

# ROANOKE VALLEY RESOURCE AUTHORITY

## Comprehensive Annual Financial Report For the Fiscal Year Ended June 30, 2021



TINKER CREEK TRANSFER STATION

Roanoke, Virginia

**ROANOKE VALLEY RESOURCE AUTHORITY**

**ROANOKE, VIRGINIA**

Comprehensive Annual Financial Report  
For the Fiscal Year Ended June 30, 2021

**Prepared by:**

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Roanoke County Department of Finance and Management Services

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**ROANOKE VALLEY RESOURCE AUTHORITY**

Comprehensive Annual Financial Report  
For the Year Ended June 30, 2021

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## INTRODUCTORY SECTION

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## ROANOKE VALLEY RESOURCE AUTHORITY

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September 3, 2021

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 Annual Report of the Roanoke Valley Resource Authority (Authority) for the fiscal year ended June 30, 2021. 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, 2021. 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 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 Authority began the final conversion of its rail haul operations to trucking in FY'21. Starting on April 5, 2021, the Authority began the final stages of converting its dedicated rail spur to its Smith Gap Landfill to a dedicated access road. During construction of the access road, the Authority also began the final construction modifications to its Tinker Creek Transfer Station. The bulk of the Authority's customers were directed to the Authority's Salem Transfer Station during this construction. All of the Authority's MSW was delivered to a third party landfill during this construction period at an additional operating cost. Funding for these additional operating costs was anticipated and previously provided for in the Authority's Contingency Reserve Fund. Upon completion of the access road conversion project, the Authority will resume transporting its MSW to its Smith Gap Landfill. The conversion projects necessary for the Authority to assume its new-normal, trucking operations is anticipated for completion in early fall of 2021. Additional information on this project may be gleaned by accessing the Authority's website at [www.rvra.net](http://www.rvra.net).

At Smith Gap Station, upon resuming operations with the truck-delivered MSW, the trailers are unloaded directly onto the landfill working face. The MSW is inspected and covered daily 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.

### **Major Initiatives and Accomplishments for FY 2021**

- 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 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<sub>2</sub>e) 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<sub>2</sub>e emission credits which were sold, after expenses, for approximately \$106,000; in FY 2016 the Authority's CO<sub>2</sub>e emission credits sold, after expenses, for approximately \$57,300; in FY 2017 the Authority's CO<sub>2</sub>e emission credits sold, after expenses, for approximately \$42,600; in FY 2018 the Authority's CO<sub>2</sub>e emission credits sold, after expenses, for approximately \$34,300; in FY 2019 the Authority's CO<sub>2</sub>e 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 was 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 or FY'21. The Authority anticipates revisiting the potential beneficial use of landfill gas through a third-party contractor in FY'22.
- The Authority issued \$20M in financing proceeds in FY'16 & '17 through private bank financing and \$10M in additional financing proceeds through the Virginia Resource Authority (VRA) in FY'21. 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 fourth full year of private bank debt service payments in FY'21 and will initiate VRA payments in FY'22.
- The Connector Road and Spur Road Projects, upon final completion, will jointly form a "Transportation Corridor." The Corridor will serve as the primary delivery system route for tractor trailers to access the Authority's Smith Gap Landfill directly from the interstate (1-81) in lieu of using the public road system. The Corridor 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. During FY'21, based on the pending availability of the Corridor, the Authority solicited, received, and awarded contracts for the direct delivery of an additional 100,000+ tons of commercially generated MSW to the Smith Gap Landfill.
- 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, directly to the Authority's Smith Gap Landfill avoiding the previous operations' double/triple-handling of its wastes. 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.
- 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 provided the Authority with a sole-cancellation option at the end of any annual term under certain terms and conditions. The Authority exercised its option to terminate its contract with NS in April, 2021.

### **Awards and Acknowledgments**

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, 2020. This was the twelfth 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.



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**

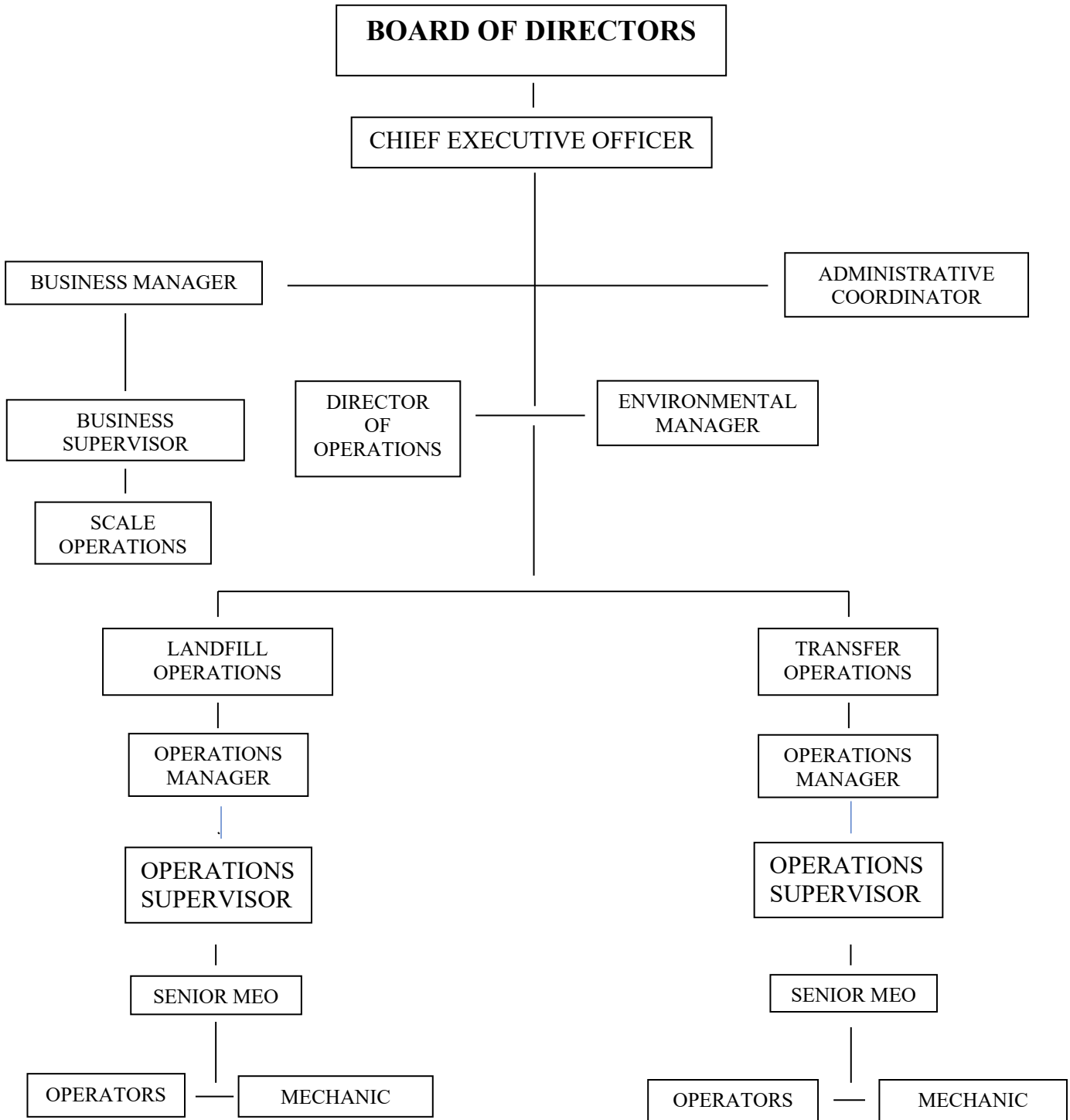
For its Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

June 30, 2020

*Christopher P. Morrill*

Executive Director/CEO

**ROANOKE VALLEY RESOURCE AUTHORITY  
ORGANIZATIONAL CHART**



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**ROANOKE VALLEY RESOURCE AUTHORITY**

**List of Appointed Officials  
For the Year Ended June 30, 2021**

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

BOARD MEMBERS

Mike Tyler, Chairman

Daniel O'Donnell, Vice Chair

Rebecca E. Owens, MBA, Treasurer

Steve Bandy

Doug Blount

Broaddus Fitzpatrick

Richard "Pete" Peters

Jeffrey Powell

Daniel Webb

OFFICIALS

Chief Executive Officer  
Director of Operations  
Business Manager  
Business Supervisor  
Administrative Coordinator  
Environmental/Safety Manager  
General Counsel

Daniel D. Miles, P.E.  
Steven R. Barger, P.E.  
Randall Remington  
Ollie Tyree  
Peggy Bishop  
Edward Hacker  
Jim H. Guynn, Jr., Esq.

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**FINANCIAL SECTION**

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**Independent Auditors' Report**

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**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, 2021, 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, 2021, 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 12-16 and 55-62 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 3, 2021, 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 3, 2021



**Roanoke Valley Resource Authority  
Management's Discussion and Analysis  
For the Year Ended June 30, 2021**

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, 2021. 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, 2021 by \$3,443,362 (Net Position). Of this amount, \$(5,417,836) is classified as unrestricted net position, indicating that no funds were available for discretionary purposes.
- During the year, the Authority's total revenues were \$5,710,814 less than the \$19,426,531 of expenses.
- The Authority had outstanding debt of \$25,415,485 (exclusive of unamortized premiums) at June 30, 2021.

**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 **Statement 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 the 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 \$5,710,814 during the fiscal year. This deterioration was largely due to a \$584,473 decrease in total revenues due to the loss of commercial waste revenues, plus an increase in operating costs of \$1.26 million due to the Authority transporting and disposing of its municipal solid waste (MSW) at a third-party landfill during the construction of its Facilities Improvements Project Transportation Corridor.

- The **Statement of Cash Flows** presents changes in cash and cash equivalents, resulting from operational, capital and 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 21 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:

	<u>FY 2021</u>	<u>FY 2020</u>
Current and other assets	\$ 24,076,029	\$ 16,425,559
Capital assets, net	28,219,547	29,731,631
Total assets	<u>52,295,576</u>	<u>46,157,190</u>
Deferred outflows of resources	<u>1,030,225</u>	<u>849,881</u>
Current liabilities	3,943,074	1,858,875
Noncurrent liabilities	45,765,915	35,821,675
Total Liabilities	<u>49,708,989</u>	<u>37,680,550</u>
Deferred inflows of resources	<u>173,450</u>	<u>172,345</u>
Net investment in capital assets	8,861,198	11,813,084
Unrestricted	(5,417,836)	(2,658,908)
Total net position	<u>\$ 3,443,362</u>	<u>\$ 9,154,176</u>

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 exceed liabilities and deferred inflows of resources by \$3,443,362 at the close of fiscal year 2021. This is a decrease from last year's Net Position of \$9,154,176.

A portion of the Authority's Net Position, 257.34%, 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, (157.34)%, 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:

	<u>FY 2021</u>	<u>FY 2020</u>
Revenues		
Charges for services	\$ 13,691,451	\$ 14,092,716
Nonoperating Revenues:		
Interest income	24,266	207,474
Total revenues	<u>13,715,717</u>	<u>14,300,190</u>
Expenses		
Operating expense		
Salaries and benefits	(3,519,666)	(3,409,987)
Landfill closure costs	(739,061)	(750,134)
Other operating expenses	(10,343,356)	(9,487,052)
Depreciation	(4,173,478)	(3,866,112)
Non-operating expenses:		
Interest expense	(502,930)	(500,843)
Bond issuance costs	(148,040)	-
Loss on sale of assets	-	(16,975)
Total expenses	<u>(19,426,531)</u>	<u>(18,031,103)</u>
Change in net position	(5,710,814)	(3,730,913)
Total net position at beginning of year	9,154,176	12,885,089
Total net position at end of year	<u>\$ 3,443,362</u>	<u>\$ 9,154,176</u>

The Authority's total revenues decreased over the prior year by 4.09% to \$13,715,717 due primarily to reduced tipping fee collections. Tipping fees were 2.48% lower than the prior year. Interest income decreased by 88.30% as a result of lower investment yields. The expenses for all programs and services increased by 7.74% in FY 2021, primarily due to the additional operating costs for disposal of the Authority's municipal solid waste (MSW) at a third-party landfill during the construction of its Facilities Improvements Project Transportation Corridor.

Approximately 98.69% of the Authority's Fiscal Year 2021 revenue is from operating revenue consisting of tipping fees, and recycling income; 1.13% is miscellaneous consisting primarily of mulch sales and insurance recoveries; and 0.18% from non-operating revenue consists of interest income. Operational expenses for FY 2021 account for 96.65% of total expenses, with remaining expense from interest expense and bond issuance costs (3.35%).

### Capital Assets

As of June 30, 2021, the Authority had invested \$28,219,547, 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 \$2,661,394. The majority of this investment was composed of the following:

- (1) Heavy equipment purchase (2020 Volvo Crawler Excavator)
- (4) Technology purchases (i.e. Sycom switches, PowerEdge T440 Servers)

Included in this year's investment total is construction in progress related to the construction and engineering costs of the Tinker Creek Transfer Station (\$555,564) and the Smith Gap Landfill Rail Spur Roadway (\$1,878,530). Major disposals in the current year include fully depreciated rail access assets of approximately \$21.5 million related to the Authority's change in the delivery method of solid waste.

Additional information on the Authority's capital assets can be found in Note 3 in the notes to the basic financial statements on page 29. Capital assets net of accumulated depreciation are illustrated in the following table:

	<u>FY 2021</u>	<u>FY 2020</u>
Land	\$ 5,535,682	\$ 5,535,682
Landfill and Rail Access	23,119,394	44,573,338
Transfer Station	13,355,666	13,355,666
Equipment	19,386,661	19,415,198
Construction in progress	2,434,094	-
Subtotal	<u>63,831,497</u>	<u>82,879,884</u>
Accumulated depreciation	(35,611,950)	(53,148,253)
Totals	<u>\$ 28,219,547</u>	<u>\$ 29,731,631</u>

#### **Long -Term Debt**

At June 30, 2021, the Authority had \$25,415,485 of bonded debt issues outstanding. This debt was used to support the development of improved long-term, operational efficiencies due to the 2017 addition of the City of Salem as a member of the Authority as well as to convert the Authority's operations from the use of a rail-haul transportation system to a tractor-trailer trucking transportation system. Additional information related to long - term liabilities can be found in Note 4, page 30 in the notes to the basic financial statements.

#### **Factors Influencing Future Budgets**

Key factors that are expected to impact future budgets include:

- Ability to provide competitive tipping fees and improved economies of scale with direct deliveries of commercial waste to landfill
- Improved operational efficiencies resulting from the completion of the Transportation Corridor project
- Continued 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](http://www.rvra.net).

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## Basic Financial Statements

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**ROANOKE VALLEY RESOURCE AUTHORITY**  
Statement of Net Position  
June 30, 2021

**ASSETS**

Current assets:

Cash and cash equivalents	\$	7,126,506
Restricted cash and cash equivalents (note 1)		9,655,929
Cash held with others (note 1)		1,244,370
Accounts receivable		1,280,672
Interest receivable		976
Inventory		372,695
Prepaid items		23,000

Total current assets	\$	<u>19,704,148</u>
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Noncurrent assets:

Investments (note 2)	\$	4,371,881
Non-depreciable capital assets (note 3)		7,969,776
Depreciable capital assets, net of accumulated depreciation (note 3)		<u>20,249,771</u>

Total noncurrent assets	\$	<u>32,591,428</u>
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Total assets	\$	<u>52,295,576</u>
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**DEFERRED OUTFLOWS OF RESOURCES**

Pension related items (note 5)	\$	866,971
OPEB related items (note 6, 7 and 8)		<u>163,254</u>

Total deferred outflows of resources	\$	<u>1,030,225</u>
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The accompanying notes are an integral part of the basic financial statements.

ROANOKE VALLEY RESOURCE AUTHORITY

Statement of Net Position

June 30, 2021

**LIABILITIES**

Current liabilities:

Vouchers payable	\$	1,041,075
Construction and retainage payables		1,175,777
Accrued payroll		35,468
Accrued interest		180,762
Compensated absences, current portion (note 4)		132,649
Locality compensation payments payable, current portion (note 4)		199,980
Accrued landfill closure, current portion (notes 4 and 9)		135,733
Revenue bonds payable (note 4)		<u>1,041,630</u>

Total current liabilities	\$	<u>3,943,074</u>
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Noncurrent liabilities:

Compensated absences, net of current portion (note 4)	\$	187,525
Net OPEB liabilities (notes 4, 6, 7 and 8)		421,534
Net pension liability (notes 4 and 5)		2,311,725
Accrued landfill closure, net of current portion (notes 4 and 9)		16,248,240
Locality compensation payments payable (note 4)		385,416
Revenue bonds payable, net (note 4)		<u>26,211,475</u>

Total noncurrent liabilities	\$	<u>45,765,915</u>
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Total liabilities	\$	<u>49,708,989</u>
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**DEFERRED INFLOWS OF RESOURCES**

Pension related items (note 5)	\$	16,508
OPEB related items (note 6, 7, 8)		<u>156,942</u>

Total deferred inflows of resources	\$	<u>173,450</u>
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**NET POSITION**

Net investment in capital assets	\$	8,861,198
Unrestricted		<u>(5,417,836)</u>

Total net position	\$	<u><u>3,443,362</u></u>
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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, 2021

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**OPERATING REVENUES**

Tipping fees	\$	13,433,248
Recycling revenue		102,676
Mulch revenue		59,110
Miscellaneous fees		96,417
Total operating revenues	\$	<u>13,691,451</u>

**OPERATING EXPENSES**

Salaries and benefits	\$	3,519,666
Landfill closure and post closure costs (note 9)		739,061
Other operating expenses		10,343,356
Depreciation		4,173,478
Total operating expenses	\$	<u>18,775,561</u>

Operating income (loss)	\$	<u>(5,084,110)</u>
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**NONOPERATING REVENUES (EXPENSES)**

Interest income	\$	24,266
Interest expense		(502,930)
Bond issuance costs		(148,040)
Total nonoperating revenues (expenses)	\$	<u>(626,704)</u>

Change in net position	\$	(5,710,814)
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Total net position, beginning of year		9,154,176
Total net position, end of year	\$	<u><u>3,443,362</u></u>

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, 2021

<b>Cash Flows from Operating Activities</b>	
Receipts from customers	\$ 13,624,349
Payments to suppliers	(9,851,255)
Payments to employees	(3,218,422)
Net cash provided by (used for) operating activities	<u>\$ 554,672</u>
<b>Cash Flows from Capital and Related Financing Activities</b>	
Purchase and construction of capital assets	\$ (1,485,617)
Issuance of revenue bond	10,004,580
Principal paid on locality compensation payments	(204,525)
Principal paid on revenue bonds	(826,888)
Interest paid on locality compensation payments	(14,716)
Interest paid on revenue bonds	(451,208)
Bond issuance costs	(50,000)
Net cash provided by (used for) capital and related financing activities	<u>\$ 6,971,626</u>
<b>Cash Flows from Investing Activities</b>	
Interest income	\$ 27,160
Purchase of investments	(599,874)
Net cash provided by (used for) investing activities	<u>\$ (572,714)</u>
Net increase (decrease) in cash and cash equivalents	\$ 6,953,584
Cash and cash equivalents at the beginning of the year, including restricted amounts	11,073,221
Cash and cash equivalents at the end of the year, including restricted amounts	<u>\$ 18,026,805</u>
<b>Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:</b>	
Operating income (loss)	\$ (5,084,110)
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:	
Depreciation	4,173,478
Changes in assets, deferred outflows of resources, liabilities and deferred inflows of resources:	
Accounts receivable	(67,102)
Inventory	(10,220)
Prepaid items	(22,584)
Deferred outflows of resources	(180,344)
Vouchers payable	638,127
Accrued payroll	15,748
Compensated absences	(4,658)
Landfill closure liability	625,839
Net OPEB liabilities	(143,789)
Net pension liabilities	613,182
Deferred inflows of resources	1,105
Net cash provided by (used for) operating activities	<u>\$ 554,672</u>

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

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
as of June 30, 2021

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### **Note 1—Summary of Significant Accounting Policies:**

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#### **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, County of Roanoke (the County) and the Town of Vinton (the Town). The City of Salem joined the Authority on July 1, 2016.

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 of Roanoke, the County and the Town, the County transferred all existing assets and liabilities to the Authority. The Authority assumed ownership and operational control of Salem's transfer station on November 1, 2016.

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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### **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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### **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 and 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, City of Salem, 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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### 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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### **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 Cities, 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 \$9,655,929 have been restricted by applicable bond agreements for the construction of landfill cell(s), an access road and related items.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### V. Cash Held with Others

Deposits with Roanoke County and Roanoke City of \$1,244,370 have been recorded in the accompanying financial statements as cash held with others. These deposits were required to assure the timely construction and completion of improvements in accordance with approved plans. Such funds will be returned upon the successful completion of current construction projects.

#### Note 2—Deposits and Investments:

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*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, 2021, the carrying value of the Authority's deposits with banks and savings institutions was \$7,299,323. 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](http://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, 2021, all of the Authority's investments were held in accordance with this policy.



**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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, 2021 were rated by Standard and Poor’s and/or an equivalent national rating organization and the ratings are presented below using the Standard and Poor’s rating scale.

**Authority's Rated Debt Investments' Values**

<u>Rated Debt Investments</u>	<u>Fair Quality Ratings</u>	
	<u>AAAm</u>	<u>Not rated</u>
Roanoke County Treasurer's Investment Pool	\$ -	\$ 4,371,881
State Non-arbitrage Pool (SNAP)	9,483,112	-
Total	\$ <u>9,483,112</u>	\$ <u>4,371,881</u>

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](http://www.roanokecountyva.gov).

**External Investment Pools**

The value of the positions in the external investment pools is the same as the value of the pool shares. As SNAP is not SEC registered, regulatory oversight of the pool rests with the Virginia State Treasury. SNAP is an amortized cost basis portfolio. There are no withdrawal limitations or restrictions imposed on participants in SNAP. As the Roanoke County Investment Pool is not SEC registered, regulatory oversight of the pool rests with the Roanoke County Board of Supervisors. The County of Roanoke does not impose any redemption restrictions on the Authority.

**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.

ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 2—Deposits and Investments: (Continued)**

**Interest Rate Risk (Continued)**

<b>Investment Maturities (in years)</b>			
<b>Investment Type</b>	<b>Fair Value</b>	<b>1 Year</b>	<b>1-5 Years</b>
Roanoke County Investment Pool	\$ 4,371,881	\$ -	\$ 4,371,881
SNAP	9,483,112	9,483,112	-
Totals	\$ <u>13,854,993</u>	\$ <u>9,483,112</u>	\$ <u>4,371,881</u>

**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).

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**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 3—Capital Assets:**

Capital asset activity for the year ended June 30, 2021 was as follows:

	Balance July 1, 2020	Increases	Decreases	Balance June 30, 2021
<b>Capital assets not being depreciated:</b>				
Land	\$ 5,535,682	\$ -	\$ -	\$ 5,535,682
Construction in Progress	-	2,434,094	-	2,434,094
Total capital assets not being depreciated	<u>\$ 5,535,682</u>	<u>\$ 2,434,094</u>	<u>\$ -</u>	<u>\$ 7,969,776</u>
<b>Capital assets being depreciated:</b>				
Landfill and Rail Access	\$ 44,573,338	\$ -	\$ (21,453,944)	\$ 23,119,394
Transfer Station (Building and Structure)	13,355,666	-	-	13,355,666
Equipment	19,415,198	227,300	(255,837)	19,386,661
Total capital assets being depreciated	<u>\$ 77,344,202</u>	<u>\$ 227,300</u>	<u>\$ (21,709,781)</u>	<u>\$ 55,861,721</u>
<b>Accumulated depreciation:</b>				
Landfill and Rail Access	\$ (35,242,499)	\$ (1,825,829)	\$ 21,453,944	\$ (15,614,384)
Transfer Station (Building and Structure)	(5,858,354)	(419,473)	-	(6,277,827)
Equipment	(12,047,400)	(1,928,176)	255,837	(13,719,739)
Total accumulated depreciation	<u>\$ (53,148,253)</u>	<u>\$ (4,173,478)</u>	<u>\$ 21,709,781</u>	<u>\$ (35,611,950)</u>
Total capital assets being depreciated, net	<u>\$ 24,195,949</u>	<u>\$ (3,946,178)</u>	<u>\$ -</u>	<u>\$ 20,249,771</u>
Total capital assets, net	<u>\$ 29,731,631</u>	<u>\$ (1,512,084)</u>	<u>\$ -</u>	<u>\$ 28,219,547</u>

In May 2021, the Authority discontinued the use of rail operations to deliver trash to the landfill. Current year deletions include the rail access, which had an approximate cost of \$21,453,944 and accumulated depreciation of \$21,453,944.

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**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 4—Long-Term Liabilities:**

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

	Balance			Balance		Due Within
	July 1, 2020	Additions	Reductions	June 30, 2021	One Year	
Direct Borrowings -						
Revenue Bonds	\$ 17,977,373	\$ 8,265,000	\$ (826,888)	\$ 25,415,485	\$ 848,708	
Bond premium	-	1,837,620	-	1,837,620	192,922	
Locality Compensation Payments	789,921	-	(204,525)	585,396	199,980	
Compensated Absences	324,832	141,805	(146,463)	320,174	132,649	
Accrued Landfill Closure and Postclosure (Note 9)	15,758,134	759,963	(134,124)	16,383,973	135,733	
Net OPEB Liabilities	565,323	72,845	(216,634)	421,534	-	
Net Pension Liability	1,698,543	1,120,934	(507,752)	2,311,725	-	
	<u>\$ 37,114,126</u>	<u>\$ 12,198,167</u>	<u>\$ (2,036,386)</u>	<u>\$ 47,275,907</u>	<u>\$ 1,509,992</u>	

All liabilities are liquidated by operating funds.

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**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 4—Long-Term Liabilities: (Continued)**

Details of the Authority's outstanding long-term liabilities at June 30, 2021 are as follows:

Type	Interest Rates	Installment Amounts	Final Maturity Date	Amount of Original Issue	Balance Due	Amount Due Within One Year
<i>Direct Borrowings</i>						
<i>Revenue Bonds</i>						
Solid Waste Revenue Bond Series 2017A	2.50%	\$42,925-\$69,025 (a+)	7/15/2037	\$ 1,100,000	\$ 921,670	\$ 47,440
Solid Waste Revenue Bond Series 2017B	2.65%(v)	\$340,000-\$565,000 (a+)	7/15/2037	8,900,000	7,850,000	370,000
Solid Waste Revenue Bond Series 2016	2.50%	\$390,226-\$627,504 (a+)	11/1/2036	10,000,000	8,378,815	431,268
Solid Waste Revenue Bond Series 2021	4.125-5.125%	\$250,000-\$610,000 (a+)	10/1/2041	8,250,000	8,265,000	-
<i>Total Revenue Bonds</i>					<u>\$25,415,485</u>	<u>\$ 848,708</u>
<i>Add: Unamortized premium on</i>						
VRA 2021 Spring Pool	n/a		10/1/2041	1,837,620	\$ 1,837,620	\$ 192,922
<i>Total Revenue Bonds and Unamortized Premium</i>					<u>\$27,253,105</u>	<u>\$ 1,041,630</u>
<i>Locality Compensation Payments:</i>						
City of Salem 2011 Bond	2.14%	\$189,981-\$219,069 (a+)	10/1/2023	1,644,381	\$ 585,396	\$ 199,980
<i>Other Long-Term Obligations:</i>						
Compensated absences					\$ 320,174	\$ 132,649
Accrued landfill closure liability					16,383,973	135,733
Net OPEB liabilities					421,534	-
Net pension liability					2,311,725	-
<i>Total Other Long-Term Obligations</i>					<u>\$ 19,437,406</u>	<u>\$ 268,382</u>
<b>Total Long-Term Liabilities</b>					<u><u>\$47,275,907</u></u>	<u><u>\$ 1,509,992</u></u>

The Authority failed to maintain a debt service coverage ratio of 1.0 as required on their 2016 and 2017 revenue bond series for the 2021 fiscal year. Absent increased operational costs of \$2,421,107 related to the conversion from a rail based to a road based transporter of waste, the Authority would have been in compliance with the debt service coverage ratio. Accordingly, the Authority anticipates a return to compliance in the next fiscal year as operational costs related to the conversion will be reduced.

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.

(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%

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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		Direct Borrowing	
	Revenue Bonds		Locality Compensation Payments	
	Principal	Interest	Principal	Interest
2022	\$ 848,708	\$ 780,406	\$ 199,980	\$ 10,388
2023	1,120,827	778,119	195,435	6,157
2024	1,158,253	742,294	189,981	2,033
2025	1,195,994	705,120	-	-
2026	1,229,057	666,718	-	-
2027-2031	6,793,104	2,706,947	-	-
2032-2036	7,958,012	1,534,662	-	-
2037-2041	4,501,530	458,797	-	-
2042	610,000	12,581	-	-
Total	\$ <u>25,415,485</u>	\$ <u>8,385,644</u>	\$ <u>585,396</u>	\$ <u>18,578</u>

**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 with a membership date 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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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### Note 5—Pension Plan: (Continued)

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- b. Employees with a membership date from July 1, 2010 to December 31, 2013, that have not taken a refund or employees with a membership date prior to July 1, 2010 and not vested before January 1, 2013, are covered under Plan 2, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of service credit or when the sum of their age plus service credit equals 90. Non-hazardous duty employees may retire with a reduced benefit as early as age 60 with at least 5 years of service credit.
- c. Non-hazardous duty employees with a membership date 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.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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**Note 5—Pension Plan: (Continued)**

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***Contributions (Continued)***

The Roanoke Valley Resource Authority’s contractually required employer contribution rate for the year ended June 30, 2021 was 14.38% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

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 \$277,405 and \$246,754 for the years ended June 30, 2021 and June 30, 2020, respectively.

***Net Pension Liability***

At June 30, 2021, the Authority reported a liability of \$2,311,725 for its proportionate share of the net pension liability. The Roanoke Valley Resource Authority’s net pension liability was measured as of June 30, 2020. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2019 and rolled forward to the measurement date of June 30, 2020. The Authority’s proportionate share of same was calculated using the average creditable compensation as of June 30, 2020 and 2019 as a basis for allocation. At June 30, 2020 and 2019, the Authority’s proportion was 3.9949% and 3.9322%, 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, 2019, 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, 2020.

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.



**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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**Note 5—Pension Plan: (Continued)**

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***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, 2019 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%

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 5—Pension Plan: (Continued)**

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

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

Asset Class (Strategy)	Target Allocation	Arithmetic Long-term Expected Rate of Return	Weighted Average Long-term Expected Rate of Return*
Public Equity	34.00%	4.65%	1.58%
Fixed Income	15.00%	0.46%	0.07%
Credit Strategies	14.00%	5.38%	0.75%
Real Assets	14.00%	5.01%	0.70%
Private Equity	14.00%	8.34%	1.17%
MAPS - Multi-Asset Public Strategies	6.00%	3.04%	0.18%
PIP - Private Investment Partnership	3.00%	6.49%	0.19%
 Total	100.00%		4.64%
		Inflation	2.50%
		Expected arithmetic nominal return*	7.14%

\* The above allocation provides a one-year return of 7.14%. 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%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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, 2020, 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, 2020 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:

	<b>Rate</b>		
	<b>1% Decrease</b>	<b>Current Discount</b>	<b>1% Increase</b>
	<b>(5.75%)</b>	<b>(6.75%)</b>	<b>(7.75%)</b>
Roanoke Valley Resource Authority			
Net Pension Liability (Asset)	\$ 3,743,848	\$ 2,311,725	\$ 1,120,806

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

For the year ended June 30, 2021, the Roanoke Valley Resource Authority’s recognized pension expense of \$556,960. 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.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**Note 5—Pension Plan: (Continued)**

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

At June 30, 2021, 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	\$ 116,549	\$ 16,508
Changes in assumptions	128,589	-
Changes in proportion and differences between contributions and proportionate share of contributions	68,038	-
Net difference between projected and actual earnings on pension plan investments	276,390	-
Contributions subsequent to the measurement date	277,405	-
Totals	<u>\$ 866,971</u>	<u>\$ 16,508</u>

\$277,405 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, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
2022	\$ 185,137
2023	188,035
2024	114,069
2025	85,817
2026	-
Thereafter	-
Total	<u>\$ 573,058</u>

***Pension Plan Data***

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2020-annual-report.pdf>, or by writing to the System’s Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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, 2021.

	<u>Deferred Outflows</u>	<u>Deferred Inflows</u>	<u>Net OPEB Liability</u>	<u>OPEB Expense</u>
Authority Stand-Alone Plan	\$ 112,036	\$ 148,694	\$ 258,497	\$ 19,139
VRS OPEB Plan-Group Life Insurance Plan	51,218	8,248	163,037	5,994
Totals	<u>\$ 163,254</u>	<u>\$ 156,942</u>	<u>\$ 421,534</u>	<u>\$ 25,133</u>

**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, 2020 (measurement date), the following employees were covered by the benefit terms:

Total active employees with coverage	24
Total retiree with coverage	1
Total	<u>25</u>

***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, 2021 was \$14,730.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### *Total OPEB Liability*

The Authority's total OPEB liability was measured as of June 30, 2020. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation performed as of June 30, 2020.

#### *Actuarial Assumptions*

The total OPEB liability in the June 30, 2020 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 8.00% to 4.50% over 8 years beginning in 2021.
Salary Increases	3.50% per annum
Discount Rate	2.66% per annum

Mortality rates were as follows:

- General Retirees: SOA Pub-2010 General Headcount Weighted Mortality Table fully generational using Scale MP-2019.
- Surviving Spouses: SOA Pub-2010 Contingent Survivor Headcount Weighted Mortality Table fully generational using Scale MP-2019.
- Disabled Retirees: SOA Pub-2010 Non-Safety Disabled Retiree Headcount Weighted Mortality Table fully generational using Scale MP-2019.

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

There have been no significant changes to the actuarial assumptions since the last full valuation, which was for the fiscal year ending June 30, 2018. The following assumptions have been updated since the prior valuation:

1. Health care coverage election rate for active employees with current coverage has been updated from 61.4% to 65%. This caused an increase in liabilities.
2. Mortality tables have been updated from the following:
  - a. Pre-retirement: RP-2000, Males set forward 2 years, Females setback 3 years, projected to 2020 with Scale AA
  - b. Post-retirement: RP-2000, Females setback 1 year (no setback for Males), projected to 2020 with Scale AA
  - c. Disability: RP-2000, Males setback 3 years, no future mortality improvements

To the following:

- a. General retirees: SOA Pub-2010 General Headcount Weighted Mortality Table fully generational using Scale MP-2019
- b. Surviving Spouses: SOA Pub-2010 Contingent Survivor Headcount Weighted Mortality Table fully generational using Scale MP-2019
- c. Disabled retirees: SOA Pub-2010 Non-Safety Disabled Retiree Headcount Weighted Mortality Table fully generational using Scale MP-2019

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

***Actuarial Assumptions (Continued)***

The impact of this change was a slight reduction in liabilities.

3. Payroll growth has been updated from a flat 2.00% annually to follow the most recent tables provided in the VRS actuarial valuation as of June 30, 2019. This change caused a decrease in liabilities.
4. Retirement rates have been updated to follow the most recent tables provided in the VRS actuarial valuation as of June 30, 2019, including a distinction between Plan 1 and Plan 2/Hybrid members following the VRS tables. This change resulted in a significant decrease in liabilities.
5. Termination rates and disability rates have been updated to follow the most recent tables provided in the VRS actuarial valuation as of June 30, 2019. These changes caused a decrease and a slight increase in liabilities respectively.
6. Health care trend rate have been updated from an initial rate of 7.5% decreasing by 0.25% annually to an ultimate rate of 5.0% to an initial rate of 8.0% decreasing by 0.5% annually down to an ultimate rate of 4.5%. This update caused a slight decrease in liabilities.
7. Discount rate as of the Measurement Date is based on a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). The prior valuation used a discount rate of 2.98% as of July 1, 2019. The current full valuation uses a discount rate of 2.66% as of June 30, 2020. This change caused an increase in liabilities.

***Discount Rate***

The discount rate is 2.66% per annum.

***Changes in Total OPEB Liability***

	<u>Total OPEB Liability</u>
Balances at June 30, 2019	\$ 406,327
Changes for the year:	
Service cost	15,649
Interest	12,357
Differences between expected and actual experience	(102,262)
Changes of assumptions	(58,844)
Contributions - employer	(14,730)
Net changes	\$ (147,830)
Balances at June 30, 2020	\$ <u>258,497</u>

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

***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 (1.66%) or one percentage point higher (3.66%) than the current discount rate:

Rate		
1% Decrease (1.66%)	Current Discount (2.66%)	1% Increase (3.66%)
\$ 268,375	\$ 258,497	\$ 247,687

***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 (7.00% decreasing to 3.50% over 10 years) or one percentage point higher (9.00% decreasing to 5.50% over 10 years) than the current healthcare cost trend rates:

Healthcare Cost Trend Rate		
1% Decrease (7.00% decreasing to 3.50% over 8 years)	Current Discount (8.00% decreasing to 4.50% over 8 years)	1% Increase (9.00% decreasing to 5.50% over 8 years)
\$ 233,105	\$ 258,497	\$ 287,171

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

For the year ended June 30, 2021, the Authority recognized OPEB expense in the amount of \$19,139. At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 101,619
Changes in assumptions	97,306	47,075
Employer contributions subsequent to the measurement date	14,730	-
Total	\$ 112,036	\$ 148,694



## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### *OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources (Continued)*

\$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, 2022. 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	
2022	\$ (8,867)
2023	(5,150)
2024	(5,149)
2025	(32,222)
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):

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#### *Plan Description*

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

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

The specific information for GLI 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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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#### ***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 \$8,616 as of June 30, 2021.

#### ***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 1.34% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.80% (1.34% x 60%) and the employer component was 0.54% (1.34% 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, 2021 was 0.54% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. 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 \$26,886 and \$26,326 for the years ended June 30, 2021 and June 30, 2020, respectively.

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

At June 30, 2020, the entity reported a liability of \$163,037 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2020 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, 2020, 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, 2020 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2020 and June 30, 2019, the participating employer's proportion was 0.00098%.

For the year ended June 30, 2021, the participating employer recognized GLI OPEB expense of \$5,994. 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.

ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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)***

At June 30, 2021, the employer reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 10,457	\$ 1,464
Net difference between projected and actual earnings on GLI OPEB program investments	4,898	-
Change in assumptions	8,154	3,404
Changes in proportionate share	823	3,380
Employer contributions subsequent to the measurement date	<u>26,886</u>	<u>-</u>
Total	<u>\$ 51,218</u>	<u>\$ 8,248</u>

\$26,886 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, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
2022	\$ 2,233
2023	3,616
2024	4,750
2025	4,655
2026	826
Thereafter	4

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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***Actuarial Assumptions***

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2019, 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, 2020. 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.

**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.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

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

The actuarial assumptions used in the June 30, 2019 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.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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

***Actuarial Assumptions (Continued)***

The actuarial assumptions used in the June 30, 2019 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, 2020, NOL amounts for the GLI Plan is as follows (amounts expressed in thousands):

	<b>GLI OPEB Plan</b>
	<hr/>
Total GLI OPEB Liability	\$ 3,523,937
Plan Fiduciary Net Position	1,855,102
GLI Net OPEB Liability (Asset)	<u>\$ 1,668,835</u>
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	 52.64%

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.

**ROANOKE VALLEY RESOURCE AUTHORITY**

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

**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:

<u>Asset Class (Strategy)</u>	<u>Long-Term Target Asset Allocation</u>	<u>Arithmetic Long-term Expected Rate of Return</u>	<u>Weighted Average Long-term Expected Rate of Return*</u>
Public Equity	34.00%	4.65%	1.58%
Fixed Income	15.00%	0.46%	0.07%
Credit Strategies	14.00%	5.38%	0.75%
Real Assets	14.00%	5.01%	0.07%
Private Equity	14.00%	8.34%	1.17%
MAPS - Multi-Asset Public Strategies	6.00%	3.04%	0.18%
PIP - Private Investment Partnership	3.00%	6.49%	0.19%
 Total	 <u>100.00%</u>		 <u>4.64%</u>
		Inflation	<u>2.50%</u>
		Expected arithmetic nominal return*	<u>7.14%</u>

\*The above allocation provides a one-year return of 7.63%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

### 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 (5.75%)	Current Discount (6.75%)	1% Increase (7.75%)
Authority's proportionate share of the GLI Plan Net OPEB Liability	\$ 214,325	\$ 163,037	\$ 121,387

#### *GLI Plan Fiduciary Net Position*

Detailed information about the GLI Plan's Fiduciary Net Position is available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2020-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 36 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.



## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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### **Note 9—Accrued Landfill Closure: (Continued)**

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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 (93.372%) of the constructed cells at June 30, 2021 for the Smith Gap landfill and includes anticipated effects of changes in regulations and cost estimates. The total liability recorded at June 30, 2021, is \$16,383,973 and includes \$3,011,967 designated for the old landfill site (now closed); \$12,964,913 designated for the new Smith Gap landfill; and \$407,093 for the transfer stations. Total closure and postclosure cost for all opened landfill cells at Smith Gap is estimated at \$13,885,206, of which 93.37% has been recognized as noted above based on usage. As such, \$920,293 or 6.63% 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:**

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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, 2021.

### **Note 11—Arbitrage Rebate Compliance:**

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As of June 30, 2021 and for the year then ended, the Authority was not liable for any amounts due under current rules governing arbitrage earnings.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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### Note 12—Risk Management:

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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 2020-2021, the total premiums paid were \$45,806. 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, 2021 were \$74,581.

*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, 2021.

### Note 13—Related Party Transactions:

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The following table summarizes approximate tipping fees received and accounts receivable from charter members as of and for the year ended June 30, 2021:

	<u>Tipping Fees</u>	<u>Accounts Receivable</u>
	<u>2021</u>	<u>2021</u>
City of Roanoke	\$ 2,414,145	\$ 236,863
County of Roanoke	2,210,153	202,363
City of Salem	877,411	81,668
Town of Vinton	194,647	16,993
	<u>\$ 5,696,356</u>	<u>\$ 537,887</u>

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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### **Note 14—Subsequent Event:**

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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 2022.

Subsequent to year end, the Authority entered into negotiations with Norfolk Southern for the termination of their agreement to haul waste to the Smyth Gap Landfill. The Authority anticipates an early termination charged of \$125,000 related to same during the 2021/2022 fiscal year.

### **Note 15— Upcoming Pronouncements:**

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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. 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.

## ROANOKE VALLEY RESOURCE AUTHORITY

Notes to the Financial Statements  
As of June 30, 2021 (Continued)

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### Note 15— Upcoming Pronouncements: (Continued)

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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.

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**Required Supplementary Information**

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**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, 2020

**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)
2020	3.9949%	\$ 2,311,725	\$ 2,188,818	105.62%	79.55%
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, 2012 through June 30, 2021

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

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contributions Deficiency (Excess) (1) - (2) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (2)/(4) (5)
2021	\$ 277,405	\$ 277,405	-	\$ 2,002,539	13.85%
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%

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

**ROANOKE VALLEY RESOURCE AUTHORITY**  
Notes to Required Supplementary - Pension Plan  
For the Year Ended June 30, 2021

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

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**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, 2019 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, 2020

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
<b>Total OPEB liability</b>				
Service cost	\$ 15,649	\$ 35,740	\$ 17,674	\$ 16,832
Interest	12,357	11,758	5,803	6,048
Differences between expected and actual experience	(102,262)	-	(32,187)	(18,585)
Changes of assumptions	(58,844)	-	194,614	-
Benefit payments	(14,730)	(4,141)	(3,611)	(4,642)
<b>Net change in total OPEB liability</b>	\$ (147,830)	\$ 43,357	\$ 182,293	\$ (347)
<b>Total OPEB liability - beginning</b>	<u>406,327</u>	<u>362,970</u>	<u>180,677</u>	<u>181,024</u>
<b>Total OPEB liability - ending (a)</b>	<u>\$ 258,497</u>	<u>\$ 406,327</u>	<u>\$ 362,970</u>	<u>\$ 180,677</u>
<b>Covered-employee payroll</b>	\$ 1,420,426	\$ 1,292,095	\$ 1,266,760	\$ 1,258,150
<b>Authority's net OPEB liability (asset) as a percentage of covered payroll</b>	18.20%	31.45%	28.65%	14.36%

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

**ROANOKE VALLEY RESOURCE AUTHORITY**  
Notes to Required Supplementary Information  
Post Employment Health Coverage  
For the Year Ended June 30, 2021

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Valuation Date: 6/30/2020  
Measurement Date: 6/30/2020

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	2.66% per annum
Inflation	2.50% per year
Healthcare Trend Rate	Graded down from 8.00% to 4.50% over 8 years beginning in 2021.
Salary Increase Rates	3.50% per annum
Retirement Age	The average age at retirement is 60.

Mortality Rates	General Retirees: SOA Pub-2010 General Headcount Weighted Mortality Table fully generational using Scale MP-2019. Surviving Spouses: SOA Pub-2010 Contingent Survivor Headcount Weighted Mortality Table fully generational using Scale MP-2019. Disabled Retirees: SOA Pub-2010 Non-Safety Disabled Retiree Headcount Weighted Mortality Table fully generational using Scale MP-2019.
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**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, 2020

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)
2020	0.00098%	\$ 163,037	\$ 2,188,818	7.45%	52.64%
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, 2021

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contributions Deficiency (Excess) (1) - (2) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (2)/(4) (5)
2021	\$ 26,886	\$ 26,886	-	\$ 2,002,539	1.34%
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.

**ROANOKE VALLEY RESOURCE AUTHORITY**  
Notes to Required Supplementary Information  
Group Life Insurance (GLI) Plan  
For the Year Ended June 30, 2021

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**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, 2019 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%

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**STATISTICAL SECTION**

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ROANOKE VALLEY RESOURCE AUTHORITY

Net Position by Component  
Last Ten Fiscal Years  
(unaudited)  
(accrual basis of accounting)

	Fiscal Year									
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Net investment in capital assets	\$ 8,861,198	\$ 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
Unrestricted	(5,417,836)	(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
Total primary government net position	\$ 3,443,362	\$ 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

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			Special Items	Change in Net Position
				Nonoperating Revenues/ (Expenses)	Income/(Loss) before Special Items	Income/(Loss)		
2021	\$ 13,691,451	\$ 18,775,561	\$ (5,084,110)	\$ (626,704)	\$ (5,710,814)	\$ -	\$ (5,710,814)	
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)	

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		Miscellaneous Fees	Total Revenues
					Homeowner Revenue	Revenue		
2021	\$ 5,696,356	\$ 4,288,829	\$ 2,765,597	\$ 102,676	\$ 682,466	\$ 155,527	\$ 13,691,451	
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	

Source: RVRTA audited financial statements

Table 4

## ROANOKE VALLEY RESOURCE AUTHORITY

Operating Expenses  
Last Ten Fiscal Years  
(unaudited)  
(accrual basis of accounting)

	Fiscal Year									
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Salaries and Benefits	\$ 3,519,666	\$ 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
Landfill Closure and Postclosure	739,061	750,134	(1,006,653)	1,976,295	1,512,073	438,484	222,415	1,217,034	2,298,948	(164,307)
Other operating expenses	10,343,356	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
Depreciation	4,173,478	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
<b>Total Operating Expenses</b>	<b>\$ 18,775,561</b>	<b>\$ 17,513,285</b>	<b>\$ 15,066,541</b>	<b>\$ 16,150,782</b>	<b>\$ 13,134,353</b>	<b>\$ 9,241,885</b>	<b>\$ 9,455,022</b>	<b>\$ 9,680,144</b>	<b>\$ 10,327,241</b>	<b>\$ 7,660,234</b>

Source: RYRA 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	Gain (Loss) on Sale of Assets	Interest and Fiscal Charges	Total Non-Operating Income (Expenses)
2021	\$ 24,266	\$ -	\$ (650,970)	(626,704)
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

Source: RVRA audited financial statements

Table 6

**ROANOKE VALLEY RESOURCE AUTHORITY**  
 Annual Tonnage Received  
 Last Ten Fiscal Years  
 (unaudited)  
 (accrual basis of accounting)

<b>Fiscal Year</b>	<b>Municipal Tonnage</b>	<b>Commercial Tonnage</b>	<b>Private Tonnage</b>	<b>Residential Tonnage</b>	<b>Total Tonnage</b>
2021	108,815	67,076	44,011	12,683	232,585
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

Source: RVRA reports provided by staff

Table 7

## ROANOKE VALLEY RESOURCE AUTHORITY

Principal Customers

(unaudited)

(accrual basis of accounting)

	FY 2021		FY 2012	
	Revenue Amount	Percentage of Total	Revenue Amount	Percentage of Total
City of Roanoke	\$ 2,414,145	17.72%	\$ 1,974,498	26.64%
County of Roanoke	2,210,153	16.22%	1,802,137	24.32%
Waste Management Inc	194,163	1.42%	668,562	9.02%
First Piedmont Corporation	518,416	3.80%	513,800	6.93%
Affordable Container Service	280,728	2.06%	134,050	1.81%
City of Salem	877,411	6.44%	N/A	-
Tidy Services	768,721	5.64%	125,986	1.70%
Residential Disposal Program	682,465	5.01%	398,057	5.37%
Republic Services	690,636	5.07%	44,132	0.60%
Town of Vinton	194,647	1.42%	157,073	2.12%
Subtotal largest customers	8,831,485	64.50%	5,818,295	76.95%
Balance From other Customers	4,859,966	35.19%	1,743,072	21.49%
Grand Totals	\$ 13,691,451	100.00%	\$ 7,561,367	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)

<b>Fiscal Year</b>	<b>Municipal Rate</b>	<b>Commercial Rate</b>	<b>Private Rate</b>	<b>Residential Rate</b>
2021	\$ 53.50	\$ 62.75	\$ 62.75	\$ 53.50
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

Source RVRA Budget Book

Table 9

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

Fiscal Year	Revenue Bonds and Locality Compensation Payments	Capital Leases	Roanoke County		Roanoke City		Vinton		City of Salem*	
			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
2021	\$ 27,838,501	\$ -	\$ 287	0.54%	\$ 278	0.61%	\$ 3,435	0.54%	\$ 1,098	0.54%
2020	18,767,294	-	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%

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

Table 10

## ROANOKE VALLEY RESOURCE AUTHORITY

Pledged Revenue Coverage

Last Ten Fiscal Years

(Unaudited)

Fiscal Year	Operating Revenues	Investment Income	Miscellaneous Income	Gross Revenues	Less: Operating Expenses (excluding depreciation and change in future landfill liability)	Debt Service			Total Debt Service	Less: 100% Debt Service	Net Available Revenues
						Principal	Interest	Service			
2021	\$ 13,691,451	\$ 24,266	-	\$ 13,715,717	\$ 13,976,244	\$ 826,888	\$ 451,208	\$ 1,278,096	\$ 1,278,096	\$ -	\$ (1,538,623)
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

Notes: \*The Authority did not have any debt outstanding from 2012 through 2016.

During the fiscal year ending June 30, 2021, the Authority began transitioning from a rail based to a road based transporter of waste. This transition increased operating expenses by \$2,421,107 as waste was temporarily delivered to another landfill. The aforementioned operating expenses were related to additional transportation and disposal cost that will not be incurred upon the completion of a road to the Smith Gap Landfill. The net available revenues would have been \$882,484 if these transition expenses were not included in the above calculation.

Source: RVRA financial and budget records.



Table 11

**ROANOKE VALLEY RESOURCE AUTHORITY**  
Demographic Information  
Last Ten Fiscal Years  
(Unaudited)

Fiscal Year	Roanoke County				Roanoke City			
	Population	Personal Income *	Per Capita Income	Unemployment Rate	Population	Personal Income	Per Capita Income	Unemployment Rate
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	6,254,966,000	52,248	7.0%	99,920	4,341,578,000	43,451	4.7%
2021	96,929	6,391,212,000	53,489	3.6%	100,011	4,488,860,000	45,277	5.3%

Fiscal Year	Vinton				City of Salem*			
	Population	Personal Income	Per Capita Income	Unemployment Rate	Population	Personal Income	Per Capita Income	Unemployment Rate
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	6,254,966,000	52,248	8.1%	25,301	6,254,966,000	52,248	9.1%
2021	8,104	6,391,212,000	53,489	3.6%	25,301	6,391,212,000	53,489	4.0%

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 during the fiscal year ending June 30, 2017.

Table 12

**ROANOKE VALLEY RESOURCE AUTHORITY**  
Principal Employers  
(unaudited)  
Fiscal Years 2021 and 2012

Employer	2021			2012		
	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	6	Private	500-999
Friendship Retirement Community	5	Private	500-999	7	Private	500-999
Richfield Recovery & Care Center	6	Private	500-999	10	Private	250-499
Elbit Systems Ltd.	7	Private	500-999	-	-	-
Marvin Windows and Doors	8	Private	500-999	-	-	-
Allstate Insurance Company	9	Private	500-999	4	Private	1,000+
Walmart	10	Private	250-499	-	-	-
ITT Industries	-	-	-	5	Private	500-999
Hollins University	-	-	-	8	Private	250-499
Berkshire Health Care Center	-	-	-	9	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									
	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Administration</b>										
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	1
<b>Operating</b>										
Supervisors	5	5	3	3	3	2	2	2	2	2
Scale Operators	3	3	3	3	3	1	1	1	1	1
Equipment Operators	27	27	25	24	24	18	18	16	17	17
Building and General Maintenance	1	1	1	1	1	1	1	1	1	1
Equipment Mechanic	-	-	-	1	1	1	1	1	1	1
<b>Total Employees</b>	<b>42</b>	<b>42</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>29</b>	<b>29</b>	<b>27</b>	<b>28</b>	<b>28</b>

Source: RVRA Budget Book

Table 14

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

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Waste Received in tons	232,585	241,258	262,992	252,163	221,164	163,903	158,739	160,573	164,807	152,506
Materials Recycled in tons (equals total above)										
Wood	12,671	11,564	11,921	10,311	10,304	11,344	8,463	11,407	18,720	11,837
Metal	523	492	497	494	371	262	182	187	170	228
Tires	915	898	671	600	418	299	259	315	238	256
Other (batteries, cardboard, glass, newspapers)	5	16	27	59	46	43	40	47	27	44
Landfilled	218,471	228,288	249,876	240,699	210,025	151,955	149,795	148,617	145,652	140,141
Percent Recycled	6.07%	5.38%	5.00%	4.54%	5.03%	7.30%	5.63%	7.45%	11.62%	8.11%
Residential Waste Disposal										
Tonnage	12,684	10,729	11,806	10,846	10,158	9,329	8,541	9,020	10,076	9,472
Tires (Count)	1,590	1,381	1,950	2,289	1,715	1,971	1,505	1,397	1,451	1,893
Transactions	51,315	43,506	47,617	44,355	41,132	37,911	34,500	36,441	40,600	37,284
Disposal Fees	\$ 682,465	\$ 537,178	\$ 538,454	\$ 470,648	\$ 424,074	\$ 420,724	\$ 438,101	\$ 390,324	\$ 386,633	\$ 398,057
Disposal Fees										
Municipal Rate	\$ 53.5	\$ 53.5	\$ 51.5	\$ 49.5	\$ 49.5	\$ 49.5	\$ 49.0	\$ 47.0	\$ 45.0	\$ 45.0
Commercial Rate	\$ 62.75	\$ 61.5	\$ 61.5	\$ 59.5	\$ 59.5	\$ 59.5	\$ 59.0	\$ 57.0	\$ 55.0	\$ 55.0
Private Rate	\$ 62.75	\$ 61.5	\$ 61.5	\$ 59.5	\$ 59.5	\$ 59.5	\$ 59.0	\$ 57.0	\$ 55.0	\$ 55.0
Residential Rate	\$ 53.5	\$ 53.5	\$ 51.5	\$ 49.5	\$ 49.5	\$ 49.5	\$ 49.0	\$ 47.0	\$ 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	2,014	3,084	2,934	3,449	2,979	2,361	2,172	2,258	2,231	2,142
Tonnage	142,935	212,181	201,352	230,434	196,743	150,597	148,908	146,309	145,448	139,066
Average	70.97	68.80	68.63	66.81	66.04	63.79	68.56	64.80	65.19	64.92
Shipping Cost	\$ 1,875,591	\$ 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
Capital Indicators										
Number of Permitted Sites	4	4	4	4	4	3	3	3	3	3
Number of Open Permitted Sites	3	3	3	3	3	2	2	2	2	2
Number of Collection sites	3	3	3	3	3	2	2	2	2	2

Source: Roanoke Valley Resource Authority records

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**COMPLIANCE SECTION**

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**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***

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**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, 2021, 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 3, 2021.

**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 2021-001 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 statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## 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 3, 2021

Roanoke Valley Resource Authority

Schedule of Findings and Responses  
For the Year Ended June 30, 2021

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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

2021-001

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

<u>2020-001 (Significant Deficiency)</u>	Recurring in the current year as 2021-001.
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