ROANOKE VALLEY RESOURCE AUTHORITY

Comprehensive Annual Financial Report
For the Year Ended June 30, 2020

TINKER CREEK TRANSFER STATION

Roanoke, Virginia

ROANOKE VALLEY RESOURCE AUTHORITY

ROANOKE, VIRGINIA

Comprehensive Annual Financial Report
For the Year Ended June 30, 2020

Prepared by:

Roanoke County Department of Finance and Management Services

ROANOKE VALLEY RESOURCE AUTHORITY

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INTRODUCTORY SECTION

September 21, 2020

To the Honorable Chairman, Members of the Board of Directors of the Roanoke Valley Resource Authority, and Citizens of the Cities of Roanoke and Salem, the County of Roanoke and the Town of Vinton, Virginia:

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Roanoke Valley Resource Authority (Authority) for the fiscal year ended June 30, 2020. This audit was conducted in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and *Specifications for Audits of Authorities, Boards and Commissions,* issued by the Auditor of Public Accounts for the Commonwealth of Virginia.

This report consists of management's representations concerning the finances of the Authority. Consequently, management assumes full responsibility for both the accuracy of the data and the completeness and fairness of the presentations, including all disclosures. Management has established a comprehensive framework of internal control to provide a reasonable basis to make these representations. Because the cost of internal controls should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. To the best of our knowledge and belief, the enclosed financial data is accurate in all material respects and fairly presents the financial position, results of operations and cash flows of the Authority. All disclosures necessary to enable the reader to gain an understanding of the Authority's financial activities have been included.

The basic financial statements have been audited by our independent auditors, Robinson, Farmer, Cox Associates, who have issued an unmodified (clean) opinion on the financial statements of the Authority for the year ending June 30, 2020. The annual audit was conducted in accordance with professional standards which require that the independent auditors plan and perform the audit to obtain reasonable rather than absolute, assurance about whether the financial statements are free of material misstatement. The independent auditors' report is located at the front of the financial section of this report.

Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview, and analysis of the basic financial statements. This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it.

Profile of the Government

The Roanoke Valley Resource Authority (Authority) was established on October 23, 1991, as a tax exempt political subdivision within the Commonwealth of Virginia to acquire and construct a

1020 Hollins Road, NE Roanoke, Virginia 24012-8011 (540) 857-5050 Fax (540) 857-5056
Web Site: www.rvra.net

regional sanitary landfill and waste collection and transfer station with related treatment facilities. The charter members are the City of Roanoke, County of Roanoke, and the Town of Vinton. The Authority began its operations in 1993. The City of Salem joined July 1, 2016 and RVRA assumed ownership and operational control of Salem's transfer station on November 1, 2016.

The Authority's Board of Directors consists of nine members; five are appointed by Roanoke County, two are appointed by Roanoke City, one is appointed by Salem City, and one is appointed by the Town of Vinton. Each member is appointed for a four year term. Regular meetings of the Board of Directors are normally held monthly.

The Authority is administered by a Chief Executive Officer (CEO). The CEO has the direct supervision of all employees of the Authority, the responsibility for the operation of the landfill facilities, and the establishment of guidelines for efficient and sound fiscal management.

Residents and businesses in the Roanoke City, the Roanoke County, Salem City and the Town of Vinton generate approximately 212,000 tons of wastes every year with approximately 202,000 tons landfilled. The remaining tonnages are recycled. Each locality collects its own trash using its own equipment. After collection, all but the City of Salem, refuse trucks deliver the trash to the Authority's Tinker Creek Transfer Station (TCTS) in the City of Roanoke. The City of Salem delivers its trash to the Authority's Salem Transfer Station (STS). Wastes received at the STS are currently transported by a contract over-the-road hauler, using RVRA's trailers, to the TCTS. At the TCTS, waste is loaded into specially designed rail cars and covered with watertight lock-down lids. Each rail car holds approximately 65 tons of waste, making them among the largest on the railroad. At the end of the day, all waste that has been collected and loaded into the rail cars is transported 33 miles on the Waste Line Express by Norfolk Southern to Smith Gap Station in the County. Upon arriving at the landfill, the rail cars are uncoupled and positioned for unloading the following day. The train then returns the same day with empty rail cars from the previous day's load.

Additional information on this process including a seven minute video may be gleaned by accessing the Authority's website at www.RVRA.net.

At Smith Gap Station the rail cars are unloaded using one of the largest rotary tippers in the world. The rail cars are rotated upside down to remove the waste. The unloading operation takes place inside the tipper building, where the waste is inspected and loaded into haul trucks for burial in a 1,200 acre, environmentally protected landfill disposal area that meets all state and federal regulations.

Budgetary and Accounting Controls

The Authority is required to prepare and submit an annual operating budget to the Charter Members for approval on or before April 1 of each year for the upcoming fiscal year (July 1 to June 30). The budget is prepared by staff of the Authority and serves as the foundation for the Authority's financial planning and control.

The Authority's accounting records are maintained on an accrual basis under which revenues are recognized when earned and expenses are recognized when incurred. Accounting functions are separated to the extent possible for a small sized staff. The County of Roanoke currently is the fiscal agent for the Authority. The accounting system the Authority is using belongs to the County and County staff has provided support and assistance to the Authority in its accounting operations.

Local Economy

The Authority draws from a regional labor force of approximately 300,000 within a radius of sixty miles. The Roanoke Valley as well as the surrounding communities, are fortunate that their economic indicators are more favorable compared to some of the neighboring localities and to the State, but there remain formidable challenges for the Roanoke Valley; not only in the delivery of local government and authority services, but also in maintaining our traditionally high standard of living and quality of life.

The Economic Development Department of each locality successfully utilizes provisions under the public/private partnership policy that allows businesses to receive assistance from them for qualifying facility expansions and relocations. The expected return on investment in new taxes and employment is a critical measure governing the use of public funds to assist businesses and industries.

Long-Term Financial Planning

The Authority annually reviews the adequacy of the Replacement Reserve Requirements under the current operating conditions, and in comparison with industry standards. The review is done in consultation with a professional engineer familiar with solid waste services, equipment, and facilities as utilized by the Authority. A professional consulting engineer, external to the Authority, reviews the plan every five years. The Authority has defined adequacy to mean that funds exist in amounts equivalent to or exceeding the anticipated expenditures during a period of the next five subsequent fiscal years. The Authority annually makes deposits to replacement reserves for funding future planned expenditures. These reserves allow the Authority to establish and project an orderly increase in tipping fees to prepare for future expenses along with annual operating costs. All funds have been determined to be adequate to address industry costs and planning, thus allowing the reserve funds to reflect future anticipated costs over the next five years.

The Authority has established a "Closure Fund" to cover its future closure and post-closure obligations. Maintenance of this fund enables the Authority to qualify for Financial Assurance using a "Corporate Financial Test," thereby eliminating the need for additional financial commitments from its member communities in the form of a "Local Government Financial Test" or the additional annual cost for a "Letter of Credit" assuring the closure obligations will be met.

Major Initiatives and Accomplishments for FY 2020

- During the year, the Roanoke Valley Resources Authority maintained financial and reserve policies providing for the establishment of and the planned funding level of maintenance and improvement reserve accounts for planned expenditures over a short and long-term planning period.

- The Authority continues to maintain an account for a "Closure Fund" to cover future closure and post-closure obligations. This fund enables the Authority to qualify for Financial Assurance by using a "Corporate Financial Test," thereby eliminating the need for additional financial commitments from its member communities in the form of a "Local Government Financial Test" or the additional annual cost for a "Letter of Credit" assuring the closure obligations will be met. The Authority continues to maintain adequate funds (cash) to cover anticipated costs required for closure and post closure care of the active Smith Gap and closed Rutrough Road Landfills as well as the Tinker Creek and Salem Transfer Stations.

- The Authority continues to maintain and own sufficient land to provide long-term disposal capacity for its members in excess of 100 years which will be developed in phases or cells. The long-term disposal capacity provides the Authority with the flexibility it needs to properly evaluate emerging solid waste technologies and to allow sufficient timing to properly fund and to ultimately transition to one or more of these technologies if feasible.

- Since its inception, the Authority has developed six landfill cells in six construction phases to-date. Phase V provided disposal capacity through FY 2018. Construction of Phase VI began in FY'17, was completed in FY'18, and became operational in FY'19. Other than the initial Phase I, all funding associated with the construction of Phases II-VI has been cash-funded through an established and dedicated reserve account which continues to receive regular contributions from the Authority's tipping fees to cash-fund subsequent cell developments.

- Portions of the Smith Gap Landfill are nearing final construction grade and in accordance with the Authority's permit, are in the process of being closed. The Authority initiated the closure construction for seven acres of filled cells in FY'17 and subsequently completed this construction in FY'18. The closure of this area enabled the Authority to install additional gas collection wells completed in FY'20. All funding associated with closure construction has been cash-funded through an established and dedicated reserve account which continues to receive regular contributions from the Authority's tipping fees to cash-fund subsequent cell closures.

- As part of the original closure plan for the Smith Gap Landfill, the Authority installed an active gas collection and control system (GCCS) that began operations in April 2011. All funding for the closure plan, including the GCCS, is funded through an established reserve account which continues to receive regular contributions from tipping fees that will continue to fund subsequent cell closure costs. Although the Authority has no regulatory obligation to install and operate a GCCS at this time, the Authority's GCCS is currently collecting and preventing the annual emissions of approximately 60,000 tons of carbon dioxide equivalent (CO_2e) to the atmosphere, thereby greatly reducing greenhouse gas emissions. The Authority is a registered member of the California Climate Action Registry (CARs) which qualifies the Authority's destruction of greenhouse gases for emission credits which can be sold on the open market to help offset the initial cost of installing the GCCS. In FY 2015, the Authority received third party validation for approximately 93,000 tons of CO_2e emission credits which were sold, after expenses, for approximately \$106,000; in FY 2016 the Authority's CO_2e emission credits sold, after expenses, for approximately \$57,300; in FY 2017 the Authority's CO_2e emission credits sold, after expenses, for approximately \$42,600; in FY 2018 the Authority's CO_2e emission credits sold, after expenses, for approximately \$34,300; in FY 2019 the Authority's CO_2e emission credits sold, after expenses, for approximately \$107,270 for total net sales to-date of approximately \$347,230. FY 2019 was the last year the Authority projects to be eligible for these credits based on current federal and state regulations. Since the credits are paid one year in arrears, the Authority did not receive any further revenues from emission credit sales in FY'20.

- The Authority issued $20M in financing proceeds in FY'16 & '17. The debt was issued in association with the Authority's "Facilities Modifications and Improvements Program" ("Program") that includes five distinct projects: the Connector Road Project; the Salem Transfer Station Project; the Tinker Creek Transfer Station Project; the Smith Gap Regional Landfill Project; and the Rail Corridor Conversion Project. The Authority completed its third full year of debt service payments in FY'20.

- The Connector Road Project will ultimately construct a road that may serve as an alternative delivery system (vs. current rail-haul transportation of solid waste) and route for tractor trailers to access the Authority's Smith Gap Landfill directly from the interstate (I-81) in lieu of using the public road system. The Connector Road, in and by itself, serves as an effective negotiating tool with the Authority's current service provider to ensure the Authority will not overpay for its transportation services. If utilized, the Connector Road, in conjunction with the Rail Corridor Conversion Project, will provide safe, efficient and effective routing for the Authority's service provider via tractor trailer-hauled solid waste. It will also enable the Authority to entertain the fullest use of one of its most valuable assets, the Smith Gap Landfill, by expanding the Authority's potential customer base which would increase landfill tonnages in order to maximize its economies of scale. Land to construct the Connector Road Project was acquired by the Authority in FY 2017. Construction of the Connector Road began in FY'18 and was completed in FY'20.

- The Salem Transfer Station (STS) Project, Phase I, constructed two, new top-load hoppers to ultimately replace two compactor units. This conversion provided a more efficient load-out of solid waste into walking floor trailers that will be hauled by tractors, to the Authority's Tinker Creek Transfer Station, where the waste will be loaded onto rail cars for transport to the Smith Gap Landfill. The new load-out system will allow acceptance of large, bulky wastes at the STS to better serve the Authority's customers. In the event the Authority transitions from rail-haul transportation to tractor-trailers, deliveries will go directly to the Smith Gap Landfill avoiding the double-handling of its wastes from STS. Additionally, truck deliveries would be a shorter distance to the landfill saving additional operating costs. Phase I construction was initiated in FY'17 and was completed in FY'18. The Authority is continuing to evaluate its options to complete Phase II of this project which would include constructing a new entrance at the site; constructing a new scalehouse and residential service area; and rerouting traffic for additional vehicle queuing space and improved ingress and egress.

- The Tinker Creek Transfer Station Project; the Smith Gap Regional Landfill Project; and the Rail Corridor Conversion Project are currently being further evaluated by the Authority. In FY'18, the Authority authorized a new five-year transportation contract with Norfolk Southern Corp., effective July 1, 2018 through June 30, 2023. The contract provides the Authority with a sole-cancellation option at the end of any annual term under certain terms and conditions. The Authority will continue to utilize its rail-haul system, at a minimum, until its current transportation contract expires on June 30, 2023, unless that contract is cancelled by the Authority.

- The Authority joined forces with the Western Virginia Water Authority and the Roanoke County Recreation and Parks Department for the design and construction of a Joint Utility Project (JUP). The JUP constructed a water and sewer line contiguous to the Authority's closed Rutrough Road Landfill. The Authority has historically utilized "pump and haul" to dispose of its leachate (wastewater) that is generated at this facility. With the JUP, the Authority constructed a stand-alone lift station and force main that connects to the JUP's sewer line, effectively terminating the Authority's need to pump and haul its leachate. This project has a 2.5 year ROI and will remove tanker trucks from public roads. The JUP construction began in FY 2017 and the Authority's portion was completed in FY 2019. The JUP was completed in its entirety in FY'20 and is operational.

Awards and Acknowledgements

The Government Finance Officers Association (GFOA) of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to RVRA for its comprehensive annual financial report for the fiscal year ended June 30, 2019. This was the eleventh consecutive year that the Authority received this prestigious award. In order to be awarded a Certificate of Achievement, a government 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.

We would like to express our appreciation and gratitude to the personnel at the Authority and in the Department of Finance and Management Services at the County of Roanoke for their dedication and support in producing this report. Appreciation is also extended to the Authority's Board of Directors whose continuing leadership and support is essential to the financial health of the Authority.

Sincerely,

Daniel D. Miles
Chief Executive Officer

Rebecca E. Owens
Treasurer

Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Roanoke Valley Resource Authority
Virginia

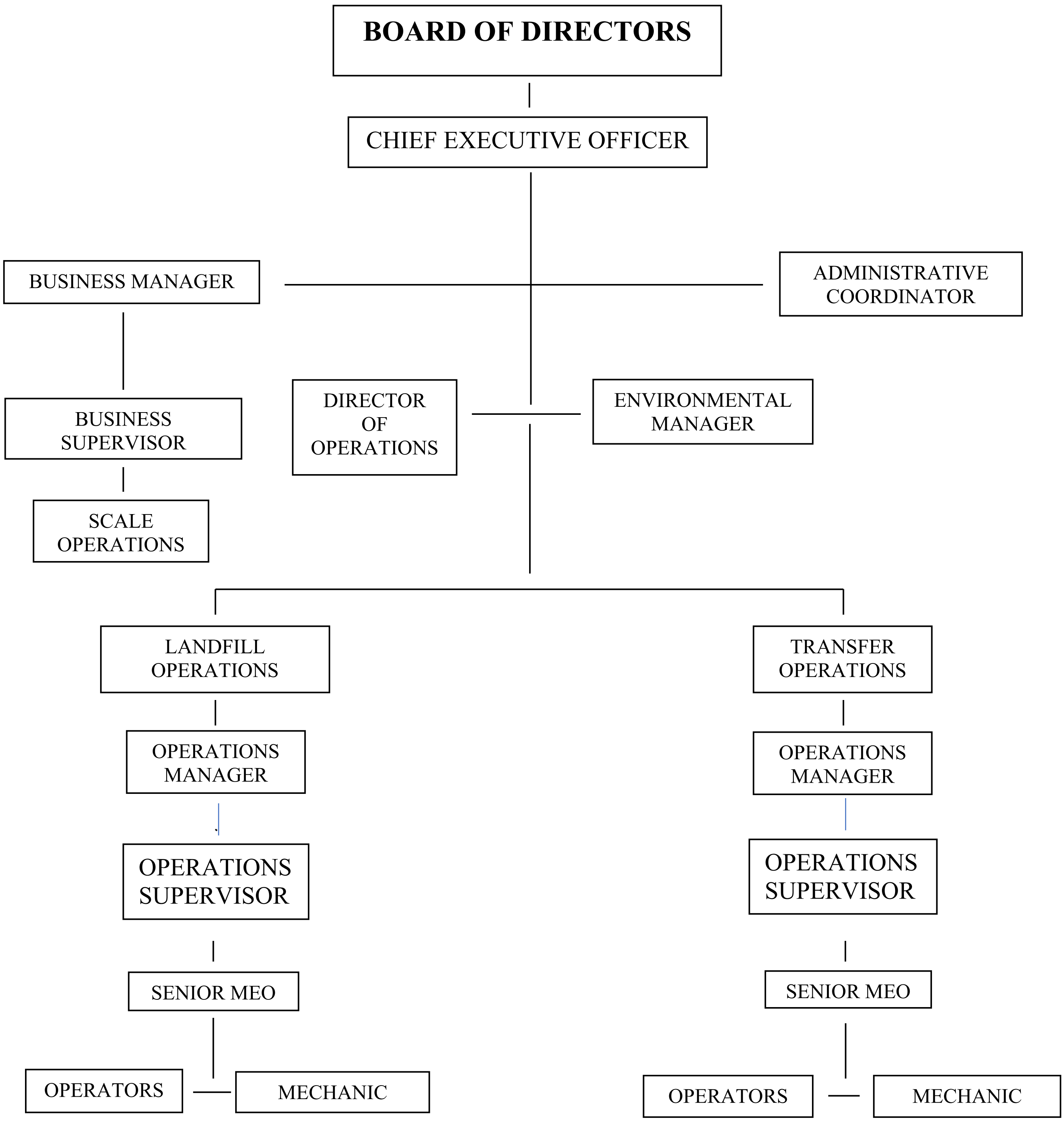
For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morrill

Executive Director/CEO

ROANOKE VALLEY RESOURCE AUTHORITY
ORGANIZATIONAL CHART



ROANOKE VALLEY RESOURCE AUTHORITY

List of Appointed Officials
For the Year Ended June 30, 2020

(A Governmental organization established October 23, 1991
as a tax exempt political subdivision within the Commonwealth of Virginia)

BOARD MEMBERS

Joey Hiner, Chairman

Rob Light, Vice Chair	Rebecca E. Owens, MBA, Treasurer
Broaddus Fitzpatrick	Timothy Martin
Daniel O'Donnell	Jeffrey Powell
Mike Tyler	Daniel Webb

OFFICIALS

Chief Executive Officer	Daniel D. Miles, P.E.
Director of Operations	Steven R. Barger, P.E.
Business Manager	Randall Remington
Business Supervisor	Ollie Tyree
Administrative Coordinator	Peggy Bishop
Environmental/Safety Manager	Edward Hacker
General Counsel	Jim H. Guynn, Jr., Esq.

FINANCIAL SECTION

Independent Auditors' Report

To the Members of the Board
Roanoke Valley Resource Authority
Roanoke, Virginia

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of the Roanoke Valley Resource Authority, as of and for the year ended June 30, 2020, 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 the Roanoke Valley Resource Authority, as of June 30, 2020, 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 12-15 and 51-58 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Roanoke Valley Resource Authority's basic financial statements. The introductory section and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 11, 2020, on our consideration of the Roanoke Valley Resource 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 the Roanoke Valley Resource 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 the Roanoke Valley Resource Authority's internal control over financial reporting and compliance.

Robinson, Farmer, Cox Associates

Blacksburg, Virginia
September 11, 2020

Roanoke Valley Resource Authority
Management's Discussion and Analysis
For the Year Ended June 30, 2020

The management discussion and analysis (MD&A) serves as an introduction to the financial statements of the Roanoke Valley Resource Authority (the Authority) for the year ended June 30, 2020. The MD&A represents management's examination and analysis of the Authority's financial condition and performance and should be read in conjunction with the Authority's basic financial statements which immediately follow this section.

The Management's Discussion and Analysis (MD&A) is an element of the reporting model adopted by the Governmental Accounting Standards Board in their *Statement No. 34 Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments (GASB 34).*

Financial Highlights

- The total assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources as of June 30, 2020 by $9,154,176 (Net Position). Of this amount, $(2,658,908) is classified as unrestricted net position, indicating that no funds were available for discretionary purposes.
- During the year, the Authority's total revenues were $3,730,913 less than the $18,031,103 of expenses.
- The Authority had outstanding debt of $17,977,373 at June 30, 2020.

Overview of the Basic Financial Statements

The Authority's financial report includes three financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows. These statements are prepared in accordance with accounting principles generally accepted in the United States of America as promulgated by the Government Accounting Standards Board (GASB).

The financial statements provide information about the Authority as a whole using the accrual basis of accounting, which is the method used by most private-sector enterprises. In addition to the basic financial statements, the report includes Notes to the Basic Financial Statements and Required Supplemental Information.

- The **Statements of Net Position** reports assets and deferred outflows, liabilities and deferred inflows and the difference between them. The entire equity section is combined to report total Net Position and displayed in three broad components – net investment in capital assets; restricted net position; and unrestricted net position.

- The **Statement of Revenues, Expenses and Changes in Net Position** present the results of the business activities over the course of the fiscal year and information about how Net Position changed during the year. Revenues and expenses are categorized as either operating or non-operating based upon definitions provided by GASB's 33 and 34. Operating revenue consists of tipping fees and recycling fees. Nonoperating revenues consist of net increase in fair value of investments, interest income, gains on disposals of property and equipment and miscellaneous income.

One of the main goals of these two statements is to report the Authority's net position and changes that affected net position during the fiscal year. The change in the Authority's net position is one way to measure the Authority's financial health, or financial position. Increases and decreases in net position are indicators of whether the Authority's financial health is improving or deteriorating. These statements allow readers to answer the question: "Is the Authority's financial position, as a whole, better or worse as a result of the year's activities?" As noted in the financial statements, the

Authority's financial condition deteriorated by $3,730,913 during the fiscal year. This deterioration was largely due to a $980,423 decrease in operating revenues plus an increase in landfill closure and postclosure cost estimates of $1.8 million.

- The **Statement of Cash Flows** presents changes in cash and cash equivalents, resulting from operational, financing, and investing activities. This statement presents cash receipts and cash disbursement information without consideration of the earning event, when an obligation arises, or depreciation of capital assets.

Notes to the basic financial statements - The notes to the basic financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to the basic financial statements can be found beginning on page 22 of this report.

Financial Analysis of the Authority as a Whole

The following comparative condensed Statement of Net Position provides an analysis of the change in financial position from the previous fiscal year.

Statement of Net Position

The following table reflects the condensed Summary of Net Position:

	FY 2020	FY 2019
Current and other assets	$ 16,425,559	$ 19,727,710
Capital assets, net	29,731,631	31,128,589
Total assets	46,157,190	50,856,299
Deferred outflows of resources	849,881	667,627
Current liabilities	1,858,875	2,513,655
Noncurrent liabilities	35,821,675	35,889,795
Total Liabilities	37,680,550	38,403,450
Deferred inflows of resources	172,345	235,387
Net investment in capital assets	11,813,084	13,351,694
Unrestricted	(2,658,908)	(466,605)
Total net position	$ 9,154,176	$ 12,885,089

As noted earlier, net position may serve over time as a useful indicator of the Authority's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $9,154,176 at the close of fiscal year 2020. This is a decrease from last year's Net Position of $12,885,089.

A portion of the Authority's Net Position, 129.05%, reflects its investment in capital assets (e.g. land, buildings, and equipment); less any related debt used to acquire those assets that are outstanding. The Authority uses these capital assets to provide services to customers; consequently, these assets are not available for future spending. The Authority's investment in its capital assets is reported net of related debt, if applicable, and it should be noted that the resources needed to repay any debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

A portion of the Authority's Net Position, (29.05)%, represents resources that are not subject to restrictions on how they may be used. A negative balance indicates that no funds were available for discretionary purposes.

Statement of Revenues, Expenses and Changes in Net Position

The following table shows the revenue and expenses of the Authority:

	FY 2020	FY 2019
Revenues		
Charges for services	$ 14,092,716	$ 15,073,139
Nonoperating Revenues:		
Interest income	207,474	295,546
Gain on sale of capital assets	-	128,514
Total revenues	14,300,190	15,497,199
Expenses		
Operating expense		
Salaries and benefits	(3,409,987)	(3,003,458)
Landfill closure costs	(750,134)	1,006,653
Other operating expenses	(9,487,052)	(9,297,096)
Depreciation	(3,866,112)	(3,772,640)
Non-operating expenses:		
Interest expense	(500,843)	(539,514)
Loss on sale of assets	(16,975)	-
Total expenses	(18,031,103)	(15,606,055)
Change in net position	(3,730,913)	(108,856)
Total net position at beginning of year	12,885,089	12,993,945
Total net position at end of year	$ 9,154,176	$ 12,885,089

The Authority's total revenues decreased over the prior year by 7.72% to $14,300,910 due primarily to reduced tipping fee collections. Tipping fees were 7.00% lower than the prior year. Interest income decreased by 29.80% as a result of lower investment yields. The expenses for all programs and services increased by 15.54% in FY 2020, primarily due to a increase in landfill closure liability resulting from a decrease in available volume related to cell expansions.

Approximately 96.88% of the Authority's Fiscal Year 2020 revenue is from operating revenue consisting of tipping fees and recycling income; 1.67% is miscellaneous consisting primarily of mulch sales and insurance recoveries; 1.45% from non-operating revenue consisting of interest income. Operational expenses for FY 2020 account for 97.13% of total expenses, with remaining expenses from interest expense and loss on sale of assets (2.87%).

Capital Assets

As of June 30, 2020, the Authority had invested $29,731,631, net of accumulated depreciation, in a variety of capital assets including land, landfill development costs, buildings, and equipment. The Authority's investment in capital assets for the current year was $2,498,129. The majority of this investment was composed of the following:

- The completion of Connector Road project to construct a road as an alternative delivery system versus rail-haul transportation.
- (7) Heavy equipment purchases (e.g. skid steer loader, road tractor, forklift, truck scale, Mack Truck, Tarp Deployment System)

Included in this year's investment total is construction in progress related to construction of the Connector Road. The completion of all construction in progress projects decreased activity to a level of $0 in Fiscal Year 2020.

Additional information on the Authority's capital assets can be found in Note 3 in the notes to the financial statements on page 27. Capital assets net of accumulated depreciation are illustrated in the following table:

	FY 2020	FY 2019
Land	$ 5,535,682	$ 5,535,682
Landfill and Rail Access	44,573,338	41,102,839
Transfer Station	13,355,666	13,355,666
Equipment	19,415,198	19,135,965
Construction in progress	-	1,291,503
Subtotal	82,879,884	80,421,655
Accumulated depreciation	(53,148,253)	(49,293,066)
Totals	$ 29,731,631	$ 31,128,589

Long -Term Debt

At June 30, 2020, the Authority had $17,977,373 of bonded debt issues outstanding. This debt was used to support the development of additional capacity due to the 2017 addition of the City of Salem as a member of the Authority. Additional information related to long - term liabilities can be found in Note 4, page 28 in the notes to the basic financial statements.

Factors Influencing Future Budgets

Key factors that are expected to impact future budgets include:

- Uncertainty regarding the economy in relation to the COVID-19 pandemic
- Projected increases in health insurance premiums and retirement contribution rates assessed by the Virginia Retirement System
- Expansion of the open landfill
- Estimated landfill closure costs
- Renewal and replacement needs; costs of plant and equipment
- Closed landfill groundwater monitoring and remediation costs
- Interest rates
- Issuance of debt
- Energy and fuel costs

Requests for Information

This financial report is designed to provide our citizens, taxpayers, customers, potential investors and creditors with a general overview of the Authority's finances and to demonstrate accountability for the resources it receives. If you have questions about this report or need additional financial information, contact the Chief Executive Officer, Roanoke Valley Resource Authority, 1020 Hollins Road, N.E., Roanoke, VA 24012, telephone (540-857-5050), or visit the Authority's web site at www.rvra.net.

Basic Financial Statements

ROANOKE VALLEY RESOURCE AUTHORITY
Statement of Net Position
June 30, 2020

ASSETS		
Current assets:		
Cash and cash equivalents	$	10,224,474
Restricted cash and cash equivalents (note 1)		848,747
Accounts receivable		1,213,570
Interest receivable		3,870
Inventory		362,475
Prepaid items		416
Total current assets	$	12,653,552
Noncurrent assets:		
Investments (note 2)	$	3,772,007
Non-depreciable capital assets (note 3)		5,535,682
Depreciable capital assets, net of accumulated depreciation (note 3)		24,195,949
Total noncurrent assets	$	33,503,638
Total assets	$	46,157,190
DEFERRED OUTFLOWS OF RESOURCES		
Pension related items	$	657,358
OPEB related items		192,523
Total deferred outflows of resources	$	849,881

The accompanying notes are an integral part of the basic financial statements.

ROANOKE VALLEY RESOURCE AUTHORITY

Statement of Net Position

June 30, 2020

LIABILITIES		
Current liabilities:		
Vouchers payable	$	402,948
Accrued payroll		19,720
Accrued interest		143,756
Compensated absences, current portion (note 4)		126,914
Locality compensation payments payable, current portion (note 4)		204,525
Accrued landfill closure, current portion (notes 4 and 9)		134,124
Revenue bonds payable (note 4)		826,888
Total current liabilities	$	1,858,875
Noncurrent liabilities:		
Compensated absences, net of current portion (note 4)	$	197,918
Net OPEB liabilities (notes 4, 6, 7, and 8)		565,323
Net pension liability (notes 4 and 5)		1,698,543
Accrued landfill closure, net of current portion (notes 4 and 9)		15,624,010
Locality compensation payments payable (note 4)		585,396
Revenue bonds payable, net (note 4)		17,150,485
Total noncurrent liabilities	$	35,821,675
Total liabilities	$	37,680,550
DEFERRED INFLOWS OF RESOURCES		
Pension related items	$	131,664
OPEB related items		40,681
Total deferred inflows of resources	$	172,345
NET POSITION		
Net investment in capital assets	$	11,813,084
Unrestricted		(2,658,908)
Total net position	$	9,154,176

The accompanying notes are an integral part of the basic financial statements.

ROANOKE VALLEY RESOURCE AUTHORITY

Statement of Revenues, Expenses and Changes in Net Position

For the Year Ended June 30, 2020

OPERATING REVENUES		
Tipping fees	$	13,774,575
Recycling revenue		79,875
Mulch revenue		58,028
Miscellaneous fees		180,238
Total operating revenues	$	14,092,716
OPERATING EXPENSES		
Salaries and benefits	$	3,409,987
Landfill closure and post closure costs (note 9)		750,134
Other operating expenses		9,487,052
Depreciation		3,866,112
Total operating expenses	$	17,513,285
Operating income (loss)	$	(3,420,569)
NONOPERATING REVENUES (EXPENSES)		
Interest income	$	207,474
Interest expense		(500,843)
Gain (loss) on sale of assets		(16,975)
Total nonoperating revenues (expenses)	$	(310,344)
Change in net position	$	(3,730,913)
Total net position, beginning of year		12,885,089
Total net position, end of year	$	9,154,176

The accompanying notes are an integral part of the basic financial statements.

ROANOKE VALLEY RESOURCE AUTHORITY
Statement of Cash Flows
For Year Ended June 30, 2020

Cash Flows from Operating Activities		
Receipts from customers	$	14,285,711
Payments to suppliers		(9,767,957)
Payments to employees		(3,143,195)
Net cash provided by (used for) operating activities	$	1,374,559
Cash Flows from Capital and Related Financing Activities		
Purchase and construction of capital assets	$	(2,695,785)
Proceeds from sales of capital assets		12,000
Principal paid on locality compensation payments		(208,161)
Principal paid on capital lease		(654,756)
Principal paid on revenue bonds		(805,360)
Interest paid on revenue bonds		(508,151)
Net cash provided by (used for) capital and related financing activities	$	(4,860,213)
Cash Flows from Investing Activities		
Interest income	$	220,623
Proceeds from the sale and maturity of investments		1,256,750
Net cash provided by (used for) investing activities	$	1,477,373
Net increase (decrease) in cash and cash equivalents	$	(2,008,281)
Cash and cash equivalents at the beginning of the year, including restricted amounts		13,081,502
Cash and cash equivalents at the end of the year, including restricted amounts	$	11,073,221
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income (loss)	$	(3,420,569)
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation		3,866,112
Changes in assets, deferred outflows of resources, liabilities and deferred inflows of resources:		
Accounts receivable		192,995
Inventory		(168,808)
Prepaid items		(216)
Deferred outflows of resources		(182,254)
Vouchers payable		20,329
Accrued payroll		355
Compensated absences		38,112
Landfill closure liability		617,924
Net OPEB liabilities		57,117
Net pension liabilities		416,504
Deferred inflows of resources		(63,042)
Net cash provided by (used for) operating activities	$	1,374,559

Noncash items:
Assets with a net book value of $28,975 were sold during the year for $12,000.

The accompanying notes are an integral part of the basic financial statements.

Note 1—Summary of Significant Accounting Policies:

A. Description of Entity

The Roanoke Valley Resource Authority (the Authority) was established on October 23, 1991 as a tax exempt political subdivision within the Commonwealth of Virginia to acquire and construct a regional sanitary landfill and waste collection and transfer station with related treatment facilities. The charter members are the City of Roanoke (the City), County of Roanoke (the County) and the Town of Vinton (the Town).

Prior to October 23, 1991, the operations of the Authority were accounted for as an enterprise fund of the County of Roanoke. As of October 23, 1991, under agreement between the City, the County and the Town, the County transferred all existing assets and liabilities to the Authority.

Under terms of an agreement with the Roanoke Valley Solid Waste Management Board (the Management Board), certain assets and liabilities were transferred to the Authority, effective October 1, 1993. The terms of the agreement call for the Authority to monitor an old landfill site of the Roanoke Valley Regional Solid Waste Management Board during the postclosure care period.

B. Basis of Accounting

The Roanoke Valley Resource 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 services. Operating expenses include the cost of services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

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

C. Deferred Outflows/Inflows or Resources:

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has one item that qualifies for reporting in this category. It is comprised of certain items related to the measurement of the net pension liabilities and net OPEB liabilities and contributions to the pension and OPEB plans made during the current year and subsequent to the net pension liabilities and net OPEB liabilities measurement date. For more detailed information on these items, reference the related notes.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has one type of item that qualifies for reporting in this category. Certain items related to the measurement of the net pension liabilities and net OPEB liabilities are reported as deferred inflows of resources. For more detailed information on these items, reference the related notes.

D. Basic Financial Statements

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

- Management's Discussion and Analysis
- Enterprise fund financial statements
    - Statement of Net Position
    - Statement of Revenues, Expenses, and Changes in Net Position
    - Statement of Cash Flows
    - Notes to the Financial Statements
- Required Supplementary Information
    - Schedules of OPEB and Pension related items

E. Capital Assets

Capital assets are stated at cost or historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets.

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

E. Capital Assets (Continued)

Maintenance, repairs and minor renewals are charged to expense as incurred, while major renewals and replacements are capitalized. Upon the sale or retirement of a capital asset, the cost and related accumulated depreciation, if applicable, are eliminated from the related accounts, and any resulting gain or loss is included in income.

The Authority defines capital assets as assets with an initial individual cost of more than $1,000 and an estimated useful life of at least one year. Assets are depreciated over their estimated useful lives. Equipment, furniture and fixtures are depreciated over three to ten years. Buildings and structures, including the transfer station, are depreciated over 35 years. Landfill and rail access assets are depreciated over fifteen to thirty-five years. Landfill cell development costs are depreciated over the expected life of the cell.

F. Interest on Indebtedness

Interest expense applicable to that portion of indebtedness, the proceeds of which are used to construct new facilities, is capitalized during the period of construction as part of the cost of such facilities. Other interest costs of the Authority are treated as nonoperating expenses. No interest was capitalized during the current or prior fiscal year.

G. Cash and Cash Equivalents

Cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

H. Investments

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

I. Budgets and Budgetary Accounting

A budget is prepared for information, fiscal planning purposes, and to provide the basis for setting user rates. None of the participating entities are required to approve the budget. The budget is adopted as a planning document and is not a legal control on expenses.

J. Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. Primary customers consist of the City of Roanoke, County of Roanoke, Town of Vinton and their respective citizens, and local businesses. Management does not feel that an allowance of balances is necessary so the direct write off method of accounting for uncollectible accounts is used.

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

K. Inventory

Inventory is recorded using the first-in, first-out method (FIFO) and is valued at cost. Inventory consists of parts and supplies utilized in the daily operation of the landfill.

L. Use of Estimates

Management uses estimates and assumptions in preparing its financial statements. Those estimates and assumptions affect certain reported amounts of assets and liabilities, the disclosure of contingent liabilities, and reported revenues and expenses. Actual results could differ from those estimates.

M. Net Position

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

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

Sometimes the Authority will fund outlays for a particular purpose from both restricted (e.g. restricted bond and 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.

N. Long-Term Obligations

Long-term obligations are reported as liabilities in the statement of net position at face value, net of any applicable premiums and discounts.

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

O. Compensated Absences

The liability for compensated absences consists of unpaid accumulated vacation and sick leave balances. The liability is based on the sick leave and the vacation leave accumulated at June 30. Limited vacation and sick leave may be accumulated until retirement or termination. Accumulated sick leave is paid at a fixed daily rate and accumulated vacation is paid at the employee's current wage upon retirement or termination.

P. Accrued Landfill Closure

Accrued landfill closure represents the estimated liability for closure and postclosure costs for the landfill sites. This includes the cost of any equipment and facilities to be installed near or after the date of landfill closure for purposes of closure, the cost of landfill capping, and the cost of monitoring and maintaining the sites during the postclosure period. A total estimate of these expenses is made and updated on a periodic basis and expenses are charged to current period usage of the landfill site. Current cost of landfill closure and postclosure care is an estimate and subject to change resulting from inflation, deflation, technology, or changes in applicable laws or regulations.

Q. Funding Requirements

The City, County and the Town are responsible for their pro rata share, based on population, of any year-end operating deficit or capital expenditures, if additional funding is required. The Authority is responsible for paying all outstanding debt.

R. 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.

S. Other Postemployment Benefits (OPEB)

For purposes of measuring the net VRS related OPEB liabilities, deferred outflows of resources and deferred inflows of resources related to the OPEB, and OPEB expense, information about the fiduciary net position of the VRS GLI OPEB Plan and the additions to/deductions from the VRS OPEB Plans' 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.

U. Restricted Assets

Deposits totaling $848,747 have been restricted by applicable bond agreements for the construction of landfill cell(s), an access road and related items.

Note 2—Deposits and Investments:

Deposits – The County of Roanoke maintains a cash and investment pool that is available for use by all County funds, component units and entities for which the County is the fiscal agent. The Authority participates in this pool and at June 30, 2020, the carrying value of the Authority's deposits with banks and savings institutions was $11,073,221. Deposits with banks are covered by Federal depository insurance and collateralized in accordance with the Virginia Security for Public Deposits Act, Section 2.2-4400 et. seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial Institutions may choose between two collateralization methodologies and depending upon that choice, will pledge collateral that ranges in the amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

Investments – Statutes authorize local governments and other public bodies to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, "prime quality" commercial paper that has received at least two of the following ratings: P-1 by Moody's Investors Service, Inc.; A-1 by Standard and Poor's; or F1 by Fitch Ratings, Inc. (Section 2.2-4502), bankers' acceptances, repurchase agreements, and the State Treasurer's Local Government Investment Pool (LGIP).

Information related to the County of Roanoke pooled account is presented in the audited financial statements of the County of Roanoke and can be obtained from the Director of Finance and Management Services, County of Roanoke, 5204 Bernard Drive, Suite 300E, Roanoke, Virginia 24018; telephone 540-772-2020 or visit the County's web site at www.roanokecountyva.gov.

Custodial Credit Risk (Investments)

The Authority's investment policy provides that securities purchased for the Authority shall be held by the Authority Treasurer or by the Treasurer's custodian. If held by a custodian, the securities must be in the Authority's name or in the custodian's name and identifiable on the custodian's books as belonging to the Authority. Further, if held by a custodian, the custodian must be a third party, not a counterparty (buyer or seller) to the transaction. At June 30, 2020, all of the Authority's investments were held in accordance with this policy.

Note 2—Deposits and Investments: (Continued)

Credit Risk of Debt Securities

The Authority's investment policy for credit risk is consistent with the investments allowed by statute as detailed above.

The Authority's debt investments as of June 30, 2020 have not been rated as noted below.

Authority's Rated Debt Investments' Values

Rated Debt Investments		Fair Quality Ratings Not rated
Roanoke County Treasurer's		
Investment Pool	$	3,772,007
Total	$	3,772,007

The Roanoke County Investment Pool is not rated; however, underlying investments in the pool are rated. Those ratings along with additional information concerning the pool are presented in the Roanoke County, Virginia Comprehensive Annual Financial Report, a copy of which may be requested from: County of Roanoke, 5204 Bernard Drive, Suite 300E, Roanoke, Virginia 24018; telephone 540-772-2020 or by visiting the County's web site at www.roanokecountyva.gov.

Interest Rate Risk

The Authority's policy with regard to interest rate risk requires that all investments mature within five years of their purchase date. The policy further requires maturity scheduling be timed to anticipated need and scheduled to coincide with projected cash flow needs. All funds shall be considered short-term except those reserved for capital projects. Investment maturities presented below are based on the maturity dates for individual investments held within the pool as allocated based on the Authority's percentage of funds invested in the pool.

Investment Maturities (in years)

Investment Type		Fair Value		1 Year		1-5 Years
Roanoke County Investment Pool	$	3,772,007	$	-	$	3,772,007
Totals	$	3,772,007	$	-	$	3,772,007

Note 2—Deposits and Investments: (Continued)

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Authority has measured fair value of the investments, as reported in Note 2, at the net asset value (NAV). As the Roanoke County Investment Pool is not SEC registered, regulatory oversight of the pool rests with the Roanoke County Board of Supervisors.

Redemption Restrictions

Currently, the County of Roanoke does not impose any redemption restrictions on the Authority.

Note 3—Capital Assets:

Capital asset activity for the year ended June 30, 2020 was as follows:

	Balance July 1, 2019	Increases	Decreases	Balance June 30, 2020
Capital assets not being depreciated:				
Land	$ 5,535,682	$ -	$ -	$ 5,535,682
Construction in Progress	1,291,503	1,694,178	(2,985,681)	-
Total capital assets not being depreciated	$ 6,827,185	$ 1,694,178	$ (2,985,681)	$ 5,535,682
Capital assets being depreciated:				
Landfill and Rail Access	$ 41,102,839	$ 3,470,499	$ -	$ 44,573,338
Transfer Station (Building and Structure)	13,355,666	-	-	13,355,666
Equipment	19,135,965	319,133	(39,900)	19,415,198
Total capital assets being depreciated	$ 73,594,470	$ 3,789,632	$ (39,900)	$ 77,344,202
Accumulated depreciation:				
Landfill and Rail Access	$ (33,797,505)	$ (1,444,994)	$ -	$ (35,242,499)
Transfer Station (Building and Structure)	(5,438,881)	(419,473)	-	(5,858,354)
Equipment	(10,056,680)	(2,001,645)	10,925	(12,047,400)
Total accumulated depreciation	$ (49,293,066)	$ (3,866,112)	$ 10,925	$ (53,148,253)
Total capital assets being depreciated, net	$ 24,301,404	$ (76,480)	$ (28,975)	$ 24,195,949
Total capital assets, net	$ 31,128,589	$ 1,617,698	$ (3,014,656)	$ 29,731,631

Prior year additions included construction payables of $197,656. There were no current year construction payables.

Note 4—Long-Term Liabilities:

Changes in long-term liabilities for the year are as follows:

	Balance July 1, 2019	Additions	Reductions	Balance June 30, 2020	Due Within One Year
Direct Borrowings -					
Revenue Bonds	$ 18,782,733	$ -	$ (805,360)	$ 17,977,373	$ 826,888
Locality Compensation Payments	998,082	-	(208,161)	789,921	204,525
Capital Lease	654,756	-	(654,756)	-	-
Compensated Absences	286,720	128,465	(90,353)	324,832	126,914
Accrued Landfill Closure and Postclosure (Note 9)	15,140,210	862,786	(244,862)	15,758,134	134,124
Net OPEB Liabilities	508,206	91,788	(34,671)	565,323	-
Net Pension Liability	1,282,039	1,300,232	(883,728)	1,698,543	-
	$ 37,652,746	$ 2,383,271	$ (2,921,891)	$ 37,114,126	$ 1,292,451

All liabilities are liquidated by operating funds.

Details of the Authority's outstanding long-term liabilities at June 30, 2020 are as follows:

Type	Interest Rates	Installment Amounts	Final Maturity Date	Amount of Original Issue	Balance Due	Amount Due Within One Year
Direct Borrowings						
Revenue Bonds (1)						
Solid Waste Revenue Bond Series 2017A	2.50%	$42,925-$69,025 (a+)	7/15/2037	$ 1,100,000	$ 967,938	$ 46,268
Solid Waste Revenue Bond Series 2017B	2.65%(v)	$340,000-$565,000 (a+)	7/15/2037	8,900,000	8,210,000	360,000
Solid Waste Revenue Bond Series 2016	2.50%	$390,226-$627,504 (a+)	11/1/2036	10,000,000	8,799,435	420,620
Total Revenue Bonds					$ 17,977,373	$ 826,888
Locality Compensation Payments:						
City of Salem 2011 Bond	2.14%	$189,981-$219,069 (a+)	10/1/2023	1,644,381	$ 789,921	$ 204,525
Other Long-Term Obligations:						
Compensated absences					$ 324,832	$ 126,914
Accrued landfill closure liability					15,758,134	134,124
Net OPEB liabilities					565,323	-
Net pension liability					1,698,543	-
Total Other Long-Term Obligations					$ 18,346,832	$ 261,038
Total Long-Term Liabilities					$ 37,114,126	$ 1,292,451

1. The Authority failed to maintain a debt service coverage ratio of 1.0 as required by their revenue bonds for the 2020 fiscal year.

(a+)-annual principal installments shown, does not include semi-annual interest installments

(v) - Interest rate to be adjusted on July 15, 2027 to each five year Treasury rate plus 0.25%

City of Salem Bond was issued to purchase the Salem solid waste facilities and equipment. Solid Waste Revenue Bonds were issued for the construction of a landfill, transfer station, and related equipment.

Note 4—Long-Term Liabilities: (Continued)

Annual requirements to amortize long-term obligations and the related interest are as follows:

Year Ending June 30	Direct Borrowings - Revenue Bonds Principal	Direct Borrowings - Revenue Bonds Interest	Direct Borrowing - Locality Compensation Payments Principal	Direct Borrowing - Locality Compensation Payments Interest
2021	$ 826,888	$ 346,408	$ 204,525	$ 14,716
2022	848,708	429,651	199,980	10,388
2023	870,827	407,594	195,435	6,157
2024	893,253	384,966	189,981	2,033
2025	915,994	361,757	-	-
2026-2030	4,957,657	1,438,686	-	-
2031-2035	5,638,184	759,831	-	-
2036-2038	3,025,862	108,838	-	-
Total	$ 17,977,373	$ 4,237,731	$ 789,921	$ 33,294

Note 5—Pension Plan:

Plan Description

All full-time, salaried permanent employees of the Roanoke Valley Resource Authority are automatically covered by the Roanoke County Pension Plan. This is a cost-sharing 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 pays contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the Code of Virginia, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

Benefit Structures

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

a. Employees hired before July 1, 2010, vested as of January 1, 2013, and have not taken a refund, are covered under Plan 1, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced retirement benefit beginning at age 65 with at least 5 years of service credit or age 50 with at least 30 years of service credit. Non-hazardous duty employees may retire with a reduced benefit as early as age 55 with at least 5 years of service credit or age 50 with at least 10 years of service credit.

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

Note 5—Pension Plan: (Continued)

Benefit Structures (Continued)

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

Average Final Compensation and Service Retirement Multiplier

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

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

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

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.

Note 5—Pension Plan: (Continued)

Contributions (Continued)

The Roanoke Valley Resource Authority's contractually required employer contribution rate for the year ended June 30, 2020 was 12.32% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Roanoke Valley Resource Authority were $246,754 and $231,403 for the years ended June 30, 2020 and June 30, 2019, respectively.

Net Pension Liability

At June 30, 2020, the Authority reported a liability of $1,698,543 for its proportionate share of the net pension liability. The Roanoke Valley Resource Authority's net pension liability was measured as of June 30, 2019. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2018 and rolled forward to the measurement date of June 30, 2019. The Authority's proportionate share of same was calculated using the average creditable compensation as of June 30, 2019 and 2018 as a basis for allocation. At June 30, 2019 and 2018, the Authority's proportion was 3.9322% and 3.8000%, respectively.

Actuarial Assumptions – General Employees

The total pension liability for employees in the Roanoke Valley Resource Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019.

Inflation	2.50%
Salary increases, including inflation	3.50% – 5.35%
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation*

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

Note 5—Pension Plan: (Continued)

Actuarial Assumptions – General Employees (Continued)

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

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

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

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

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

Note 5—Pension Plan: (Continued)

Long-Term Expected Rate of Return

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

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

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

Note 5—Pension Plan: (Continued)

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Roanoke Valley Resource Authority was also provided with an opportunity to use an alternative employer contribution rate. For the year ended June 30, 2019, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017 actuarial valuations, whichever was greater. From July 1, 2019 on, participating employers are assumed to 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.

Sensitivity of the Roanoke Valley Resource Authority's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

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

		Rate	
	1% Decrease	Current Discount	1% Increase
	(5.75%)	(6.75%)	(7.75%)
Roanoke Valley Resource Authority Net Pension Liability (Asset)	$ 3,087,297	$ 1,698,543	$ 591,200

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

For the year ended June 30, 2020, the Roanoke Valley Resource Authority's recognized pension expense of $418,356. Since there was a change in proportionate share between measurement dates, a portion of the pension expense was related to deferred amounts from changes in proportion and from differences between employer contributions and the proportionate share of employer contributions.

Note 5—Pension Plan: (Continued)

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

At June 30, 2020, the Roanoke Valley Resource 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	$ 37,265	$ 48,256
Changes in assumptions	217,271	3,164
Changes in proportion and differences between contributions and proportionate share of contributions	156,068	-
Net difference between projected and actual earnings on pension plan investments	-	80,244
Contributions subsequent to the measurement date	246,754	-
Totals	$ 657,358	$ 131,664

$246,754 reported as deferred outflows of resources related to pensions resulting from the Roanoke Valley Resource Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

Year Ended June 30	
2021	$ 165,001
2022	52,906
2023	55,804
2024	5,229
2025	-
Thereafter	-
Total	$ 278,940

Pension Plan Data

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

Note 6—Aggregate Other Postemployment Benefits Information:

The following is a summary of deferred outflows, deferred inflows, net other postemployment benefits liabilities, and other postemployment benefits expense for the year ended June 30, 2020.

	Deferred Outflows	Deferred Inflows	Net OPEB Liability	OPEB Expense
Authority Stand-Alone Plan	$ 144,472	$ 28,891	$ 406,327	$ 70,852
VRS OPEB Plan-Group Life Insurance Plan	48,051	11,790	158,996	3,671
Totals	$ 192,523	$ 40,681	$ 565,323	$ 74,523

Note 7—Roanoke Valley Resource Authority Other Postemployment Benefits:

Plan Description

In addition to the pension benefits described in Note 5, the Authority administers a single-employer defined benefit healthcare plan, The Roanoke Valley Resource Authority Postretirement Benefits Plan. The Plan provides for participation by eligible retirees and their dependents in the health insurance programs available to employees. The Plan does not issue publicly available financial reports.

Benefits Provided

The Plan will provide retiring employees the option to continue health insurance offered by the Authority. Employees are eligible for the program after ten (10) years of service to the Authority. The benefits, employee contributions, and the employer contributions are governed by the Authority's Board and can be amended through Board action.

Plan Membership

At June 30, 2019 (measurement date), the following employees were covered by the benefit terms:

Total active employees with coverage	25
Total active employees without coverage	11
Total	36

Contributions

The Authority does not pre-fund benefits; therefore, no assets are accumulated in a trust fund. The current funding policy is to pay benefits directly from general assets on a pay-as-you-go basis. The funding requirements are established and may be amended by the Authority's Board. The amount paid by the Authority for OPEB as the benefits came due during the year ended June 30, 2020 was $14,730.

Note 7—Roanoke Valley Resource Authority Other Postemployment Benefits: (Continued)

Total OPEB Liability

The Authority's total OPEB liability was measured as of June 30, 2019. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation performed as of June 30, 2018, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019.

Actuarial Assumptions

The total OPEB liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Healthcare cost trend rate	Graded down from 7.8% to 5% over 10 years beginning in 2018.
Salary Increases	2.00% per annum
Discount Rate	2.98% per annum

Mortality rates were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.

The date of the most recent actuarial experience study for which significant assumptions were based is not available.

Significant changes to the actuarial assumptions include:

1. The percentage of future eligible retirees electing medical coverage was updated from 64.6% to 61.4%.

2. The percentage of future eligible retirees electing medical coverage for a spouse was updated from 29.8% to 27.5%.

3. The mortality, disability, withdrawal, and retirement assumptions were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.

4. Actives hired on or after July 1, 2016 are not eligible for the plan.

Discount Rate

The discount rate is 2.98% per annum.

Note 7—Roanoke Valley Resource Authority Other Postemployment Benefits: (Continued)

Changes in Total OPEB Liability

		Total OPEB Liability
Balances at June 30, 2018	$	362,970
Changes for the year:		
Service cost	$	35,740
Interest		11,758
Contributions - employer		(4,141)
Net changes	$	43,357
Balances at June 30, 2019	$	406,327

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

The following amounts present the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (1.98%) or one percentage point higher (3.98%) than the current discount rate:

Rate		
1% Decrease	Current Discount	1% Increase
(1.98%)	(2.98%)	(3.98%)
$ 439,862	$ 406,327	$ 375,152

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.50% decreasing to 4.00% over 10 years) or one percentage point higher (8.50% decreasing to 6.00% over 10 years) than the current healthcare cost trend rates:

Healthcare Cost Trend Rate		
1% Decrease	Current Discount	1% Increase
(6.5% decreasing to 4% over 10 years)	to 5% over 10 years)	to 6% over 10 years)
$ 355,178	$ 406,327	$ 468,348

Note 7—Roanoke Valley Resource Authority Other Postemployment Benefits: (Continued)

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources

For the year ended June 30, 2020, the Authority recognized OPEB expense in the amount of $70,852. At June 30, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resouces	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 28,891
Changes in assumptions	129,742	-
Employer contributions subsequent to the measurement date	14,730	-
Total	$ 144,472	$ 28,891

$14,730 reported as deferred outflows of resources related to OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the fiscal year ending June 30, 2021. Amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense in future reporting periods as follows:

Year Ended June 30	
2021	$ 23,354
2022	23,354
2023	27,071
2024	27,072
Thereafter	-

Additional disclosures on changes in net OPEB liability, related ratios, and employer contributions can be found in the required supplementary information following the notes to the financial statements.

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan):

Plan Description

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

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Plan Description (Continued)

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

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

Eligible Employees

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

Benefit Amounts

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

Contributions

The contribution requirements for the GLI Plan are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Plan was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% x 60%) and the employer component was 0.52% (1.31% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2020 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the GLI Plan from the entity were $26,326 and $24,628 for the years ended June 30, 2020 and June 30, 2019, respectively.

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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

At June 30, 2020, the entity reported a liability of $158,996 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2019 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2018, and rolled forward to the measurement date of June 30, 2019. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Plan for the year ended June 30, 2019 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2019, the participating employer's proportion was 0.00098% as compared to 0.00956% at June 30, 2018.

For the year ended June 30, 2020, the participating employer recognized GLI OPEB expense of $3,671. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,574	$ 2,062
Net difference between projected and actual earnings on GLI OPEB plan investments	-	3,266
Change in assumptions	10,038	4,794
Changes in proportion	1,113	1,668
Employer contributions subsequent to the measurement date	26,326	-
Total	$ 48,051	$ 11,790

$26,326 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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

Year Ended June 30		
2021	$	559
2022		560
2023		1,943
2024		3,079
2025		2,986
Thereafter		808

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019. The assumptions include several employer groups as noted below. Salary increases and mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS CAFR.

Inflation	2.50%
Salary increases, including inflation:	
Teachers	3.50%-5.95%
Locality - General employees	3.50%-5.35%
Locality - Hazardous Duty employees	3.50%-4.75%
Investment rate of return	6.75%, net of investment expenses, including inflation*

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

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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

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

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

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

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

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

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 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Actuarial Assumptions (Continued)

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

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	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 60.00% to 45.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

NET GLI OPEB Liability

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

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

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.

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Long-Term Expected Rate of Return

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

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

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

Note 8—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Discount Rate

The discount rate used to measure the total GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ended June 30, 2019, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly which was 100% of the actuarially determined contribution rate. From July 1, 2019 on, employers are assumed to 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 6.75%, as well as what the employer's proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

		Rate	
	1% Decrease	**Current Discount**	**1% Increase**
	(5.75%)	**(6.75%)**	**(7.75%)**
Authority's proportionate share of the GLI Plan Net OPEB Liability	$ 208,876	$ 158,996	$ 118,544

GLI Plan Fiduciary Net Position

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

Note 9—Accrued Landfill Closure:

The Authority currently has responsibility for closure and postclosure care related to two landfill sites and two transfer stations. The landfills include the old landfill site, formerly owned by the Roanoke Valley Regional Solid Waste Management Board, which closed in 1994 and the new Smith Gap landfill placed in service during 1994. The new landfill has a permitted life of approximately 50 years and remaining life of approximately 37 years. State and Federal laws and regulations require that the Authority place a final cover on its landfills when closed and perform certain maintenance and monitoring functions for a minimum of thirty years after closure.

Note 9—Accrued Landfill Closure: (Continued)

Closure costs will be paid as closure occurs and postclosure care costs will be paid only near or after the date that the landfills stop accepting waste. The Authority reports a portion of these closure and postclosure care costs as an operating expense in each period based on the landfill capacity of the existing cells used to date (90.14%) of the constructed cells at June 30, 2020 for the Smith Gap landfill and includes anticipated effects of changes in regulations and cost estimates. The total liability recorded at June 30, 2020, is $15,758,134 and includes $2,988,115 designated for the old landfill site (now closed); $12,367,753 designated for the new Smith Gap landfill; and $402,266 for the transfer stations. Total closure and postclosure cost for all opened landfill cells at Smith Gap is estimated at $13,720,599, of which 90.14% has been recognized as noted above based on usage. As such, $1,352,806 or 9.86% of the total estimated liability will be recognized in future periods as the usage percentage increases at the Smith Gap Landfill. The Old Landfill and Transfer Station estimates are recorded at 100% of their total liability estimates.

The Authority will periodically update these closure and postclosure cost estimates and, as necessary, make revisions to reflect any significant changes in estimates due to inflation or deflation, technology, or changes in applicable laws and regulations.

Closure and postclosure care requirements are mandated under the United States Environmental Protection Agency (EPA) rule, “Solid Waste Disposal Facility Criteria”, and are subject to periodic revisions by the EPA.

Federal and state regulations require owners of municipal solid waste landfills to demonstrate financial responsibility for closure care, postclosure care and corrective costs arising from the operations of such facilities. The Authority has demonstrated financial assurance requirements for closure and postclosure care through the submission of a Local Government Financial Test to the Virginia Department of Environmental Quality in accordance with Section 9VAC20-70 of the Virginia Administrative Code.

Note 10—Commitments, Contingencies, and Other Information:

Under terms of a five year transportation contract that commenced on July 1, 2018, a rail carrier will haul waste for a predetermined transportation charge to be adjusted on an annual basis from 3.25% to 10%. The contract provides the Authority with the sole option to cancel the contract at the end of each fiscal year. Upon cancellation, the Authority is required to pay a cancellation fee of up to $2,500,000. Expenditures under this contract were approximately $2,996,909 for the year ended June 30, 2020.

From time to time the Authority is involved in litigation in the normal course of operations. It is the opinion of the Authority’s management that any adverse outcomes related to litigation would not have a material impact on the financial position or results of operations of the Authority as of and for the year ended June 30, 2020.

Note 11—Arbitrage Rebate Compliance:

As of June 30, 2020 and for the year then ended, the Authority was not liable for any amounts due under current rules governing arbitrage earnings.

Note 12—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 others; and natural disasters. The Authority participates with other localities in the Virginia Municipal Group Self Insurance public entity risk pool and the Virginia Association of Counties Risk Pool for certain coverage noted below. Each member of these risk pools jointly and severally agrees to assume, pay and discharge any liability. The Authority pays the risk pools contributions and assessments based upon classifications and rates into designated cash reserve funds out of which expenses of the pools, claims and awards are to be paid. In the event of a loss, deficit, or depletion of all available funds and/or excess insurance, each pool may assess all members in the proportion to which the premium of each bears to the total premiums of all members in the year in which such deficit occurs. The Authority carries insurance coverage for all other risk of loss. Settled claims have not exceeded coverage in the current or prior three fiscal years.

Worker's Compensation – Worker's Compensation Insurance is provided through the Virginia Risk Sharing Association. During 2019-2020, the total premiums paid were $85,711. Benefits are those afforded through the State of Virginia as outlined in the Code of Virginia Section 65.2-100; premiums are based upon covered payroll, job rates and claims experience.

General Liability and Other - The Authority carries general liability, machinery, property and other insurance through policies administered by the Virginia Risk Sharing Association. General liability and business automobile have a $1,000,000 combined single limit. Machinery coverage and property insurance are covered as per statement of values. Public officials' liability with a $1,000,000 limit is covered through a policy with the Commonwealth of Virginia. Total premiums paid for year ended June 30, 2020 were $57,014.

Healthcare - Healthcare insurance coverage is provided to Authority employees through Roanoke County's self-insured health insurance program. The Authority's employees pay a monthly amount based upon estimates from the claims processor that should cover administrative expenses, stop loss insurance premiums, and claims. An excess coverage insurance policy covers each individual's pooled claims in excess of $200,000. The Authority has no claims payable as of June 30, 2020.

Note 13—Related Party Transactions:

The following table summarizes approximate tipping fees received and accounts receivable from charter members as of and for the year ended June 30, 2020:

	Tipping Fees 2020	Accounts Receivable 2020
City of Roanoke	$ 2,416,659	$ 249,904
County of Roanoke	2,200,431	214,970
City of Salem	876,461	34,878
Town of Vinton	192,856	18,856
	$ 5,686,407	$ 518,608

Note 14—Subsequent Event:

On January 30, 2020, the World Health Organization ("WHO") announced a global health emergency because of a new strain of coronavirus (the "COVID-19 outbreak") and the risks to the international community as the virus spreads globally beyond its point of origin. In March 2020, the WHO classified the COVID-19 outbreak as a pandemic based on the rapid increase in exposure globally.

The full impact of the COVID-19 outbreak continues to evolve as of the release date of this report. As such, the full magnitude that the pandemic will have on the Authority's financial condition, liquidity, and future results of operations is uncertain. Management is monitoring the global situation and impact that it may have on its financial condition, liquidity, operations, suppliers, industry, and workforce. Given the daily evolution of the COVID-19 outbreak and global responses to curb its spread, the Authority is not able to estimate the effects of the COVID-19 outbreak on its results of operations, financial condition, or liquidity for fiscal year 2021.

Note 15— Upcoming 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, 2019.

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

Statement No. 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, 2019.

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, 2021.

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

Note 15— Upcoming Pronouncements: (Continued)

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

Statement No. 94, *Public-Private and Public-Public Partnerships and Availability of Payment Arrangements*, addresses issues related to public-private and public-public partnership arrangements. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITAs)*, (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code (IRC) Section 457 Deferred Compensation Plans – an Amendment of GASB Statements No. 14 and No. 84, and a Supersession of GASB Statement. No 32,* (1) increases consistency and comparability related to reporting of fiduciary component units in certain circumstances; (2) mitigates costs associated with the reporting of certain plans as fiduciary component units in fiduciary fund financial statements; and (3) enhances the relevance, consistency, and comparability of the accounting and financial reporting for Section 457 plans that meet the definition of a pension plan and for benefits provided through those plans. The effective dates differ based on the requirements of the Statement, ranging from June 2020 to reporting periods beginning after June 15, 2021.

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

Required Supplementary Information

ROANOKE VALLEY RESOURCE AUTHORITY

Schedule of the Authority's Proportionate Share of the Net Pension Liability - Pension Plan

For the Measurement Dates of June 30, 2014 through June 30, 2019

Roanoke County, Virginia's Pension Plan (a cost-sharing multiple employer plan administered by the VRS)

Date	Proportion of the Net Pension Liability (NPL)	Proportionate Share of the NPL	Covered Employee Payroll	Proportionate Share of the NPL as a Percentage of Covered Payroll (3)/(4)	Pension Plan's Fiduciary Net Position as a Percentage of Total Pension Liability
(1)	(2)	(3)	(4)	(5)	(6)
2019	3.9322%	$ 1,698,543	$ 1,979,670	85.80%	83.96%
2018	3.8000%	1,282,039	1,860,564	68.91%	86.53%
2017	3.5259%	1,308,197	1,630,826	80.22%	84.76%
2016	2.8980%	1,324,942	1,262,032	104.98%	80.43%
2015	2.7704%	970,264	1,178,061	82.36%	84.31%
2014	2.7738%	923,522	1,117,882	82.61%	84.61%

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

ROANOKE VALLEY RESOURCE AUTHORITY

Schedule of Employer Contributions - Pension Plan

For the Years Ended June 30, 2011 through June 30, 2020

Roanoke County, Virginia's Pension Plan (a cost-sharing multiple employer plan administered by the VRS)

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contributions Deficiency (Excess) (1) - (2)	Employer's Covered Payroll	Contributions as a % of Covered Payroll (2)/(4)
	(1)	(2)	(3)	(4)	(5)
2020	$ 246,754	$ 246,754	$ -	$ 2,188,818	11.27%
2019	231,403	231,403	-	1,979,670	11.69%
2018	200,782	200,782	-	1,860,564	10.79%
2017	181,460	181,460	-	1,630,826	11.13%
2016	142,146	142,146	-	1,262,032	11.26%
2015	132,238	132,238	-	1,178,061	11.23%
2014	112,745	112,745	-	1,117,882	10.09%
2013	112,591	112,591	-	1,139,043	9.88%
2012	114,847	114,847	-	763,103	15.05%
2011	149,643	149,643	-	994,306	15.05%

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

Roanoke County, Virginia's Pension Plan (a cost-sharing multiple employer plan administered by the VRS)

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

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

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

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

ROANOKE VALLEY RESOURCE AUTHORITY

Schedule of Changes in Net OPEB Liability and Related Ratios

Post Employment Health Coverage

For the Measurement Dates of June 30, 2017 through June 30, 2019

		2019		2018		2017
Total OPEB liability						
Service cost	$	35,740	$	17,674	$	16,832
Interest		11,758		5,803		6,048
Differences between expected and actual experience		-		(32,187)		(18,585)
Changes of assumptions		-		194,614		-
Benefit payments		(4,141)		(3,611)		(4,642)
Net change in total OPEB liability	$	43,357	$	182,293	$	(347)
Total OPEB liability - beginning		362,970		180,677		181,024
Total OPEB liability - ending (a)	$	406,327	$	362,970	$	180,677
Covered payroll	$	1,292,095	$	1,266,760	$	1,258,150
Authority's net OPEB liability (asset) as a percentage of covered payroll		31.45%		28.65%		14.36%

Schedule is intended to show information for 10 years. Additional years will be included as they become available.

Valuation Date:	6/30/2018
Measurement Date:	6/30/2019

No assets are accumulated in a trust that meets the criteria in GASB 75 to pay related benefits.

Methods and assumptions used to determine OPEB liability:

Actuarial Cost Method	Entry age normal level % of salary
Discount Rate	2.98% per annum
Inflation	Not applicable
Healthcare Trend Rate	Graded down from 7.5% to 5% over 10 years beginning in 2018.
Salary Increase Rates	2.00% per annum
Retirement Age	The average age at retirement is 60.
Mortality Rates	The mortality rates were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.

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

Date (1)	Employer's Proportion of the Net GLI OPEB Liability (2)	Employer's Proportionate Share of the Net GLI OPEB Liability (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the Net GLI OPEB Liability as a Percentage of Covered Payroll (3)/(4) (5)	Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability (6)
2019	0.00098%	$ 158,996	$ 1,979,670	8.03%	52.00%
2018	0.00956%	145,236	1,860,564	7.81%	51.22%
2017	0.00883%	132,892	1,630,826	8.15%	48.86%

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

ROANOKE VALLEY RESOURCE AUTHORITY
Schedule of Employer Contributions
Group Life Insurance (GLI) Plan
For the Years Ended June 30, 2017 through June 30, 2020

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contributions Deficiency (Excess) (1) - (2)	Employer's Covered Payroll	Contributions as a % of Covered Payroll (2)/(4)
	(1)	(2)	(3)	(4)	(5)
2020	$ 26,326	$ 26,326	$ -	$ 2,188,818	1.20%
2019	24,628	24,628	-	1,979,670	1.24%
2018	23,523	23,523	-	1,860,564	1.26%
2017	21,339	21,339	-	1,630,826	1.31%

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

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

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

Non-Largest Ten Locality Employers - General Employees

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

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 60.00% to 45.00%
Discount Rate	Decreased rate from 7.00% to 6.75%

STATISTICAL SECTION

Statistical Section

This part of the Roanoke Valley Resource Authority's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Authority's overall financial health.

Contents

Financial Trends

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These schedules contain trend information to help the reader understand how the Authority's financial performance and well-being have changed over time. 59-60

Revenue Capacity

These schedules contain information to help the reader assess the factors affecting the Authority's ability to generate its operating revenue. 61-66

Debt Capacity

These schedules contain information to help the reader assess the affordability of the Authority's current levels of outstanding debt and the Authority's ability to issue additional debt in the future. 67-68

Demographic and Economic Information

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Authority's financial activities take place and to help make comparisons over time and with other authorities. 69-70

Operating Information

These schedules contain information about the Authority's operations and resources to help the reader understand how the Authority's financial information relates to the services the Authority provides and the activities it performs. 71-72

Table 1

ROANOKE VALLEY RESOURCE AUTHORITY
Net Position by Component
Last Ten Fiscal Years
(unaudited)
(accrual basis of accounting)

	Fiscal Year									
	2020	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Net investment in capital assets	$ 11,813,084	$ 13,351,694	$ 14,261,988	$ 18,957,557	$ 16,137,093	$ 20,016,507	$ 20,859,509	$ 22,126,898	$ 23,579,296	$ 24,601,591
Restricted	-	-	-	-	-	-	-	-	-	1,091,000
Unrestricted	(2,658,908)	(466,605)	(1,268,043)	(3,116,266)	1,450,628	756,182	2,159,326	2,087,537	3,028,633	965,985
Total primary government net position	$ 9,154,176	$ 12,885,089	$ 12,993,945	$ 15,841,291	$ 17,587,721	$ 20,772,689	$ 23,018,835	$ 24,214,435	$ 26,607,929	$ 26,658,576

The Authority implemented provisions of GASB Statements 63 and 65 during the 2013 fiscal year, and applied all changes required thereof retroactively to statistical information, as necessary.

The Authority implemented provisions of GASB Statement 68 during the 2015 fiscal year and restated beginning net position accordingly. Information relative to GASB Statement 68 was not available for prior fiscal years and therefore provisions of this statement were not applied retroactively in this table.

The Authority implemented provisions of GASB Statement 75 during the 2018 fiscal year and restated beginning net position for 2018 and 2017, accordingly. Information relative to GASB Statement 75 was not available for fiscal years prior to fiscal year 2017 and therefore provisions of this statement were not applied retroactively in this table.

Source: RVRA audited financial statements

Table 2

ROANOKE VALLEY RESOURCE AUTHORITY

Changes in Net Position
Last Ten Fiscal Years
(unaudited)
(accrual basis of accounting)

Fiscal Year	Operating Revenues	Operating Expenses	Operating Income (Loss)	Total Nonoperating Revenues/ (Expenses)	Income/(Loss) before Special Items	Special Items	Change in Net Position
2020	$ 14,092,716	$ 17,513,285	$ (3,420,569)	$ (310,344)	$ (3,730,913)	$ -	$ (3,730,913)
2019	15,073,139	15,066,541	6,598	(115,454)	(108,856)	-	(108,856)
2018	13,718,403	16,150,782	(2,432,379)	(414,967)	(2,847,346)	-	(2,847,346)
2017	12,011,736	13,134,353	(1,122,617)	11,043	(1,111,574)	(634,856)	(1,746,430)
2016	8,743,169	12,034,820	(3,291,651)	106,683	(3,184,968)	-	(3,184,968)
2015	8,434,037	9,455,022	(1,020,985)	69,368	(951,617)	-	(951,617)
2014	8,125,576	9,680,144	(1,554,568)	358,968	(1,195,600)	-	(1,195,600)
2013	7,890,905	10,327,241	(2,436,336)	42,842	(2,393,494)	-	(2,393,494)
2012	7,561,367	7,660,234	(98,867)	48,220	(50,647)	-	(50,647)
2011	7,677,198	8,514,962	(837,764)	(256,151)	(1,093,915)	-	(1,093,915)

The Authority implemented provisions of GASB Statements 63 and 65 during the 2013 fiscal year, and applied all changes required thereof retroactively to statistical information, as necessary.

The Authority implemented provisions of GASB Statement 68 during the 2015 fiscal year and restated beginning net position accordingly. Information relative to GASB Statement 68 was not available for prior fiscal years and therefore provisions of this statement were not applied retroactively in this table.

The Authority implemented provisions of GASB Statement 75 during the 2018 fiscal year and restated beginning net position for 2018 and 2017, accordingly. Information relative to GASB Statement 75 was not available for fiscal years prior to fiscal year 2017 and therefore provisions of this statement were not applied retroactively in this table.

Source: RVRA audited financial statements

Table 3

ROANOKE VALLEY RESOURCE AUTHORITY

Operating Revenue by Source
Last Ten Fiscal Years
(unaudited)
(accrual basis of accounting)

Fiscal Year	Municipal Revenue	Commercial Revenue	Private Revenue	Recycling Revenue	Residential Homeowner Revenue	Miscellaneous Revenue	Total Revenues
2020	$ 5,686,407	$ 4,810,645	$ 2,740,314	$ 79,875	$ 537,209	$ 238,266	$ 14,092,716
2019	5,387,546	6,177,973	2,706,997	82,022	538,463	180,138	15,073,139
2018	4,842,979	6,039,663	2,200,310	72,535	470,649	92,272	13,718,408
2017	4,698,363	4,987,383	1,758,711	50,922	424,074	92,283	12,011,736
2016	4,035,795	2,760,585	1,372,023	38,775	420,724	115,267	8,743,169
2015	3,928,363	2,578,463	1,315,017	33,491	438,105	140,598	8,434,037
2014	3,962,910	2,221,222	1,499,014	39,970	390,324	12,136	8,125,576
2013	4,061,632	2,050,320	1,351,256	41,062	386,635	-	7,890,905
2012	3,885,701	1,876,495	1,204,215	47,524	397,427	150,005	7,561,367
2011	3,927,059	1,932,618	1,315,910	64,570	433,503	3,538	7,677,198

Source: RVRA audited financial statements

Table 4

ROANOKE VALLEY RESOURCE AUTHORITY

Operating Expenses

Last Ten Fiscal Years

(unaudited)

(accrual basis of accounting)

	Fiscal Year									
	2020	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Salaries and Benefits	$ 3,409,987	$ 3,003,458	2,792,507	$ 2,659,354	$ 1,903,883	$ 1,859,968	$ 1,912,552	$ 1,869,179	$ 1,772,108	$ 1,794,891
Landfill Closure and Postclosure	750,134	(1,006,653)	1,976,295	1,512,073	438,484	222,415	1,217,034	2,298,948	(164,307)	512,817
Other operating expenses	9,487,052	9,297,096	8,157,369	6,352,682	4,620,424	5,164,825	4,436,385	4,048,933	3,897,231	3,856,292
Depreciation	3,866,112	3,772,640	3,224,611	2,610,244	2,279,094	2,207,814	2,114,173	2,110,181	2,155,202	2,350,962
Total Operating Expenses	$ 17,513,285	$ 15,066,541	16,150,782	$ 13,134,353	$ 9,241,885	$ 9,455,022	$ 9,680,144	$ 10,327,241	$ 7,660,234	$ 8,514,962

Source: RVRA audited financial statements

Table 5

ROANOKE VALLEY RESOURCE AUTHORITY

Nonoperating Revenues and Expenses

Last Ten Fiscal Years

(unaudited)

(accrual basis of accounting)

Fiscal Year	Interest Revenue	Net increase (Decrease) In Fair Value of Investments	Gain (Loss) on Sale of Assets	Interest and Fiscal Charges	Total Non-Operating Income (Expenses)
2020	$ 207,474	$ -	$ (16,975)	$ (500,843)	$ (310,344)
2019	295,546	-	128,514	(539,514)	(115,454)
2018	165,909	-	(47,796)	(533,080)	(414,967)
2017	158,602	-	-	(147,559)	11,043
2016	106,683	-	-	-	106,683
2015	69,368	-	-	-	69,368
2014	46,812	-	312,156	-	358,968
2013	42,842	-	-	-	42,842
2012	48,220	-	-	-	48,220
2011	95,016	(1,532)	5,270	(354,905)	(256,151)

Source: RVRA audited financial statements

Table 6

ROANOKE VALLEY RESOURCE AUTHORITY

Annual Tonnage Received

Last Ten Fiscal Years

(unaudited)

(accrual basis of accounting)

Fiscal Year	Municipal Tonnage	Commercial Tonnage	Private Tonnage	Residential Tonnage	Total Tonnage
2020	109,912	75,927	44,691	10,728	241,258
2019	106,915	100,434	43,838	11,805	262,992
2018	99,326	103,139	38,854	10,844	252,163
2017	96,459	84,839	29,708	10,158	221,164
2016	84,167	46,854	23,553	9,329	163,903
2015	82,865	44,417	22,916	8,541	158,739
2014	85,773	39,022	26,758	9,020	160,573
2013	92,824	37,399	24,508	10,076	164,807
2012	87,373	34,518	21,142	9,473	152,506
2011	88,183	35,312	23,592	8,796	155,883

Source: RVRA reports provided by staff

Table 7

ROANOKE VALLEY RESOURCE AUTHORITY

Principal Customers

(unaudited)

(accrual basis of accounting)

	FY 2020		FY 2011	
	Revenue Amount	Percentage of Total	Revenue Amount	Percentage of Total
City of Roanoke	$ 2,416,658	17.15%	$ 1,989,847	25.93%
County of Roanoke	2,220,431	15.76%	1,813,136	23.63%
Waste Management Inc	1,790,352	12.70%	672,462	8.76%
First Piedmont Corporation	962,203	6.83%	516,852	6.74%
Affordable Container Service	395,816	2.81%	76,459	1.00%
City of Salem	876,461	6.22%	N/A	-
Tidy Services	764,701	5.43%	173,153	2.26%
Residential Disposal Program	537,209	3.81%	432,873	5.64%
Republic Services	612,021	4.34%	34,397	0.45%
Town of Vinton	192,856	1.37%	157,312	2.05%
Subtotal largest customers	10,768,708	76.41%	5,866,491	76.45%
Balance From other Customers	3,324,008	23.59%	1,807,169	23.55%
Grand Totals	$ 14,092,716	100.00%	$ 7,673,660	100.00%

Source: RVRA reports provided by staff

Table 8

ROANOKE VALLEY RESOURCE AUTHORITY

Disposal Fees Per Ton
Last Ten Fiscal Years
(unaudited)
(accrual basis of accounting)

Fiscal Year	Municipal Rate	Commercial Rate	Private Rate	Residential Rate
2020	$ 53.50	$ 61.50	$ 61.50	$ 53.50
2019	51.50	61.50	61.50	51.50
2018	49.50	59.50	59.50	49.50
2017	49.50	59.50	59.50	49.50
2016	49.00	59.00	59.00	49.00
2015	48.00	58.00	58.00	48.00
2014	47.00	57.00	57.00	57.00
2013	45.00	55.00	55.00	45.00
2012	45.00	55.00	55.00	45.00
2011	45.00	55.00	55.00	45.00

Source RVRA Budget Book

Table 9

ROANOKE VALLEY RESOURCE AUTHORITY
Ratios of Outstanding Debt by Type
Last Ten Fiscal Years
(Unaudited)

			Roanoke County		Roanoke City		Vinton		City of Salem*	
Fiscal Year	Revenue Bonds	Capital Leases	Per Capita	As a Share of Personal Income	Per Capita	As a Share of Personal Income	Per Capita	As a Share Of Personal Income	Per Capita	As a Share Of Personal Income
2020	$ 17,977,373	$ -	$ 192	0.37%	$ 180	0.41%	$ 2,218	0.37%	$ 711	0.37%
2019	18,782,733	654,756	201	0.32%	188	0.45%	2,320	0.32%	732	0.32%
2018	19,566,849	1,007,975	209	0.35%	196	0.49%	2,426	0.35%	757	0.35%
2017	20,000,000	-	213	0.35%	201	0.49%	2,444	0.35%	783	0.35%
2016	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%
2015	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%
2014	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%
2013	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%
2012	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%
2011	-	-	-	0.00%	-	0.00%	-	0.00%	-	0.00%

Source: Comprehensive Annual Financial Reports from Roanoke County, Roanoke City and Vinton
Population and Personal Income data from the Bureau of Economic Analysis
Audited financial statements Roanoke Valley Resource Authority

Note: The Authority did not have any revenue bonds outstanding as of June 30, 2011 through June 30, 2016.

* The City of Salem joined the RVRA in FY2017

ROANOKE VALLEY RESOURCE AUTHORITY

Pledged Revenue Coverage

Last Ten Fiscal Years

(Unaudited)

Fiscal Year	Operating Revenues	Investment Income	Miscellaneous Income	Transfer from Reserves	Gross Revenues	Less: Operating Expenses (excluding depreciation and change in future landfill liability)	Debt Service: Principal	Debt Service: Interest	Debt Service: Total Debt Service	Debt Service: Less: 100/110% Debt Service	Net Available Revenues
2020	$ 14,092,716	$ 207,474	$ -	$ -	$ 14,300,190	$ 13,029,250	$ 805,360	$ 508,151	$ 1,313,511	$ 1,313,511	$ (42,571)
2019	15,073,139	295,546	-	-	15,368,685	12,686,064	784,116	546,595	1,330,711	1,330,711	1,351,910
2018	13,718,403	165,909	-	-	13,884,312	12,051,008	433,151	452,274	885,425	885,425	947,879
2017	12,011,736	158,602	-	-	12,170,338	10,126,718	219,069	-	219,069	219,069	1,824,551
2016*	8,743,169	106,683	-	-	8,849,852	6,524,308	-	-	-	-	2,325,544
2015*	8,434,037	69,368	-	-	8,503,405	7,224,793	-	-	-	-	1,278,612
2014*	8,125,576	46,812	-	-	8,172,388	6,860,554	-	-	-	-	1,311,834
2013*	7,890,905	42,842	-	-	7,933,747	6,325,027	-	-	-	-	1,608,720
2012*	7,411,362	48,220	150,005	-	7,609,587	6,125,461	-	-	-	-	1,484,126
2011	7,673,660	95,016	8,808	9,784,603	17,562,087	6,336,995	7,775,000	352,604	8,127,604	8,940,364	2,284,728

Note: The revenue covenant was 110% of debt service prior to 2012 and 100% of debt service in 2017 and thereafter.
*The Authority did not have any debt outstanding from 2012 through 2016.

Source: RVRA financial and budget records.

Table 11

ROANOKE VALLEY RESOURCE AUTHORITY

Demographic Information
Last Ten Fiscal Years
(Unaudited)

	Roanoke County				Roanoke City			
Fiscal Year	Population	Personal Income *	Per Capita Income	Unemployment Rate	Population	Personal Income	Per Capita Income	Unemployment Rate
2011	92,376	$ 4,561,791,000	$ 40,688	5.7%	97,061	$ 3,576,942,000	$ 36,948	6.9%
2012	92,687	4,672,000,000	42,288	5.6%	97,206	3,827,065,000	39,100	6.5%
2013	93,256	4,789,030,000	42,288	5.8%	98,641	3,799,698,000	38,453	6.4%
2014	92,703	4,984,547,000	42,288	5.2%	98,913	3,915,935,000	39,385	5.7%
2015	93,569	5,159,100,000	42,288	4.2%	99,320	3,915,935,000	39,385	5.6%
2016	93,775	5,435,865,000	45,577	3.5%	99,681	3,915,935,000	39,385	4.1%
2017	93,924	5,758,037,000	48,047	3.6%	99,644	4,090,520,000	40,947	4.5%
2018	93,735	5,785,780,000	48,384	3.1%	99,908	4,211,972,000	42,263	3.7%
2019	93,672	5,962,802,000	49,860	2.7%	99,920	4,187,753,000	41,946	2.8%
2020	93,805	6,254,966	52,248	7.0%	99,920	4,341,578	43,451	4.7%

	Vinton				City of Salem*			
Fiscal Year	Population	Personal Income	Per Capita Income	Unemployment Rate	Population	Personal Income	Per Capita Income	Unemployment Rate
2011	8,098	$ 4,561,791,000	$ 39,315	5.7%	-	-	-	-
2012	8,130	4,672,000,000	39,866	5.7%	-	-	-	-
2013	8,092	4,789,030,000	40,688	5.9%	-	-	-	-
2014	8,151	4,984,547,000	42,288	5.5%	-	-	-	-
2015	8,151	5,159,100,000	43,418	4.5%	-	-	-	-
2016	8,151	5,435,865,000	43,418	3.6%	-	-	-	-
2017	8,185	5,758,037,000	48,047	3.7%	25,549	$ 5,758,037,000	$ 48,047	4.1%
2018	8,065	5,785,780,000	48,384	3.4%	25,862	5,785,780,000	48,384	3.4%
2019	8,096	5,962,802,000	49,860	2.9%	25,643	5,962,802,000	49,860	2.9%
2020	8,104	6,254,966	52,248	8.1%	25,301	6,254,966	52,248	9.1%

Source: Comprehensive Annual Financial Reports from Roanoke County, Roanoke City and Vinton
Population and Personal Income data from the Bureau of Economic Analysis

* City of Salem joined RVRA in October 2017

Table 12

ROANOKE VALLEY RESOURCE AUTHORITY

Principal Employers

(unaudited)

Fiscal Years 2020 and 2011

	2020			2011		
Employer	Rank	Ownership	Number of Employees	Rank	Ownership	Number of Employees
Roanoke County Schools	1	Local Govt.	2,000+	1	Local Govt.	1,000+
Wells Fargo Operations Center (Wachovia division)	2	Private	2,000+	2	Private	1,000+
County of Roanoke	3	Local Govt.	1,000+	3	Local Govt.	1,000+
Kroger	4	Private	500-999	-	-	-
Friendship Retirement Community	5	Private	500-999	6	Private	500-999
Richfield Recovery & Care Center	6	Private	500-999	7	Private	500-999
Elbit Systems Ltd.	7	Private	500-999	-		-
Allstate Insurance Company	8	Private	500-999	4	Private	1,000+
Integrity Windows & Doors	9	Private	250-499	-	-	-
Wal-mart	10	Private	250-499	-	-	-
ITT Industries	-	-	-	5	Private	1,000+
Friendship Manor, Inc.	-	-	-	8	Private	500-999
Berkshire Health Care Center	-	-	-	9	Private	250-499
Medeco High Security Locks	-	-	-	10	Private	250-499

Source: Roanoke County Economic Development Department

Table 13

ROANOKE VALLEY RESOURCE AUTHORITY
Number of Employees by Identifiable Activity
Last Ten Fiscal Years
(unaudited)

	Fiscal Year									
	2020	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Administration										
General Management	3	3	3	3	3	3	3	3	3	3
Finance	1	1	1	1	1	1	1	1	1	1
Administrative Coordinator	1	1	1	1	1	1	1	1	1	1
Business Supervisor	1	1	1	1	1	1	1	1	1	2
Operating										
Supervisors	5	3	3	3	2	2	2	2	2	2
Scale Operators	3	3	3	3	1	1	1	1	1	1
Equipment Operators	27	25	24	24	18	18	16	17	17	16
Building and General Maintenan	1	1	1	1	1	1	1	1	1	1
Equipment Mechanic	-	-	1	1	1	1	1	1	1	1
Laborer	-	-	-	-	-	-	-	-	-	1
Total Employees	42	38	38	38	29	29	27	28	28	29

Source: RVRA Budget Book

Table 14

ROANOKE VALLEY RESOURCE AUTHORITY
Operating and Capital Indicators
Last Ten Fiscal Years
(Unaudited)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Waste Received in tons	241,258	262,992	252,163	221,164	163,903	158,739	160,573	164,807	152,506	155,883
Materials Recycled in tons (equals total above)										
Wood	11,564	11,921	10,311	10,304	11,344	8,463	11,407	18,720	11,837	10,551
Metal	492	497	494	371	262	182	187	170	228	314
Tires	898	671	600	418	299	259	315	238	256	252
Other (batteries, cardboard, glass, newspapers	16	27	59	46	43	40	47	27	44	2
Landfilled	228,288	249,876	240,699	210,025	151,955	149,795	148,617	145,652	140,141	144,764
Percent Recycled	5.38%	5.00%	4.54%	5.03%	7.30%	5.63%	7.45%	11.62%	8.11%	7.13%
Residential Waste Disposal										
Tonnage	10,729	11,806	10,846	10,158	9,329	8,541	9,020	10,076	9,472	8,796
Tires (Count)	1,381	1,950	2,289	1,715	1,971	1,505	1,397	1,451	1,893	1,667
Transactions	43,506	47,617	44,355	41,132	37,911	34,500	36,441	40,600	37,284	35,157
Disposal Fees	$ 537,178	$ 538,454	$ 470,648	$ 424,074	$ 420,724	$ 438,101	$ 390,324	$ 386,633	$ 398,057	432,871
Disposal Fees										
Municipal Rate	$ 53.5	$ 51.5	$ 49.5	$ 49.5	$ 49.5	$ 49.0	$ 47.0	$ 45.0	$ 45.0	45.0
Commercial Rate	$ 61.5	$ 61.5	$ 59.5	$ 59.5	$ 59.5	$ 59.0	$ 57.0	$ 55.0	$ 55.0	55.0
Private Rate	$ 61.5	$ 61.5	$ 59.5	$ 59.5	$ 59.5	$ 59.0	$ 57.0	$ 55.0	$ 55.0	55.0
Residential Rate	$ 53.5	$ 51.5	$ 49.5	$ 49.5	$ 49.5	$ 49.0	$ 47.0	$ 45.0	$ 45.0	45.0
Wood Waste Rate	$ 35.0	$ 35.0	$ 35.0	$ 35.0	$ 35.0	$ 35.0	$ 35.0	$ 35.0	$ 35.0	35.0
Railcar Waste Transported in tons										
Railcars	3,084	2,934	3,449	2,979	2,361	2,172	2,258	2,231	2,142	2,216
Tonnage	212,181	201,352	230,434	196,743	150,597	148,908	146,309	145,448	139,066	144,428
Average	68.80	68.63	66.81	66.04	63.79	68.56	64.80	65.19	64.92	65.18
Shipping Cost	$ 2,670,963	$ 2,344,947	$ 2,525,469	$ 2,194,605	$ 1,734,373	$ 1,864,514	$ 1,935,012	$ 1,797,827	$ 1,857,047	1,687,991
Capital Indicators										
Number of Permitted Sites	4	4	4	4	3	3	3	3	3	3
Number of Open Permitted Sites	3	3	3	3	2	2	2	2	2	2
Number of Collection sites	3	3	3	3	2	2	2	2	2	2

Source: Roanoke Valley Resource Authority records

COMPLIANCE SECTION

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 Members of the Board
Roanoke Valley Resource Authority
Roanoke, 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 the Roanoke Valley Resource Authority, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Roanoke Valley Resource Authority's basic financial statements and have issued our report thereon dated September 11, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Roanoke Valley Resource Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Roanoke Valley Resource Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Roanoke Valley Resource 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 and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as item 2020-001 that we consider to be significant deficiencies.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Roanoke Valley Resource Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statement. 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*.

Roanoke Valley Resource Authority's Response to Findings

Roanoke Valley Resource Authority's response to the findings identified in our audit is described in the accompanying schedule of findings and responses. Roanoke Valley Resource Authority's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

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

Blacksburg, Virginia
September 11, 2020

Section I - Summary of Auditors' Results

Financial Statements

Type of auditors' report issued:	Unmodified
Internal control over financial reporting:	
Material weakness(es) identified?	No
Significant deficiency(ies) identified?	Yes
Noncompliance material to financial statements noted?	No

Section II - Financial Statement Findings

2020-001

Condition:	The Authority lacks proper segregation of duties over billing and collections.
Criteria:	A key concept of internal controls is the segregation of duties. No one employee should have access to both accounting records and related assets.
Cause:	The Authority's limited number of staff does not allow them to properly segregate duties.
Effect:	There is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected by the entity's internal controls over financial reporting.
Management's Response:	Limited number of staff has precluded the Roanoke Valley Resource Authority from segregating key duties related to billings and collections. Currently, the Authority does not plan on hiring additional personnel to address the aforementioned condition as same is not considered cost-effective.

Section III - Status of Prior Audit Findings

2019-001 (Significant Deficiency)	Recurring in the current year as 2020-001.