dam safety requirements, the dam at the landfill, historically used as a source for irrigation water, is now required to be inspected and registered with the Virginia Department of Conservation and Recreation. A consultant has been procured that will aid the Authority in evaluating whether it is in our best interest to have the dam removed, modified, or fully brought into permitted compliance.

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.

This page intentionally left blank

Basic Financial Statements

Statement of Net Position
At June 30, 2019 and 2018

	At June 30,	
	2019	**2018**
ASSETS		
Current assets:		
Cash and cash equivalents (Notes 1 & 2)	$ 3,305,337	$ 3,626,017
Accounts receivable	227,514	189,294
Total current assets	$ 3,532,851	$ 3,815,311
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents (Notes 1 & 2)	$ 123,557	$ 176,539
Total restricted assets	$ 123,557	$ 176,539
Capital assets (Note 3):		
Land and improvements	$ 5,943,439	$ 5,943,439
Buildings and fixtures	3,844,316	633,119
Landfill site	5,665,500	5,665,500
Ivy landfill equipment	1,183,825	1,436,865
Vehicles	794,043	731,319
Office equipment	16,736	16,736
Recycling facilities equipment	389,984	353,962
Accumulated depreciation (Note 3)	(7,839,043)	(8,239,097)
Subtotal	$ 9,998,800	$ 6,541,843
Construction in progress (Note 4)	91,121	2,743,868
Total net capital assets	$ 10,089,921	$ 9,285,711
Total noncurrent assets	$ 10,213,478	$ 9,462,250
Total assets	$ 13,746,329	$ 13,277,561
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows - pension (Note 6)	$ 73,017	$ 34,529
Deferred outflows - OPEB - group life insurance (Note 11)	5,428	2,333
Total deferred outflows of resources	$ 78,445	$ 36,862

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

Statement of Net Position (continued)
At June 30, 2019 and 2018

	At June 30,	
	2019	**2018**
LIABILITIES		
Current liabilities:		
Accounts payable and accrued expenses	$ 421,439	$ 482,895
Retainage payable	27,451	92,733
Accrued landfill corrective action and post-closure costs	483,443	476,650
Compensated absences - current portion (Note 9)	30,336	30,000
Other long-term obligation (Note 13)	37,483	37,483
Total current liabilities	$ 1,000,152	$ 1,119,761
Noncurrent liabilities:		
Payable from restricted assets:		
Accrued transfer station closure costs (Note 7)	$ 123,557	$ 176,539
Accrued corrective action costs (Note 7)	2,886,799	2,858,581
Accrued post-closure monitoring costs (Note 7)	2,277,622	2,385,444
Compensated absences (net of current portion) (Note 9)	-	3,691
Other long-term obligation (Note 13)	38,488	75,971
Net pension liability (Note 6)	154,805	96,821
Net OPEB liability (Note 11)	36,000	36,000
Total noncurrent liabilities	$ 5,517,271	$ 5,633,047
Total liabilities	$ 6,517,423	$ 6,752,808
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows - pension (Note 6)	$ 19,635	$ 42,005
Deferred inflows - OPEB - group life insurance (Note 11)	3,000	4,000
Total deferred inflows of resources	$ 22,635	$ 46,005
NET POSITION		
Net position:		
Investment in capital assets	$ 10,062,470	$ 9,192,978
Unrestricted	(2,777,754)	(2,677,368)
Total net position	$ 7,284,716	$ 6,515,610

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

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

	Year Ended June 30, 2019	Year Ended June 30, 2018
Operating revenues:		
Tipping fees	$ 1,321,174	$ 878,841
Recycling revenues	152,871	195,912
Other revenues	238,541	233,133
Total operating revenues	$ 1,712,586	$ 1,307,886
Operating expenses:		
Administration	$ 687,571	$ 496,812
Transfer station	1,419,777	909,581
Ivy Material Utilization Center	359,715	298,782
Ivy environmental	524,934	425,466
Recycling programs	431,398	455,216
Depreciation	120,830	58,566
Total operating expenses	$ 3,544,225	$ 2,644,423
Operating income (loss)	$ (1,831,639)	$ (1,336,537)
Nonoperating revenues (expenses):		
Interest earned	$ 69,162	$ 50,437
Local government contributions - remediation support	383,742	396,787
Local government contributions - operations support	1,078,539	747,161
Other income	7,308	8,034
Grants	29,597	27,118
Gain (loss) on disposal of assets	(42,728)	5,846
Total nonoperating revenues (expenses)	$ 1,525,620	$ 1,235,383
Income before capital grants	$ (306,019)	$ (101,154)
Capital grants	1,075,125	1,771,792
Change in net position	$ 769,106	$ 1,670,638
Net position, beginning of year, as restated	6,515,610	4,844,972
Net position, end of year	$ 7,284,716	$ 6,515,610

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

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

	Year Ended June 30, 2019	Year Ended June 30, 2018
Cash flows from operating activities:		
Receipts from customers and users	$ 1,681,674	$ 1,235,870
Payments to suppliers	(2,227,504)	(2,107,805)
Payments to and on behalf of employees	(1,145,006)	(802,354)
Net cash provided by (used for) operating activities	$ (1,690,836)	$ (1,674,289)
Cash flows from noncapital financing activities:		
Contributions from local governments	$ 1,462,281	$ 1,143,948
Grant income	29,597	27,118
Net cash provided by (used for) noncapital financing activities	$ 1,491,878	$ 1,171,066
Cash flows from capital and related financing activities:		
Additions to capital assets	$ (1,330,685)	$ (2,125,544)
Proceeds from the disposal of capital assets	11,694	6,346
Capital grants	1,075,125	1,771,792
Net cash provided by (used for) capital and related financing activities	$ (243,866)	$ (347,406)
Cash flows from investing activities:		
Interest received	$ 69,162	$ 50,437
Net cash provided by (used for) investing activities	$ 69,162	$ 50,437
Increase (decrease) in cash and cash equivalents	$ (373,662)	$ (800,192)
Cash and cash equivalents at beginning of year (including $176,539 and $173,417, respectively reported in restricted accounts)	3,802,556	4,602,748
Cash and cash equivalents at end of year (including $123,557 and $176,539 respectively reported in restricted accounts)	$ 3,428,894	$ 3,802,556
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income (loss)	$ (1,831,639)	$ (1,336,537)
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation	120,830	58,566
Other nonoperating income	7,308	8,034
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable and prepaid items	(38,220)	(75,050)
Increase (decrease) in accounts payable and accrued expenses	224,485	(179,575)
Increase (decrease) in net OPEB liability	-	(5,000)
Increase (decrease) in other long-term obligations	(37,483)	(43,233)
Increase (decrease) in compensated absences	(3,355)	4,029
Increase (decrease) in net pension liability	57,984	(127,695)
(Increase) decrease in deferred outflows of resources - pension	(38,488)	56,315
Increase (decrease) in deferred inflows of resources - pension	(22,370)	32,727
(Increase) decrease in deferred outflows of resources - OPEB - GLI	(3,095)	(1,333)
Increase (decrease) in deferred inflows of resources - OPEB - GLI	(1,000)	4,000
Increase (decrease) in accrued landfill and transfer station obligations	(125,793)	(69,537)
Net cash provided by (used for) operating activities	$ (1,690,836)	$ (1,674,289)
Noncash investing, capital and financing activities:		
(Increase) decrease in retainage payable for capital assets	$ 65,282	$ (92,733)

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

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The Rivanna Solid Waste Authority is a jointly governed organization formed by the City of Charlottesville and the County of Albemarle pursuant to the Virginia Water and Waste Authorities Act (Code of Virginia, 1950 as amended). The Authority was formed to develop regional garbage and refuse disposal, as such terms are defined in Section 15.2-5101 of the Act, including development of systems and facilities for recycling, waste reduction and disposal alternatives with the ultimate goal of acquiring, financing, constructing, and/or operating and maintaining regional solid waste disposal areas, systems and facilities, all pursuant to the provisions of the Act. The Authority began operations on February 1, 1991.

A. Financial Reporting Entity

The Rivanna Solid Waste Authority provides the services mentioned above to the citizens of its participating governments, City of Charlottesville and County of Albemarle. However, these participating governments do not have a financial interest in or responsibility to the Authority.

The Authority's governing body is comprised of three members appointed by the City, three members appointed by the County, 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 Solid Waste Authority has been determined to be a jointly governed organization of the City of Charlottesville and County of Albemarle. The Authority is not a component unit of either of the participating governments.

For purposes of reporting entity disclosure, it should be noted that a separate entity, the Rivanna Water & Sewer Authority, provides wholesale water and sewer services to the City of Charlottesville and the Albemarle County Service Authority. Although certain administrative employees provide services to both Authorities, each Authority is operationally and legally independent.

B. Basic Financial Statements

As a requirement of GASB Statement 34, the financial statements include a Management's Discussion and Analysis (MD&A) section providing an analysis of the Authority's overall financial position and results of operations.

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

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

B. Basic Financial Statements (Continued)

- Enterprise fund financial statements
  - Statement of Net Position
  - Statement of Revenues, Expenses, and Changes in Net Position
  - Statement of Cash Flows
  - Notes to Financial Statements
- 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 Program
  - Schedule of Employer Contributions-Group Life Insurance Program
  - Notes to Required Supplementary Information-Group Life Insurance Program

C. Basis of Accounting

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

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for sales and services. 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.

D. Cash and Cash Equivalents

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

E. Restricted Assets

Certain cash accounts held by the Authority are set aside for landfill and transfer station closure and landfill post-closure monitoring costs. The accounts are properly classified as restricted assets on the balance sheet. Regulations require the Authority to maintain the restricted accounts for the landfill and transfer station closure and landfill post-closure monitoring costs.

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

F. 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 $5,000 (amount not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

The City of Charlottesville and the County of Albemarle contributed certain landfill assets to the Authority. These assets are all reported at their acquisition value on the date donated. Landfill vehicles and equipment are valued based upon estimates by Authority personnel. Landfill cells and the landfill site were valued by the Authority's consulting engineer. The engineer also estimated the accrued landfill closure and related expenses. The remaining land area at the landfill site is reported at its value as a landfill site. If the Authority determines that the Ivy site will no longer be used for future waste disposal, the value will be adjusted to its fair value.

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 included as part of the capitalized value of the assets constructed. No interest was capitalized during the current or previous fiscal year.

Depreciation of landfill cell development and site costs is recorded based on remaining units of capacity.

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

Assets	Years
Buildings & Fixtures	15 to 40
Vehicles	5 to 15
Office equipment	5
Landfill equipment	5 to 15

Total depreciation for the years ended June 30, 2019 and 2018 was $120,830 and $58,566, respectively.

G. Other Significant Accounting Policies

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

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

H. Investments

Money market investments, participating interest-earning investment contracts (repurchase agreements) that have a remaining maturity at time of purchase of one year or less, nonparticipating interest-earning investment contracts (nonnegotiable certificates of deposit (CDs) and external investment pools) are measured at amortized cost. All other investments are reported at fair value.

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

Net position is the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, reduced by accumulated depreciation and by any outstanding debt, and deferred outflows of resources and increased by deferred inflows of resources related to the acquisition, construction or improvement of those assets. Restricted net position represents restricted assets reduced by liabilities and deferred inflows of resources related to those assets.

L. Reclassification

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

M. Closure and Post-Closure Obligations

The Authority records all estimated closure costs for existing cells as a liability. Upon final closure of the landfill site, the Authority is then responsible, under current Federal regulations, for maintaining the closed site for the following thirty years.

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

N. Deferred Outflows and Inflows 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 two types of items that qualify for reporting in this category. One type 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. Another type of deferred outflow is related to the Group Life Insurance Program (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 two 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.

For more detailed information regarding deferred outflows and inflows of resources related to the pension plan, refer to Note 6. For more information on those related to the GLI OPEB Plan, refer to Note 11.

O. 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.

P. 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.

NOTE 1–SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (CONTINUED)

Q. Other Postemployment Benefits (OPEB)

Group Life Insurance

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

NOTE 2–DEPOSITS AND INVESTMENTS:

Deposits

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

Investments

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

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

NOTE 2–DEPOSITS AND INVESTMENTS: (CONTINUED)

Credit Risk of Debt Securities

The Authority's rated debt investments as of June 30, 2019 and 2018 were rated by Standard & Poor's and the ratings are presented below using the Standard & Poor's rating scale.

Authority's Rated Debt Investments' Values - 2019

Rated Debt Investments	Fair Quality Ratings AAAm
Local Government Investment Pool	$ 2,091,251
Total	$ 2,091,251

Authority's Rated Debt Investments' Values - 2018

Rated Debt Investments	Fair Quality Ratings AAAm
Local Government Investment Pool	$ 2,597,353
Total	$ 2,597,353

Interest Rate Risk

Investment Maturities (in years) - 2019

Investment Type	Fair Value	Less Than 1 Year
Local Government Investment Pool	$ 2,091,251	$ 2,091,251
Total	$ 2,091,251	$ 2,091,251

Investment Maturities (in years) - 2018

Investment Type	Fair Value	Less Than 1 Year
Local Government Investment Pool	$ 2,597,353	$ 2,597,353
Total	$ 2,597,353	$ 2,597,353

NOTE 2–DEPOSITS AND INVESTMENTS: (CONTINUED)

External Investment Pool

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

NOTE 3–CAPITAL ASSETS:

A summary of changes in capital assets for the year ended June 30, 2019 follows:

	Balance July 1, 2018	Increases	Decreases	Balance June 30, 2019
Capital assets not being depreciated:				
Land and improvements	$ 5,943,439	$ -	$ -	$ 5,943,439
Construction in progress	2,743,868	832,276	3,485,023	91,121
Total capital assets not being depreciated	$ 8,687,307	$ 832,276	$ 3,485,023	$ 6,034,560
Other Capital Assets:				
Buildings & fixtures	$ 633,119	$ 3,211,197	$ -	$ 3,844,316
Accumulated depreciation	(537,445)	(59,192)		(596,637)
Landfill site	5,665,500	-	-	5,665,500
Accumulated depreciation	(5,665,500)	-	-	(5,665,500)
Ivy Landfill equipment	1,436,865	319,266	572,306	1,183,825
Accumulated depreciation	(1,250,859)	(23,103)	(495,884)	(778,078)
Vehicles	731,319	87,724	25,000	794,043
Accumulated depreciation	(495,534)	(28,559)	(25,000)	(499,093)
Office equipment	16,736	-	-	16,736
Accumulated depreciation	(16,736)	-	-	(16,736)
Recycling facilities equipment	353,962	36,022	-	389,984
Accumulated depreciation	(273,023)	(9,976)	-	(282,999)
Other capital assets, net	$ 598,404	$ 3,533,379	$ 76,422	$ 4,055,361
Capital assets, net	$ 9,285,711	$ 4,365,655	$ 3,561,445	$ 10,089,921

NOTE 3–CAPITAL ASSETS: (CONTINUED)

A summary of changes in capital assets for the year ended June 30, 2018 follows:

	Balance July 1, 2017	Increases	Decreases	Balance June 30, 2018
Capital assets not being depreciated:				
Land and improvements	$ 5,943,439	$ -	$ -	$ 5,943,439
Construction in progress	298,215	2,445,653	-	2,743,868
Total capital assets not being depreciated	$ 6,241,654	$ 2,445,653	$ -	$ 8,687,307
Other Capital Assets:				
Buildings & fixtures	$ 633,119	$ -	$ -	$ 633,119
Accumulated depreciation	(522,444)	(15,001)		(537,445)
Landfill site	5,665,500	-	-	5,665,500
Accumulated depreciation	(5,665,500)	-	-	(5,665,500)
Ivy Landfill equipment	1,478,235	-	41,370	1,436,865
Accumulated depreciation	(1,276,394)	(15,335)	(40,870)	(1,250,859)
Vehicles	702,729	28,590	-	731,319
Accumulated depreciation	(474,929)	(20,605)	-	(495,534)
Office equipment	16,736	-	-	16,736
Accumulated depreciation	(16,736)	-	-	(16,736)
Recycling facilities equipment	323,987	29,975	-	353,962
Accumulated depreciation	(265,398)	(7,625)	-	(273,023)
Other capital assets, net	$ 598,905	$ (1)	$ 500	$ 598,404
Capital assets, net	$ 6,840,559	$ 2,445,652	$ 500	$ 9,285,711

NOTE 4–CONSTRUCTION IN PROGRESS:

At June 30, 2019 and 2018 the Authority had $91,121 and $2,743,868 construction in progress, respectively.

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

	Balance July 1, 2018	Cost of Construction	Expense/ Transfer to Capital Assets	Balance June 30, 2019
New Ivy Transfer Station	$ 2,449,479	$ 553,324	$ 3,002,803	$ -
Landfill Cap Settlement Repairs	63,670	-	-	63,670
Flare Installation	137,986	278,952	416,938	-
Retainage on Construction in Progress	92,733		65,282	27,451
Total	$ 2,743,868	$ 832,276	$ 3,485,023	$ 91,121

Details of construction in progress for the year ended June 30, 2018 are as follows:

	Balance July 1, 2017	Cost of Construction	Expense/ Transfer to Capital Assets	Balance June 30, 2018
New Ivy Transfer Station	$ 238,576	$ 2,210,903	$ -	$ 2,449,479
Landfill Cap Settlement Repairs	47,492	16,178	-	63,670
Flare Installation	12,147	125,839	-	137,986
Retainage on Construction in Progress	-	92,733	-	92,733
Total	$ 298,215	$ 2,445,653	$ -	$ 2,743,868

NOTE 5–COMPENSATED ABSENCES:

Authority regular 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 amounts are accrued when incurred. At June 30, 2019 and 2018, the liability for accrued vacation leave was $30,336 and $33,691, respectively.

NOTE 6–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 creditable service or age 50 with at least 30 years of creditable service. Non-hazardous duty employees may retire with a reduced benefit as early as age 55 with at least 5 years of creditable service or age 50 with at least 10 years of creditable service. Hazardous duty employees (law enforcement officers, firefighters, and sheriffs) are eligible for an unreduced benefit beginning at age 60 with at least 5 years of creditable service or age 50 with at least 25 years of creditable service. Hazardous duty employees may retire with a reduced benefit as early as age 50 with at least 5 years of creditable service.

b. Employees hired on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013 are covered under Plan 2, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of creditable service or when the sum of their age and service equals 90. Non-hazardous duty employees may retire with a reduced benefit as early as age 60 with at least 5 years of creditable service. Hazardous duty employees are eligible for an unreduced benefit beginning at age 60 with at least 5 years of creditable service or age 50 with at least 25 years of creditable service. Hazardous duty employees may retire with a reduced benefit as early as age 50 with at least 5 years of creditable service.

c. Non-hazardous duty employees hired on or after January 1, 2014 are covered by the Hybrid Plan combining the features of a defined benefit plan and a defined contribution plan. Plan 1 and Plan 2 members also had the option of opting into this plan during the election window held January 1 – April 30, 2014 with an effective date of July 1, 2014. Employees covered by this plan are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of creditable service, or when the sum of their age and service equal 90. Employees may retire with a reduced benefit as early as age 60 with at least 5 years of creditable service. For the defined contribution component, members are eligible to receive distributions upon leaving employment, subject to restrictions.

NOTE 6–PENSION PLAN: (CONTINUED)

Average Final Compensation and Service Retirement Multiplier

The VRS defined benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the employee's average final compensation multiplied by the employee's total creditable service. Under Plan 1, average final compensation is the average of the employee's 36 consecutive months of highest compensation and the multiplier is 1.7% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents, and 1.7% or 1.85% for hazardous duty employees as elected by the employer. Under Plan 2, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the retirement multiplier is 1.65% for non-hazardous duty employees, 1.85% for sheriffs and regional jail superintendents, and 1.7% or 1.85% for hazardous duty employees as elected by the employer. Under the Hybrid Plan, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the multiplier is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

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

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

Employees Covered by Benefit Terms

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

	2019	2018
Inactive members or their beneficiaries currently receiving benefits	17	13
Inactive members:		
Vested inactive members	1	1
Non-vested inactive members	7	7
Long-term disability (LTD)	0	0
Inactive members active elsewhere in VRS	5	5
Total inactive members	13	13
Active members	9	9
Total covered employees	39	35

NOTE 6–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 year ended June 30, 2019 was 9.32% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The Authority's contractually required employer contribution rate for the year ended June 30, 2018 was 7.92% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were $54,531 and $32,983 for the years ended June 30, 2019 and June 30, 2018, 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, 2018. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2017 rolled forward to the measurement date of June 30, 2018.

Actuarial Assumptions – General Employees

The total pension liability for General Employees in the Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

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

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

NOTE 6–PENSION PLAN: (CONTINUED)

Actuarial Assumptions – General Employees: (Continued)

Mortality rates:

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

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

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

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

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

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

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

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

NOTE 6–PENSION PLAN: (CONTINUED)

Actuarial Assumptions – General Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Largest 10 – Non-Hazardous Duty:

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

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

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

NOTE 6–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	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	100.00%		4.80%
		Inflation	2.50%
		*Expected arithmetic nominal return	7.30%

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

NOTE 6–PENSION PLAN: (CONTINUED)

Discount Rate

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Authority was also provided with an opportunity to use an alternative employer contribution rate. For the year ended June 30, 2018, the alternate rate was the employer contribution rate used in FY 2012 or 90% of the actuarially determined employer contribution rate from the June 30, 2015 actuarial valuations, whichever was greater. From July 1, 2018 on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

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, 2017	$ 2,547,363	$ 2,450,542	$ 96,821
Changes for the year:			
Service cost	$ 46,031	$ -	$ 46,031
Interest	172,406	-	172,406
Changes in assumptions	-	-	-
Difference between expected and actual experience	69,836	-	69,836
Contributions - employer	-	32,983	(32,983)
Contributions - employee	-	20,620	(20,620)
Net investment income	-	178,448	(178,448)
Benefit payments, including refunds of employee contributions	(168,839)	(168,839)	-
Administrative expenses	-	(1,606)	1,606
Other changes	-	(156)	156
Net changes	$ 119,434	$ 61,450	$ 57,984
Balances at June 30, 2018	$ 2,666,797	$ 2,511,992	$ 154,805

NOTE 6–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, 2016	$ 2,511,532	$ 2,287,016	$ 224,516
Changes for the year:			
Service cost	$ 48,984	$ -	$ 48,984
Interest	170,210	-	170,210
Changes in assumptions	(29,532)	-	(29,532)
Difference between expected and actual experience	6,093	-	6,093
Contributions - employer	-	32,319	(32,319)
Contributions - employee	-	20,045	(20,045)
Net investment income	-	272,976	(272,976)
Benefit payments, including refunds of employee contributions	(159,924)	(159,924)	-
Administrative expenses	-	(1,651)	1,651
Other changes	-	(239)	239
Net changes	$ 35,831	$ 163,526	$ (127,695)
Balances at June 30, 2017	$ 2,547,363	$ 2,450,542	$ 96,821

NOTE 6–PENSION PLAN: (CONTINUED)

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

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 Solid Waste Authority's Net Pension Liability	1% Decrease (6.00%)	Rate Current Discount (7.00%)	1% Increase (8.00%)
2019	$ 406,885	$ 154,805	$ (62,479)

	1% Decrease (6.00%)	Rate Current Discount (7.00%)	1% Increase (8.00%)
2018	$ 357,043	$ 96,821	$ (127,047)

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

For the year ended June 30, 2019, the Authority recognized pension expense of $51,657. At June 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 18,486	$ -
Change in assumptions	-	-
Net difference between projected and actual earnings on pension plan investments	-	19,635
Employer contributions subsequent to the measurement date	54,531	-
Total	$ 73,017	$ 19,635

NOTE 6–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, 2018, the Authority recognized pension expense of ($5,670). At June 30, 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 1,546	$ -
Change in assumptions	-	7,493
Net difference between projected and actual earnings on pension plan investments	-	34,512
Employer contributions subsequent to the measurement date	32,983	-
Total	$ 34,529	$ 42,005

$54,531 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:

Year ended June 30	
2020	$ 27,963
2021	(1,366)
2022	(25,545)
2023	(2,201)
Thereafter	-

$32,983 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, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

Year ended June 30	
2019	$ (29,628)
2020	11,678
2021	835
2022	(23,344)
Thereafter	-

NOTE 6–PENSION PLAN: (CONTINUED)

Pension Plan Data

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

NOTE 7–CLOSURE AND POST-CLOSURE CARE COSTS:

State and federal laws and regulations require the Authority to place a final cover on its Ivy landfill site when it stops accepting waste and to perform certain maintenance and monitoring functions at the site for thirty years after closure. Although the landfill has stopped operating as a landfill, the Authority must recognize the estimated costs of closure corrective action and post-closure care as a liability on the financial statements. As work is completed, the liability recognized by the Virginia Department of Environmental Quality is reduced. The Authority is implementing a corrective action plan to correct detected environmental issues at the landfill. The amount recorded as accrued corrective action costs is $3,207,555 at June 30, 2019. The $2,440,309 reported as post-closure monitoring liability at June 30, 2019 represents the cumulative amount reported to date based on the use of 100% of the currently permitted cells at the landfill. In addition to the costs reported for the Ivy landfill site, the Authority has accrued closure costs for the Ivy transfer station in the amount of $123,557. Total closure corrective action and post-closure care costs and post-closure monitoring costs accrued at June 30, 2019 are $5,771,421. The Authority will recognize any remaining costs of closure corrective action and post-closure care and post-closure monitoring as the closure is completed. These amounts are based on what it would cost to perform all closure and post-closure care in 2019. Actual costs may be higher due to inflation, changes in technology, or changes in regulations.

The Authority is required by state and federal laws and regulations to meet certain financial assurance requirements. The Authority has opted to meet these requirements through agreements with the participating localities, County of Albemarle and City of Charlottesville. The agreement provides guarantees by the County of Albemarle in the amount of $3,560,970 and the City of Charlottesville in the amount of $1,959,914 for a total guarantee of $5,520,884. The Authority expects that future inflation costs will be paid from interest earned on the annual contributions. However, if interest earnings are inadequate or additional post-closure care requirements are determined (due to changes in technology or applicable laws or regulations, for example), these costs may need to be covered by charges to future landfill users or other sources. Additionally, the Authority has set aside a cash account restricted for payment of the transfer station closure costs in the amount of $123,557.

On behalf of the Authority, the City of Charlottesville and the County of Albemarle demonstrate financial assurance requirements for closure, post-closure care, and corrective action costs through the submission of a Local Government Financial Test to the Virginia Department of Environmental Quality in accordance with section 9VAC-20-70 of the Virginia Administrative Code.

NOTE 8–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 Association of Counties Group Self-Insurance Risk Pool, 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, 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 9–SUMMARY OF LONG-TERM OBLIGATIONS:

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

	Balance July 1, 2018	Additions	Reductions	Balance June 30, 2019	Due Within One Year
Landfill and transfer station closure/ corrective action/post-closure costs	$ 5,897,214	$ 403,839	$ 529,632	$ 5,771,421	$ 483,443
Compensated absences	33,691	54,239	57,594	30,336	30,336
VERIP liability	113,454		37,483	75,971	37,483
Net pension liability	96,821	290,035	232,051	154,805	-
Net OPEB liability	36,000	6,000	6,000	36,000	-
Totals	$ 6,177,180	$ 754,113	$ 862,760	$ 6,068,533	$ 551,262

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

	Balance July 1, 2017	Additions	Reductions	Balance June 30, 2018	Due Within One Year
Landfill and transfer station closure/ corrective action/postclosure costs	$ 5,966,751	$ 400,876	$ 470,413	$ 5,897,214	$ 476,650
Compensated absences	29,662	35,055	31,026	33,691	30,000
VERIP liability	156,687	1,162	44,395	113,454	37,483
Net pension liability	224,516	227,177	354,872	96,821	-
Net OPEB liability	-	36,000	-	36,000	-
Totals	$ 6,377,616	$ 700,270	$ 900,706	$ 6,177,180	$ 544,133

NOTE 10–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 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN):

Plan Description

The Group Life Insurance (GLI) Program was established pursuant to §51.1-500 et seq. of the 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 Program upon employment. This is a cost-sharing multiple-employer plan administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

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

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

Eligible Employees

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

Benefit Amounts

The GLI Program is a defined benefit plan with several components. The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled. The accidental death benefit is double the natural death benefit. In addition to basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances that include the following: accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option. The benefit amounts are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value. For covered members with at least 30 years of creditable service, the minimum benefit payable was set at $8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and was increased to $8,279 effective July 1, 2018.

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Contributions

The contribution requirements for the GLI Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% x 60%) and the employer component was 0.52% (1.31% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2019 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the GLI Program from the entity were $3,428 and $2,333 for the years ended June 30, 2019 and June 30, 2018, respectively.

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

At June 30, 2019, the entity reported a liability of $36,000 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 Program for the year ended June 30, 2018 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2018, the participating employer's proportion was 0.00234% as compared to 0.00233% at June 30, 2017.

At June 30, 2018, the entity reported a liability of $36,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2017 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, the participating employer's proportion was .00233% as compared to .00235% at June 30, 2016.

For the years ended June 30, 2019 and 2018, the participating employer recognized GLI OPEB expense of $0. 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.

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

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

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 2,000	$ 1,000
Net difference between projected and actual earnings on GLI OPEB program investments	-	1,000
Change in assumptions	-	1,000
Changes in proportion	-	-
Employer contributions subsequent to the measurement date	3,428	-
Total	$ 5,428	$ 3,000

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 1,000
Net difference between projected and actual earnings on GLI OPEB program investments	-	1,000
Change in assumptions	-	2,000
Changes in proportion	-	-
Employer contributions subsequent to the measurement date	2,333	-
Total	$ 2,333	$ 4,000

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

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

$3,428 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	$	(1,000)
2021		-
2022		-
2023		-
2024		-
Thereafter		-

$2,333 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year Ended June 30		
2019	$	(1,038)
2020		(1,038)
2021		(1,038)
2022		(612)
2023		(275)
Thereafter		-

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

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

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

Mortality Rates – General State Employees

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – General State Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – Teachers

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – Teachers: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – SPORS Employees

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – SPORS Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – VaLORS Employees

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – VaLORS Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – JRS Employees

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – JRS Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – Largest Ten Locality Employers – General Employees

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

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

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

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.

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

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

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – Largest Ten Locality Employers – Hazardous Duty Employees

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – Largest Ten Locality Employers – Hazardous Duty Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

Mortality Rates – Non-Largest Ten Locality Employers – Hazardous Duty Employees

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Actuarial Assumptions: (Continued)

Mortality Rates – Non-Largest Ten Locality Employers – Hazardous Duty Employees: (Continued)

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

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

NET GLI OPEB Liability

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

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

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

		GLI OPEB Program
Total GLI OPEB Liability	$	2,942,426
Plan Fiduciary Net Position		1,437,586
Employers' Net GLI OPEB Liability (Asset)	$	1,504,840
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability		48.86%

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

NET GLI OPEB Liability: (Continued)

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

Long-Term Expected Rate of Return

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

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

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

NOTE 11–GROUP LIFE INSURANCE (GLI) PROGRAM (OPEB PLAN): (CONTINUED)

Discount Rate

The discount rate used to measure the total GLI OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ended June 30, 2018, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly which was 100% of the actuarially determined contribution rate. From July 1, 2018 on, employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB's fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

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

The 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 Program Net OPEB Liability	Rate: 1% Decrease (6.00%)	Rate: Current Discount (7.00%)	Rate: 1% Increase (8.00%)
2019	$ 47,000	$ 36,000	$ 27,000

	Rate: 1% Decrease (6.00%)	Rate: Current Discount (7.00%)	Rate: 1% Increase (8.00%)
2018	$ 46,000	$ 36,000	$ 27,000

GLI Program Fiduciary Net Position

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

NOTE 12–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 $460,000 in FY 2019 and $409,000 in FY 2018 and for leachate acceptance and treatment of $4,285 in FY 2019 and $1,563 in FY 2018. Rivanna Solid Waste Authority billed Rivanna Water & Sewer Authority $40,547 for hauling and tipping fees in FY 2019 and $51,889 in the previous year. RSWA owed RWSA $49,683 and $36,867 at June 30, 2019 and 2018, respectively.

NOTE 13–VOLUNTARY EARLY RETIREMENT INCENTIVE PROGRAM:

Rivanna Solid Waste 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 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, 2019 and 2018 was $75,971 and $113,454, respectively. The amount payable within the next year is $37,483.

NOTE 14–UPCOMING FINANCIAL REPORTING PRONOUNCEMENTS:

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

Statement No. 87, Leases, requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

NOTE 14–UPCOMING FINANCIAL REPORTING PRONOUNCEMENTS: (CONTINUED)

Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period, provides guidance for reporting capital assets and the cost of borrowing for a reporting period and simplifies accounting for interest cost incurred before the end of a construction period. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

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

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

Management is currently evaluating the relevance of these standards to the Authority and the impact they will have on the financial statements if adopted.

NOTE 15–CONSTRUCTION COMMITMENTS:

Rivanna Solid Waste Authority had no significant construction contract commitments for capital projects as of June 30, 2019 and the following commitments as of June 30, 2018:

Project	Incurred To Date	Remaining Commitment
New Ivy Transfer Station	$ 1,854,658	$ 392,939
Flare Installation	110,865	259,046

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

NOTE 16–RESTATEMENT OF BEGINNING NET POSITION:

The Authority implemented the financial reporting provisions of Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* during the fiscal year ended June 30, 2018. This Statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures related to postemployment benefits other than pensions (other postemployment benefits or OPEB). Note disclosure and required supplementary information requirements about OPEB are also addressed. The requirements of this Statement will improve accounting and financial reporting by state and local governments for OPEB. In addition, the Authority implemented Governmental Accounting Standards Board Statement No. 85, *Omnibus 2017,* during the fiscal year ended June 30, 2018. This Statement addresses practice issues identified during implementation and application of certain GASB statements for a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits (OPEB)). The implementation of these Statements resulted in the following restatement of net position:

		Amount
Net Position as of July 1, 2017, previously reported	$	4,884,972
OPEB liability restated as of July 1, 2017 - group life insurance		(40,000)
Net Position as of July 1, 2017, as restated	$	4,844,972

This page intentionally left blank

Required Supplementary Information

RIVANNA SOLID WASTE AUTHORITY

Schedule of Changes in Net Pension Liability and Related Ratios
For the Plan Years Ended June 30, 2014 through June 30, 2018

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 46,031	$ 48,984	$ 47,552	$ 44,891	$ 57,148
Interest	172,406	170,210	167,674	172,433	165,972
Difference between expected and actual experience	69,836	6,093	(34,352)	(157,193)	-
Changes in assumptions	-	(29,532)	-	-	-
Benefit payments, including refunds of employee contributions	(168,839)	(159,924)	(129,362)	(126,868)	(134,796)
Net change in total pension liability	$ 119,434	$ 35,831	$ 51,512	$ (66,737)	$ 88,324
Total pension liability - beginning	2,547,363	2,511,532	2,460,020	2,526,757	2,438,433
Total pension liability - ending (a)	$ 2,666,797	$ 2,547,363	$ 2,511,532	$ 2,460,020	$ 2,526,757
Plan fiduciary net position					
Contributions - employer	$ 32,983	$ 32,319	$ 40,825	$ 38,370	$ 44,486
Contributions - employee	20,620	20,045	20,729	19,552	18,368
Net investment income	178,448	272,976	38,903	103,238	317,095
Benefit payments, including refunds of employee contributions	(168,839)	(159,924)	(129,362)	(126,868)	(134,796)
Administrative expense	(1,606)	(1,651)	(1,465)	(1,462)	(1,754)
Other	(156)	(239)	(17)	(21)	17
Net change in plan fiduciary net position	$ 61,450	$ 163,526	$ (30,387)	$ 32,809	$ 243,416
Plan fiduciary net position - beginning	2,450,542	2,287,016	2,317,403	2,284,594	2,041,178
Plan fiduciary net position - ending (b)	$ 2,511,992	$ 2,450,542	$ 2,287,016	$ 2,317,403	$ 2,284,594
Authority's net pension liability - ending (a) - (b)	$ 154,805	$ 96,821	$ 224,516	$ 142,617	$ 242,163
Plan fiduciary net position as a percentage of the total pension liability	94.20%	96.20%	91.06%	94.20%	90.42%
Covered payroll	$ 441,868	$ 429,354	$ 422,207	$ 395,326	$ 367,351
Authority's net pension liability as a percentage of covered payroll	35.03%	22.55%	53.18%	36.08%	65.92%

This schedule is intended to report information for 10 years. Fiscal year 2015 is the first year for this presentation, no other data is available. Additional years will be included when available.

RIVANNA SOLID WASTE AUTHORITY

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

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)
2019	$ 54,531	$ 54,531	$ -	$ 653,939	8.34%
2018	32,983	32,983	-	441,868	7.46%
2017	32,319	32,319	-	429,354	7.53%
2016	40,825	40,825	-	422,207	9.67%
2015	38,370	38,370	-	395,326	9.71%
2014	44,486	44,486	-	367,351	12.11%
2013	66,260	66,260	-	547,151	12.11%
2012	57,640	57,640	-	506,945	11.37%
2011	56,790	56,790	-	499,468	11.37%
2010	58,158	58,158	-	592,844	9.81%

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

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

Largest 10 – Non-Hazardous Duty:

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

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

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

RIVANNA SOLID WASTE AUTHORITY

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

Date (1)	Employer's Portion 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)
2018	0.00234%	$ 36,000	$ 441,868	8.15%	51.22%
2017	0.00233%	36,000	429,354	8.38%	48.86%

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 SOLID WASTE AUTHORITY

Schedule of Employer Contributions
Group Life Insurance Program
For the Years Ended June 30, 2017 through June 30, 2019

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2019	$ 3,428	$ 3,428	$ -	$ 653,939	0.52%
2018	2,333	2,333	-	441,868	0.53%
2017	2,233	2,233	-	429,354	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.

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

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

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

General State Employees

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

Teachers

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

SPORS Employees

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

VaLORS Employees

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

Notes to Required Supplementary Information
Group Life Insurance Program
For the Year Ended June 30, 2019 (Continued)

JRS Employees

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

Largest Ten Locality Employers - General Employees

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

Non-Largest Ten Locality Employers - General Employees

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

Largest Ten Locality Employers - Hazardous Duty Employees

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

Non-Largest Ten Locality Employers - Hazardous Duty Employees

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

Statistical Section

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

This page intentionally left blank

RIVANNA SOLID WASTE AUTHORITY **Table 1**

Net Position by Component
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Net investment in capital assets	$ 10,062,470	$ 9,192,978	$ 6,840,559	$ 6,268,650	$ 6,246,134	$ 6,232,154	$ 6,333,722	$ 6,488,690	$ 6,566,617	$ 6,720,624
Unrestricted	(2,777,754)	(2,677,368)	(1,955,587)	(1,837,329)	(2,412,362)	(2,437,339)	493,493	144,228	1,308,953	1,345,007
Total net position	$ 7,284,716	$ 6,515,610	$ 4,884,972	$ 4,431,321	$ 3,833,772	$ 3,794,815	$ 6,827,215	$ 6,632,918	$ 7,875,570	$ 8,065,631

RIVANNA SOLID WASTE AUTHORITY **Table 2**

Changes in Net Position
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Operating revenues:										
Tipping fees	$ 1,321,174	$ 878,841	$ 876,382	$ 723,803	$ 685,784	$ 693,865	$ 915,834	$ 862,422	$ 1,040,183	$ 1,900,713
Recycling revenues	152,871	195,912	227,614	138,239	126,178	153,443	174,674	236,130	272,016	283,130
Other revenue	238,541	233,133	214,771	191,172	257,404	239,958	231,447	214,836	165,626	140,112
Total operating revenues	$ 1,712,586	$ 1,307,886	$ 1,318,767	$ 1,053,214	$ 1,069,366	$ 1,087,266	$ 1,321,955	$ 1,313,388	$ 1,477,825	$ 2,323,955
Operating expenses:										
Administration	$ 687,571	$ 496,812	$ 388,524	$ 398,610	$ 338,200	$ 385,056	$ 345,206	$ 344,974	$ 352,179	$ 1,149,318
Transfer station	1,419,777	909,581	808,104	798,313	754,792	694,271	894,903	875,498	859,182	1,458,446
Ivy Material Utilization Center	359,715	298,782	259,669	257,481	205,089	217,787	299,122	258,343	273,268	305,547
Ivy environmental ***	524,934	425,466	264,995	(13,152)	318,515	3,472,632	528,473	1,680,530	826,564	(155,371)
Recycling programs	431,398	455,216	312,052	296,725	239,660	244,506	250,385	253,873	290,298	400,034
Depreciation	120,830	58,566	51,789	54,885	66,639	98,568	154,968	148,071	175,814	199,117
Total operating expenses	$ 3,544,225	$ 2,644,423	$ 2,085,133	$ 1,792,862	$ 1,922,895	$ 5,112,820	$ 2,473,057	$ 3,561,289	$ 2,777,305	$ 3,357,091
Operating income (loss)	$ (1,831,639)	$ (1,336,537)	$ (766,366)	$ (739,648)	$ (853,529)	$ (4,025,554)	$ (1,151,102)	$ (2,247,901)	$ (1,299,480)	$ (1,033,136)
Nonoperating revenues (expenses):										
Interest earned	$ 69,162	$ 50,437	$ 31,333	$ 16,107	$ 8,745	$ 7,766	$ 10,963	$ 11,590	$ 12,438	$ 18,028
Local government contributions - remediation support	383,742	396,787	576,714	720,151	809,908	817,348	770,722	755,253	875,480	409,624
Local government contributions - operations support	1,078,539	747,161	368,856	542,926	398,040	135,286	517,344	203,978	192,372	905,087
Settlement income	-	-	-	-	-	-	-	10,997	-	900,000
Grant income	29,597	27,118	27,811	28,878	28,562	28,554	32,370	23,431	26,714	23,408
Other income	7,308	8,034	5,220	31,800	-	7,200	14,000	-	7,130	-
Gain (loss) on disposal of assets	(42,728)	5,846	-	(2,665)	-	(3,000)	-	-	1,527	2,081
Interest expense	-	-	-	-	-	-	-	-	(6,242)	(17,681)
Total nonoperating revenues (expenses)	$ 1,525,620	$ 1,235,383	$ 1,009,934	$ 1,337,197	$ 1,245,255	$ 993,154	$ 1,345,399	$ 1,005,249	$ 1,109,419	$ 2,240,547
Income before capital grants	$ (306,019)	$ (101,154)	$ 243,568	$ 597,549	$ 391,726	$ (3,032,400)	$ 194,297	$ (1,242,652)	$ (190,061)	$ 1,207,411
Capital grants	1,075,125	1,771,792	210,083	-	-	-	-	-	-	-
Change in net position	$ 769,106	$ 1,670,638	$ 453,651	$ 597,549	$ 391,726	$ (3,032,400)	$ 194,297	$ (1,242,652)	$ (190,061)	$ 1,207,411

*** Ivy Environmental expenses include landfill closure and post-closure costs.

RIVANNA SOLID WASTE AUTHORITY **Table 3**

Annual Tonnages of Selected Categories of Waste Received
Last Ten Fiscal Years

Years Ended June 30,	Municipal Solid Waste	White Goods	Tires	Clean Fill	Sludge	Grindable Vegetative Material
2010	42,163	153	154	5,760	1,091	2,756
2011	26,735	120	151	10,763	1,231	2,912
2012	21,448	87	158	6,648	878	1,877
2013	18,124	76	131	10,489	0	3,714
2014	6,864	73	92	9,087	0	2,016
2015	7,097	80	133	5,952	0	1,874
2016	7,761	107	169	5,889	0	1,560
2017	8,341	123	87	6,354	0	2,864
2018	8,423	119	58	4,819	0	2,199
2019	16,404	121	171	7,764	0	2,989

RIVANNA SOLID WASTE AUTHORITY **Table 4**

Waste Tonnages Diverted for Reuse or Recycling
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Cardboard (corrugated)	807	763	812	459	278	279	358	359	482	482
Newspaper, magazines, catalogs	427	424	419	512	524	640	782	765	858	1,150
Mixed paper and phone books	265	186	156	214	212	265	214	258	228	412
File stock (office paper)	128	111	122	125	125	164	192	172	220	288
Glass ***	411	252	252	191	219	249	398	357	413	684
Metal cans	58	41	31	32	30	34	47	55	41	100
Plastic	127	103	86	82	95	98	69	82	81	160
White goods (scrap metal)	121	119	123	107	80	73	76	87	120	153
Vegetation	2,989	2,199	2,864	1,560	1,874	2,016	3,714	1,877	2,912	2,756
Pallets	73	77	72	55	79	71	81	88	89	114
Tires	171	58	87	169	133	92	131	158	151	154
	5,577	4,333	5,024	3,506	3,649	3,981	6,062	4,258	5,595	6,453

Note:
*** Glass includes glass crushed and reused on roads at Ivy MUC for FY 2012 and prior years.

RIVANNA SOLID WASTE AUTHORITY **Table 5**

Tipping Fees Per Ton By Waste Category
Last Ten Fiscal Years

Waste Category	Fiscal Years Ended June 30, 2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Municipal:										
Ivy Transfer Station	$ 52.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00	$ 66.00
BFI Transfer Station	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	62.00
Vegetative	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00
Tires:										
Whole Tires	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	173.10
White Goods:										
Non-Freon	105.00	105.00	105.00	105.00	105.00	105.00	105.00	105.00	105.00	104.30
Clean-Fill	10.00	10.00	10.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Sludge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.00	8.00	7.30
Pallets	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	46.00

RIVANNA SOLID WASTE AUTHORITY **Table 6**

Top Ten Customers
Current Year and Nine Years Ago

Fiscal Year 2019 (Current Year):

	Operating Revenues	
	Amount	**% of Total**
Sonoco	121,839	7%
Cavalier Container, LLC	118,374	7%
Waste Management of VA, Inc.	114,678	7%
Black Bear Composting	78,365	5%
Gerdau Metals Recycling	62,483	4%
Albemarle County	49,429	3%
Time Disposal	43,827	3%
Rivanna Water & Sewer Authority	40,547	2%
Happy Little Dumpsters, LLC	36,980	2%
Oakhill Investments, LLC	22,824	1%
Subtotal (top ten customers)	$ 689,346	40%
Other customers	1,023,240	60%
Total	$ 1,712,586	100%

Fiscal Year 2010 (Nine Years Ago):

	Operating Revenues	
	Amount	**% of Total**
City of Charlottesville	$ 401,807	17%
Waste Mgmt. of VA-Blue Ridge	257,814	11%
International Paper	219,981	9%
Albemarle County	79,967	3%
Dixon's Trash Disposal	71,633	3%
Cycle Systems, Inc.	68,927	3%
Rivanna Water & Sewer Authority	56,723	2%
McCauley's Disposal Service	46,519	2%
Barnett's Trash Service	39,941	2%
Efficient Roll-Off & Recycling	39,644	2%
Subtotal (top ten customers)	$ 1,282,956	55%
Other customers	1,064,407	45%
Total	$ 2,347,363	100%

RIVANNA SOLID WASTE AUTHORITY **Table 7**

Outstanding Debt by Type
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Bank notes payable	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 206,827
Total outstanding debt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 206,827
Debt per capita	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 1.47

Note: Debt per capita was calculated based on population figures for the calendar year ending within the fiscal year obtained from U.S. Department of Commerce - Bureau of Economic Analysis for the City of Charlottesville and County of Albemarle.

RIVANNA SOLID WASTE AUTHORITY **Table 8**

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

Calendar Year	Population (2)	Personal Income (thousands of $) (2)	Per Capita Personal Income ($) (2)	Unemployment Rate (1)
2009	141,125	6,825,990	48,368	5.8%
2010	142,703	7,209,179	50,519	6.5%
2011	144,094	7,623,402	52,906	5.9%
2012	146,077	8,402,062	57,518	5.5%
2013	147,430	8,270,217	56,096	5.0%
2014	149,410	8,881,388	59,443	4.6%
2015	151,694	9,494,461	62,590	3.9%
2016	153,705	9,981,222	64,938	3.6%
2017	155,721	10,531,351	67,630	3.3%
2018	not available	not available	not available	2.7%

(1) Virginia Employment Commission - Virginia Workforce Connection - for Charlottesville Metropolitan Service Area
(2) U.S. Department of Commerce - Bureau of Economic Analysis - for City of Charlottesville and Albemarle County

RIVANNA SOLID WASTE AUTHORITY **Table 9**

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

	Fourth Quarter of 2018		Fourth Quarter of 2009	
Employer	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	1,000 & over	2
County of Albemarle	1,000 & over	3	1,000 & over	3
Sentara Health Care	1,000 & over	5		
Martha Jefferson Hospital			1,000 & over	4
UVA Health Services Foundation	1,000 & over	4	1,000 & over	7
City of Charlottesville	1,000 & over	6	1,000 & over	5
Charlottesville City School Board	500-999	7	500-999	8
State Farm Mutual Automobile Insurance	500-999	8	1,000 & over	6
U.S. Department of Defense	500-999	9		
Servicelink Management Com Inc	500-999	10		
Northrop Grumman Corporation			500-999	10
Aramark Campus LLC			500-999	9

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

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

RIVANNA SOLID WASTE AUTHORITY **Table 10**

Number of Positions by Activity
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Number of budgeted full-time equivalent positions:										
Operations Support Administrator	1.0									
Ivy Operations and Environmental	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Positions Allocated Between Transfer, Ivy Operations, and Recycling										
-Attendants	5.2	2.7	3.2	3.2	3.2	3.2	7.5	7.5	6.0	9.5
-CDL Drivers	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0
Recycling	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3.1
Joint Administrative Staff	4.0	3.5	3.4	3.5	2.6	2.6	2.6	2.8	2.8	4.9
Total	18.9	14.0	12.6	12.7	11.8	11.8	16.1	16.3	15.9	22.5

Rivanna Water & Sewer Authority shares its administration staff with Rivanna Solid Waste Authority. The number noted above is the number of full time employee equivalents allocated to Rivanna Solid Waste Authority.

RIVANNA SOLID WASTE AUTHORITY **Table 11**

Operating and Capital Indicators
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Waste facilities:										
Rivanna-owned MSW/CDD transfer stations:										
Number of owned MSW/CDD transfer stations	1	1	1	1	1	1	1	1	1	1
Ivy Material Utilization Center (IMUC)										
Total MSW/CDD tonnage received	16,404	8,423	8,341	7,761	7,097	6,864	18,124	21,448	26,735	30,311
Average daily tonnage received	61	33	33	31	28	27	59	69	87	98
Design capacity in tons per day (Note 1)	300	150	150	150	150	150	150	150	150	150
All other waste tonnage received (Ivy MUC)	11,118	7,272	9,499	7,780	8,117	11,340	14,491	10,094	15,670	10,723
Number of vehicles visiting IMUC	46,228	39,342	37,207	34,596	33,793	34,335	42,121	41,957	47,827	48,896
Number of transactions	88,080	74,828	71,827	67,258	64,818	65,944	80,037	78,531	92,399	50,887
Contracted MSW/CDD transfer stations:										
Number of contracted MSW/CDD transfer stations	0	0	0	0	0	0	0	0	0	1
Total MSW/CDD tonnage received	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11,852
Number of transactions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,220
Average daily tonnage received	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	38
Design capacity (Note 2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Recycling facilities:										
Number of recycling centers	2	2	2	2	2	2	2	2	2	2
Number of newspaper-only drop off sites	2	2	2	3	3	3	3	3	2	2
Tons of recyclable materials received	2,224	1,881	1,878	1,615	1,483	1,729	2,060	2,048	2,323	3,073

Note 1: Design capacity of the Ivy Material Utilization Center increased from 150 to 300 tons per day with the completion of the new facility in September 2019.
Note 2: Design capacity of the contracted MSW/CDD transfer station is not applicable, because it accepted waste from sources other than RSWA.

RIVANNA SOLID WASTE AUTHORITY **Table 12**

Schedule of Insurance in Force
June 30, 2019

Type Of Coverage/Company Name		Coverage Limits		Annual Premium
Commercial Property				
Virginia Association of Counties 07/01/18-07/01/19	$ 5,389,574	Property Value and Business Income/ Extra Expense	$	5,884
Worker's Compensation				
Virginia Municipal Group Self Insurance Association 07/01/18-07/01/19	$ 1,000,000	Each Occurrence	$	42,158
Comprehensive Automobile				
Virginia Association of Counties 07/01/18-07/01/19	$ 10,000,000	Comprehensive & Collision	$	4,484
Crime Policy				
Virginia Association of Counties 07/01/18-07/01/19	$ 500,000		$	975
General Liability				
Virginia Association of Counties 07/01/18-07/01/19	$ 10,000,000		$	3,402
Public Officials Liability				
Virginia Association of Counties 07/01/18-07/01/19	$ 10,000,000		$	1,134

ROBINSON, FARMER, COX ASSOCIATES, PLLC

Certified Public Accountants

CPAs | Consultants

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 Solid Waste 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 Solid Waste Authority as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise Rivanna Solid Waste Authority's basic financial statements and have issued our report thereon dated October 25, 2019.

Internal Control over Financial Reporting

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

Purpose of this Report

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

Robinson, Farmer, Cox Associates

Charlottesville, Virginia
October 25, 2019