# FREDERICK-WINCHESTER SERVICE AUTHORITY

**Winchester, Virginia**

**FINANCIAL REPORT**

**JUNE 30, 2020**

**FREDERICK-WINCHESTER**
**SERVICE AUTHORITY**

**DIRECTORY OF PRINCIPAL OFFICIALS**
**June 30, 2020**

## DIRECTORS

John A. Willingham, Chairman
James R. Wilkins, III, Vice Chairman
Ned M. Cleland, PhD, P.E., Secretary/Treasurer
John B. Schroth
Wellington H. Jones
Corey Sullivan
Jose I. Fernandez
Eric R. Lawrence
Ronald Mislowsky

## EXECUTIVE DIRECTOR

Richard S. Helm

## INDEPENDENT AUDITORS

Yount, Hyde & Barbour, P.C.

C O N T E N T S

YHB CPAs & Consultants
50 South Cameron St.
Winchester, VA 22601
540.662.3417
YHBcpa.com
540.662.4211

# INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Frederick-Winchester Service Authority
Winchester, Virginia

## Report on the Financial Statements

We have audited the accompanying financial statements of Frederick-Winchester Service Authority (the Authority), as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

## Management's Responsibility for the Financial Statements

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

## Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

## Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of Frederick-Winchester Service Authority, as of June 30, 2020 and 2019, and the respective changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## Other Matters

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedules of Changes in Employer's Proportionate Share of Net Pension Liability and Related Ratios, Schedules of Employer Pension Contributions, Schedules of Employer's Proportionate Share of Net OPEB Liabilities and Related Ratios, Schedule of Changes in Employer's Proportionate Share of Net HIC OPEB Liability and Related Ratios, and Schedules of OPEB Contributions, and related notes to the required supplementary information be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Frederick-Winchester Service Authority's basic financial statements. The supplementary schedules of capital assets and future debt requirements are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplementary schedules of capital assets and future debt requirements 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 November 24, 2020 on our consideration of the Frederick-Winchester Service 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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Frederick-Winchester Service Authority's internal control over financial reporting and compliance.

Yount, Hyde & Barbour, P.C.

Winchester, Virginia
November 14, 2020

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Management's Discussion and Analysis**
**Year Ended June 30, 2020**

The following Management's Discussion and Analysis (MD&A) of the Frederick-Winchester Service Authority's (FWSA) financial performance provides the reader with an overview to the financial position and activities of the FWSA for the fiscal year ended June 30, 2020.

As an introduction to the FWSA's activities and purpose, the following narrative provides an overview of the organization and the role that the FWSA plays in providing, to the region, an essential environmental service of wastewater treatment and water reclamation.

**Introduction – Frederick-Winchester Service Authority's Purpose**

The Frederick-Winchester Service Authority was created in 1974 by action taken by the City of Winchester and the County of Frederick, Virginia. The Authority is a public body existing under the provisions of the Virginia Water and Waste Authorities Act that is part of the Code of Virginia (1950) as amended.

At its inception, the Authority had three distinct purposes for its creation. Those purposes were to provide water production, wastewater treatment, and refuse disposal for the City of Winchester and Frederick County. Those purposes were restricted to exclude water distribution, sewage collection, and garbage and refuse collection. The Authority can be viewed to this day as a "wholesaler" of environmental services. Through addendums made to the original resolution that brought the Frederick-Winchester Service Authority into existence, all responsibilities for supplying drinking water have been eliminated.

Although the City of Winchester and the County of Frederick established the Frederick-Winchester Service Authority, they do not exercise any oversight responsibilities. All policy and financial responsibilities lay in the hands of the Board of the Frederick-Winchester Service Authority.

The Board of the Frederick-Winchester Service Authority is made up of nine members. The Common Council of the City of Winchester and the Board of Supervisors of the County of Frederick make appointments to the Board. Presently the City appoints five members and the County three members. The City and County appoint the ninth member jointly.

The Board may exercise all powers granted to it under the provisions of the Virginia Water and Waste Authorities Act. Some of the significant powers are:

1. Adopt, amend or repeal bylaws, rules and regulations
2. Issue revenue bonds of the authority
3. Fix, charge and collect rates, fees and charges
4. Enter into contracts.

**Overview of Activities**

Frederick-Winchester Service Authority's activities are greatly influenced by the growth of the region and the need for additional wastewater treatment capacity to accommodate this growth in an environmental responsible manner. Through agreements with the City of Winchester and the Frederick Water, which cover operations of facilities, capital cost recovery and the manner in which the FWSA will provide additional infrastructure, the FWSA serves as the planning agency for wastewater facilities.

To accomplish its set forth purpose, FWSA analyzes capacity needs, undertakes design, and construction of facility improvements and/or expansion to meet needs and regulatory requirements. The FWSA also acquires the financing and sets agreement terms, fees and charges that will provide adequate funds to satisfy debt and operational costs.

Through the foresight of the Frederick-Winchester Service Authority, the City of Winchester and Frederick Water, which is responsible for water and wastewater service for residents, the parties unanimously approved and endorsed undertaking of a state of the art Waste to Energy facility. This undertaking progressed to the construction phase starting in May 2014. The facility became fully operational in April 2018. To fuel the Waste to Energy process, this facility began the acceptance of high strength waste, fats oils and grease wastes along with outside municipal sludge.

The acceptance and treatment of these types of waste is bringing two benefits to reality. FWSA will have created a new outside revenue stream through tipping fees charged. At present, FWSA has entered long term contracts with a number of local and regional businesses which are on course to bring in up to a million dollars in new revenue annually. It is also envisioned that the Waste to Energy Facility will promote economic development for the community and region.

Secondly, the Waste to Energy Project will allow FWSA to treat "green waste" materials outside of the traditional wastewater treatment process. This addition to the Opequon Water Reclamation Facility will allow for the facility to utilize "energy packed" waste to produce electricity and heat energy that will have a significant long-term impact on controlling the operating expense of the treatment facility.

These savings will be derived from reduction heating fuel for processing and in electrical purchases from the electric grid with onsite electrical generation.

After several tumultuous years of operation, the Waste to Energy process approached a welcomed year of "normalcy". A relatively consistent product mix and process experience led to a financial picture that had far fewer concerning trends. The Statement of Revenues and Expenses and Changes in Net Positions show that expenditures for electricity and chemicals were reduced and the landfill fees stabilized.

**Financial Analysis – Frederick-Winchester Service Authority**

The FWSA Board presents three basic financial statements for the purpose of analyzing the financial position of the FWSA as of June 30, 2020. These are: (1) Statements of Net Position; (2) Statements of Revenues, Expenses and Changes in Net Position; and (3) Statements of Cash Flows.

FWSA's financial position is measured in terms of resources (assets) owned and obligations (liabilities) owed as of June 30. This information is reflected in the Statements of Net Position. It can be seen from the following Summary Statement of Net Position that the FWSA has had a significant investment in facilities and an increase in net position but a major portion of those assets are restricted and will, for years, be reflected in debt obligations of FWSA.

With an environment for growth in the community, FWSA debt obligations will start to be shared by a broader base of existing and new customers that are connecting to the wastewater systems owned and operated by the City of Winchester and Frederick Water. This is an encouraging sign that will turn excess capacity, built during the Chesapeake Bay Initiative, into productive capacity that will bring revenue to the City and County through impact fees that will recover capital investment in the treatment facilities and start the generation of service fees to offset operational expenditures.

**Financial Position**: A summary of FWSA's Statements of Net Position for fiscal years 2020, 2019 and 2018 is presented below.

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Current assets | $ 5,893,083 | $ 3,950,530 | $ 4,174,032 |
| Current restricted assets | 13,832,966 | 15,031,172 | 14,756,145 |
| Noncurrent assets | 1,000 | 1,000 | - - |
| Noncurrent restricted assets | 2,394,256 | 2,361,105 | 2,314,247 |
| Capital assets | 128,445,492 | 133,173,098 | 137,916,293 |
| Deferred outflows | 1,452,502 | 1,437,035 | 1,534,247 |
| Total assets and deferred outflows | $ 152,019,299 | $ 155,953,940 | $ 160,694,964 |
| Current liabilities | $ 928,885 | $ 824,284 | $ 861,035 |
| Current liabilities payable from current restricted assets | 6,094,793 | 6,356,281 | 5,934,622 |
| Long-term liabilities | 95,191,022 | 100,699,386 | 106,500,017 |
| Deferred inflows | 60,852 | 107,007 | 162,672 |
| Total liabilities and deferred inflows | $ 102,275,552 | $ 107,986,958 | $ 113,458,346 |
| Net Assets: | | | |
| Invested in capital assets | $ 29,781,386 | $ 28,886,734 | $ 28,465,218 |
| Restricted | 15,278,712 | 16,398,935 | 16,033,137 |
| Unrestricted | 4,683,649 | 2,681,313 | 2,738,263 |
| Total net assets | $ 49,743,747 | $ 47,966,982 | $ 47,236,618 |
| Total liabilities, deferred inflows and net assets | $ 152,019,299 | $ 155,953,940 | $ 160,694,964 |

The financial position of the FWSA remains strong and stable as of June 30, 2020. With both biological and flow capacities expanded along with enhancements dictated by regulatory requirements the FWSA has put in place adequate capital assets to address system growth over the next 15 years.

Information presented in the Statements of Revenues, Expenses and Changes in Net Position reflects the result of operations during the fiscal years 2020, 2019 and 2018 as reported. This statement reflects total revenues and total expenses for the fiscal years ended June 30, 2020, 2019 and 2018 and reflect excess or deficiency of revenue over expenses for each year.

**Revenues, Expenses and Changes in Net Position:** A summary of FWSA's Statement of Revenues, Expenses and Changes in Net Position for fiscal years 2020, 2019 and 2018 is presented below.

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Service fees | $ 13,546,616 | $ 12,870,861 | $ 11,291,787 |
| Operating expenses | 11,190,709 | 11,513,357 | 9,785,371 |
| Operating income | $ 2,355,907 | $ 1,357,504 | $ 1,506,416 |
| Net non-operating income (expense) | (579,142) | (627,140) | 978,801 |
| Change in net position | $ 1,776,765 | $ 730,364 | $ 2,485,217 |

Operating income is generated by providing wastewater treatment services to the City of Winchester and Frederick Water along with collecting revenues from septage hauler fees and industrial surcharges and High Strength Waste customers. High Strength Waste revenue for FY18 was $772,628 and FY19 was $858,613. High Strength Waste billings for FY20 were $949,871.

Although FWSA has been able to contain operating expenses, the FWSA will need to continue to evaluate and improve operational efficiencies and techniques to relieve upward pressure on future rates. Concentrated efforts, both internal and with outside engineering support, are under way to evaluate and improve the use and expense of chemicals, the finished water content of sludge and the optimal level of High Strength Waste that affords financial health while protecting the core operation of the OWRF. The Board felt that the revenue stream from our High Strength Waste customers was vulnerable should we have a catastrophic failure in our intake process. Design and construction documents are in their final stages to construct a redundant and more robust receiving station. Further, the Board has undertaken a thorough review of rates and organizational structure to assure our customers that they are being efficiently served.

Questions concerning information provided in this report or requests for additional financial information should be directed to the FWSA's Executive Director at 540-722-3579 or by mail to Frederick-Winchester Service Authority, P.O. Box 43, Winchester, Virginia 22604.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Statements of Net Position**
June 30, 2020 and 2019

| **Assets** | **2020** | **2019** |
|---|---|---|
| **Current Assets** | | |
| Cash and cash equivalents | $ 4,376,721 | $ 2,509,673 |
| Accounts receivable, net of allowance | 1,510,362 | 1,439,857 |
| Prepaid expenses | 6,000 | 1,000 |
| Total current assets | $ 5,893,083 | $ 3,950,530 |
| **Current Restricted Assets** | | |
| Bond principal and interest funds held by trustee | $ 12,708,328 | $ 13,868,390 |
| Cash and cash equivalents - Parkins Mill reserve fund | 930,427 | 970,194 |
| Investments - Parkins Mill reserve fund | 193,459 | 191,115 |
| Interest receivable | 752 | 1,473 |
| Total current restricted assets | $ 13,832,966 | $ 15,031,172 |
| **Noncurrent Assets,** security deposit | $ 1,000 | $ 1,000 |
| **Noncurrent Restricted Assets** | | |
| Cash and investment funds held by trustee: | | |
| Revenue fund | $ 1,271 | $ - - |
| Bond interest | 1,341,543 | 2,214,936 |
| Bond principal | 4,033,960 | 4,417,867 |
| Debt service reserve | 6,800,934 | 6,706,358 |
| Improvement and redemption | 2,924,876 | 2,890,334 |
| Total | $ 15,102,584 | $ 16,229,495 |
| Less: Amount included in current restricted assets | (12,708,328) | (13,868,390) |
| Net noncurrent restricted assets | $ 2,394,256 | $ 2,361,105 |
| **Capital Assets** | | |
| Land | $ 482,405 | $ 482,405 |
| Construction in progress | 445,930 | - - |
| Property, plant, and equipment | 218,079,552 | 217,857,256 |
| Total | $ 219,007,887 | $ 218,339,661 |
| Less: Accumulated depreciation | (90,562,395) | (85,166,563) |
| Net capital assets | $ 128,445,492 | $ 133,173,098 |
| Total assets | $ 150,566,797 | $ 154,516,905 |
| **Deferred Outflows of Resources** | | |
| Collective deferred outflows related to OPEB | $ 51,112 | $ 29,344 |
| Collective deferred outflows related to Pension | 200,019 | 97,207 |
| Unamortized amounts from loss on refunding of debt | 1,201,371 | 1,310,484 |
| Total deferred outflows of resources | $ 1,452,502 | $ 1,437,035 |
| Total assets and deferred outflows | $ 152,019,299 | $ 155,953,940 |

See Notes to Financial Statements.

**Liabilities**

| | 2020 | 2019 |
|---|---|---|
| **Current Liabilities (payable from current assets)** | | |
| Accounts payable | $ 853,759 | $ 705,765 |
| Accrued vacation pay | 75,126 | 118,519 |
| Total current liabilities (payable from unrestricted assets) | $ 928,885 | $ 824,284 |
| | | |
| **Current Liabilities (payable from restricted assets)** | | |
| Bonds payable - current | $ 5,146,283 | $ 5,362,939 |
| Interest payable | 948,510 | 993,342 |
| Total current liabilities (payable from restricted assets) | $ 6,094,793 | $ 6,356,281 |
| | | |
| **Long-Term Liabilities** | | |
| Bonds payable | $ 94,719,194 | $ 100,233,909 |
| Net pension liability | 360,968 | 339,407 |
| Net other post-employment benefits (OPEB) liability | 110,860 | 126,070 |
| Total long-term liabilities | $ 95,191,022 | $ 100,699,386 |
| Total liabilities | $ 102,214,700 | $ 107,879,951 |
| | | |
| **Deferred Inflows of Resources** | | |
| Collective deferred inflows related to OPEB | $ 16,787 | $ 13,193 |
| Collective deferred inflows related to pension | 44,065 | 93,814 |
| Total deferred inflows of resources | $ 60,852 | $ 107,007 |
| | | |
| **Net Position** | | |
| Invested in capital assets, net of related debt | $ 29,781,386 | $ 28,886,734 |
| Restricted | 15,278,712 | 16,398,935 |
| Unrestricted | 4,683,649 | 2,681,313 |
| Total net position | $ 49,743,747 | $ 47,966,982 |
| Total liabilities, deferred inflows of resources and net position | $ 152,019,299 | $ 155,953,940 |

## FREDERICK-WINCHESTER SERVICE AUTHORITY

### Statements of Revenues, Expenses and Changes in Net Position

Years Ended June 30, 2020 and 2019

| | 2020 | 2019 |
|---|---|---|
| **Operating Revenues** | | |
| Opequon service fees, City of Winchester | $ 6,305,868 | $ 6,141,100 |
| Opequon service fees, Frederick Water | 5,538,362 | 5,220,332 |
| Other | 1,702,386 | 1,509,429 |
| Total operating revenues | $ 13,546,616 | $ 12,870,861 |
| **Operating Expenses** | | |
| Personnel compensation | $ 1,393,188 | $ 1,388,346 |
| Fringe benefits | 209,809 | 172,994 |
| Repairs and maintenance | 1,001,964 | 886,456 |
| Electric power | 376,438 | 493,474 |
| Insurance | 7,428 | 16,267 |
| Property insurance | 75,002 | 73,953 |
| Landfill fees | 815,039 | 802,090 |
| Chemicals | 1,179,577 | 1,576,205 |
| Other operating expenses | 393,434 | 392,262 |
| General and administrative | 323,098 | 314,047 |
| Depreciation expense | 5,415,732 | 5,397,263 |
| Total operating expenses | $ 11,190,709 | $ 11,513,357 |
| Operating income | $ 2,355,907 | $ 1,357,504 |
| **Nonoperating Revenues (Expenses)** | | |
| Parkins Mill service fees, Frederick Water | $ 2,493,964 | $ 2,493,964 |
| Interest and investment income | 211,246 | 304,613 |
| Realized and unrealized gains on investments, net | 16,057 | 19,358 |
| Interest expense, Opequon | (2,760,793) | (2,865,595) |
| Interest expense, Parkins Mill | (548,361) | (596,480) |
| Gain on disposal of capital assets | 8,745 | 17,000 |
| Total nonoperating (expenses) | $ (579,142) | $ (627,140) |
| Change in net position | $ 1,776,765 | $ 730,364 |
| Net position, beginning of year | 47,966,982 | 47,236,618 |
| Net position, end of year | $ 49,743,747 | $ 47,966,982 |

See Notes to Financial Statements.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Statements of Cash Flows**

Years Ended June 30, 2020 and 2019

| | 2020 | 2019 |
|---|---|---|
| **Cash Flows from Operating Activities** | | |
| Cash received from customers | $ 15,970,075 | $ 14,727,463 |
| Cash payments to suppliers for goods and services | (3,983,974) | (4,546,576) |
| Cash payments to employees for services | (1,855,787) | (1,737,070) |
| Net cash provided by operating activities | $ 10,130,314 | $ 8,443,817 |
| **Cash Flows from Capital and Related Financing Activities** | | |
| Purchase of capital assets | $ (688,126) | $ (654,068) |
| Principal payments on long-term debt | (5,362,939) | (4,897,367) |
| Proceeds from sale of property, plant and equipment | 8,745 | 17,000 |
| Interest on long-term debt | (3,613,305) | (3,773,332) |
| Net cash (used in) capital and related financing activities | $ (9,655,625) | $ (9,307,767) |
| **Cash Flows from Investing Activities** | | |
| Interest and investment income received | $ 211,967 | $ 304,128 |
| Net sales of investments | 1,140,625 | (336,977) |
| Net cash provided by (used in) provided by investing activities | $ 1,352,592 | $ (32,849) |
| Net increase (decrease) in cash and cash equivalents | $ 1,827,281 | $ (896,799) |
| Cash and cash equivalents, beginning of year | 3,479,867 | 4,376,666 |
| Cash and cash equivalents, end of year | $ 5,307,148 | $ 3,479,867 |
| **Reconciliation of Cash and Cash Equivalents** | | |
| Unrestricted | $ 4,376,721 | $ 2,509,673 |
| Restricted: Parkins Mill reserve | 930,427 | 970,194 |
| Total cash and cash equivalents | $ 5,307,148 | $ 3,479,867 |

See Notes to Financial Statements.

## FREDERICK-WINCHESTER SERVICE AUTHORITY

### Statements of Cash Flows (continued)

Years Ended June 30, 2020 and 2019

| | 2020 | 2019 |
|---|---|---|
| **Reconciliation of Operating Income to Net Cash Provided by Operating Activities** | | |
| Operating income | $ 2,355,907 | $ 1,357,504 |
| Adjustments to reconcile operating income to net cash provided by operating activities: | | |
| Depreciation | 5,415,732 | 5,397,263 |
| Nonoperating service fees | 2,493,964 | 2,493,964 |
| Net change in pension related adjustments | (152,562) | (56,283) |
| Net change in OPEB related adjustments | (18,174) | (14,298) |
| Changes in assets and liabilities: | | |
| (Increase) in accounts receivable | (70,505) | (637,362) |
| (Increase) in prepaid expenses | (5,000) | (1,000) |
| (Increase) in security deposit | - - | (1,000) |
| Increase (decrease) in pension plan liability | 21,561 | (63,749) |
| Increase (decrease) in accounts payable | 147,994 | (61,210) |
| (Decrease) increase in accrued vacation pay | (43,393) | 24,459 |
| (Decrease) increase in net OPEB liability | (15,210) | 5,529 |
| Net cash provided by operating activities | $ 10,130,314 | $ 8,443,817 |

See Notes to Financial Statements.

## Note 1. Nature of Business and Reporting Entity

### Nature of Business

The Frederick-Winchester Service Authority (the Authority) is a Virginia corporation organized and existing under the provisions of the Virginia Water and Sewer Authorities Act, (Sec. 15.2-5100) Code of Virginia, 1950, (as amended). As such, the Authority is in the business to acquire, construct, operate and maintain facilities for providing regional sewage treatment and solid waste disposal services.

### Reporting Entity

The Authority is considered a related organization of the City of Winchester and the County of Frederick for financial reporting purposes. The Authority's Board members are appointed by the respective localities; however, the City and County exercise no oversight responsibility and the Authority's Board approves its own budget and appoints management. The City and County accountability for the Authority does not extend beyond making the appointments to the Board. No other entities are included in this report since the Board has no oversight or management control over any other entities.

## Note 2. Summary of Significant Accounting Policies

### Financial Statement Presentation

The accompanying financial statements are prepared in accordance with pronouncements issued by the Governmental Accounting Standards Board (GASB). The principles prescribed by GASB represent generally accepted accounting principles applicable to governmental units.

### Basis of Accounting

The Authority utilizes the enterprise fund method of accounting for financial reporting purposes. Enterprise fund accounting uses the accrual basis of accounting where revenues are recorded when earned and expenses are recorded when incurred, regardless of when the cash flows occur.

The Authority applies all GASB pronouncements as well as the Financial Accounting Standards Board (FASB) pronouncements issued on or before November 30, 1989 unless these pronouncements conflict with or contradict GASB pronouncements.

### Cash and Cash Equivalents

For purposes of reporting cash flows, cash and cash equivalents include unrestricted cash on hand, certificates of deposit, and money market funds.

## Note 2. Summary of Significant Accounting Policies (continued)

### Investments

Investments are reported at fair value, with changes in fair value recognized as unrealized gains or losses. Fair value is determined by reference to quoted market prices.

### Capital Assets

The Authority's land, property, and equipment are capitalized at cost in the year incurred. The Authority utilizes a capitalization threshold of $5,000 for the recording of capital assets. Normal repairs and maintenance are expensed as incurred. Any gain or loss on the sale or disposition of property is recognized in the current period. Projects not in service are carried as construction in progress. Interest is capitalized on construction costs, where applicable. Depreciation is calculated on a straight-line basis over the following estimated useful lives:

| | Years |
|---|---|
| Plant | 30-40 |
| Trunk line | 40 |
| Facilities plan | 20 |
| Design | 20 |
| Other engineering fees | 20 |
| Structures and improvements | 10-20 |
| Equipment, furniture and fixtures | 5-7 |
| Vehicles | 4-7 |

### Use of Estimates

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

### Operating and Nonoperating Revenues and Expenses

Operating revenues and expenses are defined as those items that result from providing services, and include all transactions and events which are not capital and related financing, noncapital financing or investing activities. Nonoperating revenues are defined as grants, investment income and other income. Nonoperating expenses are defined as noncapital related financing and other expenses.

## Note 2. Summary of Significant Accounting Policies (continued)

### Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Political Subdivision's Retirement Plan and the additions to/deductions from the Political Subdivision'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.

### Fair Value of Financial Instruments

The Authority categorized its fair value measurement within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. See Note 4 for additional fair value detail.

Level 1 – Inputs are quoted prices in active markets for identical assets.

Level 2 – These are quoted market prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other than quoted prices that are not observable.

Level 3 – These are unobservable inputs, such as property valuation or an appraisal.

### Reclassification

Certain amounts in the prior period June 30, 2019 financial statements have been reclassified to conform to the presentation of the current period June 30, 2020 financial statements. These reclassifications had no effect on the previously reported net position.

## Note 3. Deposits and Investments

### Deposits

All cash of the Authority is maintained in accounts collateralized in accordance with the Virginia Security for Public Deposits Act (a multiple financial institution collateral pool), Section 2.2-400 et. seq. of the Code of Virginia or covered by federal depository insurance. Under the Act, banks holding public deposits in excess of the amounts insured by FDIC must pledge collateral in the amount of 50% of excess deposits to a collateral pool in the name of the State Treasury Board. Savings and loan institutions are required to collateralize 100% of deposits in excess of FDIC limits. Deposits covered by the Act are considered insured since the Treasury Board is authorized to make additional assessments.

## Note 3. Deposits and Investments (continued)

### Investments

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

The Authority's investments are subject to interest rate, credit, concentration of credit, and custodial credit risk as described herein.

### Interest Rate Risk

The Authority's restricted investments as of June 30, 2020 and 2019 are classified by interest rate risk as detailed below:

**2020**

| Investment Type | Fair Value | Less Than One Year | 1-5 Years |
|---|---|---|---|
| U.S. Agencies | $ 2,587,715 | $ 193,459 | $ 2,394,256 |
| Mutual Funds | 12,708,328 | 12,708,328 | - - |
| Total | $ 15,296,043 | $ 12,901,787 | $ 2,394,256 |

| | |
|---|---|
| **Reconciliation of Investments** | |
| Investments | |
| Parkins Mill reserve fund accounts | $ 193,459 |
| Current restricted assets - funds held by trustee | 12,708,328 |
| Noncurrent restricted assets - funds held by trustee | 2,394,256 |
| Total | $ 15,296,043 |

**2019**

| Investment Type | Fair Value | Less Than One Year | 1-5 Years |
|---|---|---|---|
| U.S. Treasury Bills | $ 711,873 | $ 711,873 | $ - - |
| U.S. Agencies | 2,552,220 | 191,115 | 2,361,105 |
| Mutual Funds | 13,156,517 | 13,156,517 | - - |
| Total | $ 16,420,610 | $ 14,059,505 | $ 2,361,105 |

| | |
|---|---|
| **Reconciliation of Investments** | |
| Investments | |
| Parkins Mill reserve fund accounts | $ 191,115 |
| Current restricted assets - funds held by trustee | 13,868,390 |
| Noncurrent restricted assets - funds held by trustee | 2,361,105 |
| Total | $ 16,420,610 |

## Note 3. Deposits and Investments (continued)

### Credit Risk of Debt Securities

The Authority's rated debt investments as of June 30, 2020 and 2019 are presented below using Standard and Poor's rating scale. U.S. Treasury securities are not rated.

**2020**

| | Fair Quality Ratings | | |
|---|---|---|---|
| Investment Type | Credit Quality (Rating) | Rating Agency(ies) | Credit Exposure as a % of Total Investments |
| U.S. Agencies | AAA/AAAm | S&P | 16.93% |
| Mutual Funds | AAA/AAAm | S&P | 83.08% |
| Total | | | 100.01% |

* Backed by the full faith and credit of the US government.

**2019**

| | Fair Quality Ratings | | |
|---|---|---|---|
| Investment Type | Credit Quality (Rating) | Rating Agency(ies) | Credit Exposure as a % of Total Investments |
| U.S. Treasury Bills* | - | - | 4.34% |
| U.S. Agencies | AAA/AAAm | S&P | 15.54% |
| Mutual Funds | AAA/AAAm | S&P | 80.12% |
| Total | | | 100.00% |

* Backed by the full faith and credit of the US government.

### Concentration of Credit Risk

The Authority does not have an investment policy regarding the concentration of credit risk.

Investments which were more than 5% of the Authority's total investments at June 30, 2020 and 2019 were:

| | 2020 | 2019 |
|---|---|---|
| U.S. Treasury Securities | 16.93% | 19.88% |
| U.S. Agencies | 74.14% | 68.89% |
| PFM Government Fund | 8.93% | 11.23% |

### Custodial Credit Risk

To protect the Authority against potential fraud, the Authority requires the investment assets of the Authority to be secured through third-party custody and safekeeping procedures.

## Note 4. Fair Value Measurements

The following table presents the balance of financial assets measured at fair value on a recurring basis as of June 30, 2020 and 2019:

| | Balance as of June 30, 2020 | Quoted Price in Active Markets for Identical Assets (Level 1) | Significant Other Observable Levels (Level 2) | Significant Other Unobservable Levels (Level 3) |
|---|---|---|---|---|
| U.S. Agencies | $ 2,587,715 | $ 2,587,715 | $ - - | $ - - |
| Mutual Funds | 12,708,328 | 12,708,328 | - - | - - |
| Total | $ 15,296,043 | $ 15,296,043 | $ - - | $ - - |

| | Balance as of June 30, 2019 | Quoted Price in Active Markets for Identical Assets (Level 1) | Significant Other Observable Levels (Level 2) | Significant Other Unobservable Levels (Level 3) |
|---|---|---|---|---|
| U.S. Treasury securities | $ 711,873 | $ 711,873 | $ - - | $ - - |
| U.S. Agencies | 2,552,220 | 2,552,220 | - - | - - |
| Mutual Funds | 13,156,517 | 13,156,517 | - - | - - |
| Total | $ 16,420,610 | $ 16,420,610 | $ - - | $ - - |

## Note 5. Accounts Receivable

Accounts receivable consist of the following at June 30, 2020 and 2019:

| | 2020 | 2019 |
|---|---|---|
| City of Winchester | $ 1,045,663 | $ 1,051,394 |
| Frederick Water | 164,388 | 137,850 |
| National Fruit Product Company, Inc. | 106,739 | 137,850 |
| Merritt Sanitation Service | 70,998 | 124,156 |
| Others | 172,574 | 20,107 |
| | $ 1,560,362 | $ 1,471,357 |
| Less: allowance for doubtful accounts | (50,000) | (31,500) |
| Total | $ 1,510,362 | $ 1,439,857 |

## Note 6. Capital Assets

Capital asset activity was as follows for the years ending June 30, 2020 and 2019, respectively:

| | Beginning Balance 7/1/2019 | Increases/ Transfers | Decreases/ Transfers | Ending Balance 6/30/2020 |
|---|---|---|---|---|
| Capital assets, not being depreciated | | | | |
| Land | $ 482,405 | $ - - | $ - - | $ 482,405 |
| Construction in progress | - - | 445,930 | - - | 445,930 |
| Total capital assets, not being depreciated | $ 482,405 | $ 445,930 | $ - - | $ 928,335 |
| Capital assets, being depreciated: | | | | |
| Structures and improvements | $ 203,782,101 | $ 141,165 | $ - - | $ 203,923,266 |
| Plant expansion | 12,821,184 | - - | - - | 12,821,184 |
| Equipment, furniture and fixtures | 658,212 | - - | - - | 658,212 |
| Master plan | 190,735 | - - | - - | 190,735 |
| Vehicles | 405,024 | 101,031 | (19,900) | 486,155 |
| Total capital assets, being depreciated | $ 217,857,256 | $ 242,196 | $ (19,900) | $ 218,079,552 |
| Less: accumulated depreciation | $ 85,166,563 | $ 5,415,732 | $ (19,900) | $ 90,562,395 |
| Total capital assets | $ 133,173,098 | $ (4,727,606) | $ - - | $ 128,445,492 |

| | Beginning Balance 7/1/2018 | Increases/ Transfers | Decreases/ Transfers | Ending Balance 6/30/2019 |
|---|---|---|---|---|
| Capital assets, not being depreciated, Land | $ 482,405 | $ - - | $ - - | $ 482,405 |
| Capital assets, being depreciated: | | | | |
| Structures and improvements | $ 203,307,294 | $ 474,807 | $ - - | $ 203,782,101 |
| Plant expansion | 12,821,184 | - - | - - | 12,821,184 |
| Equipment, furniture and fixtures | 660,066 | - - | (1,854) | 658,212 |
| Master plan | 190,735 | - - | - - | 190,735 |
| Vehicles | 298,085 | 179,261 | (72,322) | 405,024 |
| Total capital assets, being depreciated | $ 217,277,364 | $ 654,068 | $ (74,176) | $ 217,857,256 |
| Less: accumulated depreciation | $ 79,843,476 | $ 5,397,263 | $ (74,176) | $ 85,166,563 |
| Total capital assets | $ 137,916,293 | $ (4,743,195) | $ - - | $ 133,173,098 |

Depreciation expense was $5,415,732 and $5,397,263 for the years ended June 30, 2020 and 2019, respectively.

## Note 7. Long-Term Obligations

The following is a summary of long-term debt transactions for the years ended June 30, 2020 and 2019:

| | 2020 | 2019 |
|---|---|---|
| Balance, beginning | $ 101,523,815 | $ 106,421,182 |
| Deduct: principal payments | (5,362,939) | (4,897,367) |
| Total outstanding long-term debt | $ 96,160,876 | $ 101,523,815 |
| Unamortized premiums and discounts, net | 3,704,601 | 4,073,033 |
| Balance, ending | $ 99,865,477 | $ 105,596,848 |

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

| Year Ending June 30, | Principal | Interest | Total |
|---|---|---|---|
| 2021 | $ 5,146,283 | $ 3,438,911 | $ 8,585,194 |
| 2022 | 5,317,939 | 3,263,204 | 8,581,143 |
| 2023 | 5,511,573 | 3,075,785 | 8,587,358 |
| 2024 | 5,702,237 | 2,877,394 | 8,579,631 |
| 2025 | 5,914,983 | 2,670,948 | 8,585,931 |
| 2026-2030 | 31,625,857 | 10,038,009 | 41,663,866 |
| 2031-2035 | 19,542,004 | 5,592,888 | 25,134,892 |
| 2036-2040 | 17,400,000 | 1,627,678 | 19,027,678 |
| Total | $ 96,160,876 | $ 32,584,817 | $ 128,745,693 |

### Details of Long-Term Debt

#### 1998 Virginia Water Facilities Revolving Fund (Parity Indebtedness)

In July 1998, the Authority issued a $9,538,548 Virginia Water Facilities Revolving Fund bond, due in semiannual installments of $341,648, including interest at 3.5% through May 2020. This loan is secured by revenue from the Opequon Wastewater Reclamation Facility and the debt proceeds were used to expand and upgrade the facility. The balance of this bond was $0 and $666,383 at June 30, 2020 and 2019, respectively.

#### 2007 Virginia Resources Authority Sewer System Revenue Bonds (Parity Indebtedness)

In June 2007, the Authority issued a $39,000,000 Virginia Resources Authority Sewer System Revenue for the construction of the expansion of the Parkins Mill Wastewater Treatment Plant, secured by revenue from the Opequon Wastewater Reclamation Facility. The Authority is only responsible for the amount of bond funds actually received. The final funds were fully drawn in fiscal year 2011 resulting in a final issue amount of $37,930,386. In 2014, the bond was refinanced with semiannual installments of $1,246,982, including interest at 2.77%, through September 2029. The balance of this bond was $20,953,447 and $22,882,841 at June 30, 2020 and 2019, respectively.

## Note 7. Long-Term Obligations (continued)

**2009 Virginia Resources Authority Sewer System Revenue Bonds (Parity Indebtedness)**

In May 2009, the Authority issued a $19,870,089 Virginia Resources Authority Sewer System Revenue bond, due in semiannual installments of $658,400 to $698,000, including interest at 2.65% to 3.35% through March 2031, secured by revenue from the Opequon Wastewater Reclamation Facility. The debt proceeds were used to expand and upgrade the facility. The Authority is only responsible for the amount of funds actually received. The balance of this bond was $12,502,429 and $13,469,591 at June 30, 2020 and 2019, respectively.

**2014A Virginia Resources Authority Revenue Bonds (Parity Indebtedness)**

In April 2014, the Authority issued a $30,110,000 Taxable Regional Sewer System Bond, due in annual installments of $395,000 to $2,085,000, beginning in October 2017, plus interest payable semi-annually ranging from 2.74% and 4.83%, through October 2038, secured by revenue from the Opequon Wastewater Reclamation Facility. The debt proceeds were used for plant upgrades and construction of the Green Waste to Energy Project. The balance of this bond was $28,320,000 and $29,120,000 at June 30, 2020 and 2019, respectively.

**2014B Virginia Resources Authority Revenue Bonds (Parity Indebtedness)**

In August 2014, the Authority issued a $20,075,000 Taxable Regional Sewer System Bond due in annual installments of $215,000 to $1,425,000, beginning in October 2017, plus interest payable semi-annually ranging between 3.65% and 5.13%, through October 2038, secured by revenue from the Opequon Wastewater Reclamation Facility. The debt proceeds were used for the construction of the Green Waste to Energy Project. The balance of this bond was $19,015,000 and $19,510,000 at June 30, 2020 and 2019, respectively.

**2015A Virginia Resources Authority Revenue Refunding Bonds (Parity Indebtedness)**

In May 2015, the Authority issued a $12,270,000 Taxable Regional Sewer System Bond due in annual installments of $15,000 to $845,000, plus interest payable semi-annually ranging between 3.13% and 5.16%, through October 2038, secured by revenue from the Opequon Wastewater Reclamation Facility. The debt proceeds were used to refund a portion of the 2008 Virginia Resources Authority Revenue Bonds. The balance of this bond was $11,670,000 and $12,170,000 at June 30, 2020 and 2019, respectively.

**2016B Virginia Resources Authority Revenue Refunding Bonds (Parity Indebtedness)**

In August 2016, the Authority issued a $3,760,000 Taxable Regional Sewer System Bond due in annual installments of $5,000 to $575,000, plus interest payable semi-annually ranging between 2.71% and 5.16%, through October 2038, secured by revenue from the Opequon Wastewater Reclamation Facility. The debt proceeds were used to refund a portion of the 2008 Virginia Resources Authority Revenue Bonds. The balance of this bond was $3,700,000 and $3,705,000 at June 30, 2020 and 2019, respectively.

## Note 7. Long-Term Obligations (continued)

### Bond Premium

Unamortized bond premium on the 2014A Virginia Resources Authority Revenue Bond issue in the original amount of $2,042,899 is amortized over the life of the bond issue using the effective interest method. Amortization of the premium amounted to $124,252 and $127,762 for the years ended June 30, 2020 and 2019, respectively. The balance of the unamortized premium was $1,264,194 and $1,388,447 at June 30, 2020 and 2019, respectively.

Unamortized bond premium on the 2014B Virginia Resources Authority Revenue Bond issue in the original amount of $2,187,908 is amortized over the life of the bond issue using the effective interest method. Amortization of the premium amounted to $132,513 and $135,962 for the years ended June 30, 2020 and 2019, respectively. The balance of the unamortized premium was $1,361,332 and $1,493,844 at June 30, 2020 and 2019, respectively.

Unamortized bond premium on the 2015A Virginia Resources Authority Revenue Bond issue in the original amount of $1,416,461 is amortized over the life of the bond issue using the effective interest method. Amortization of the premium amounted to $94,707 and $98,764 for the years ended June 30, 2020 and 2019, respectively. The balance of the unamortized premium was $826,391 and $921,098 at June 30, 2020 and 2019, respectively.

Unamortized bond premium on the 2016B Virginia Resources Authority Revenue Refunding Bond issue in the original amount of $320,662 is amortized over the life of the bond issue using the effective interest method. Amortization of the premium amounted to $16,960 and $16,983 for the years ended June 30, 2020 and 2019, respectively. The balance of the unamortized premium was $252,684 and $269,644 at June 30, 2020 and 2019, respectively.

## Note 8. Deferred Outflows of Resources

The loss on refunding in fiscal year 2015 totaled $1,535,978. This cost has been deferred and is amortized over 24 years. Amortization is based on the principal retirements of the refunding bond issue, and amounted to $91,822 and $94,814 for the years ended June 30, 2020 and 2019, respectively. The unamortized balance at June 30, 2020 and 2019 was $943,760 and $1,035,582, respectively, and is reflected as a deferred outflow of resources on the Statement of Net Position.

The loss on refunding in fiscal year 2017 totaled $326,914. This cost has been deferred and is amortized over 22 years. Amortization is based on the principal retirements of the refunding bond issue, and amounted to $17,291 and $17,314 for the years ended June 30, 2020 and 2019, respectively. The unamortized balance at June 30, 2020 and 2019 was $257,611 and $274,902, respectively, and is reflected as a deferred outflow of resources on the Statement of Net Position.

## Note 9. Major Customers and Related Party Transactions

The Authority entered into an agreement with the City of Winchester and Frederick Water on September 12, 1983 for the construction of the Opequon Water Reclamation Facility. This agreement provided for the financing, operation and maintenance of the facilities treating sewage delivered by the City and Frederick Water. This agreement was amended on June 22, 1998 and April 17, 2008 to provide for the expansion and upgrade of the Opequon facility to accommodate additional treatment capacity. The amended Intermunicipal Agreement established ownership of the facility treatment capacity and apportioning of the existing and new debt based on ownership. The agreement also established the manner in which operational costs would be recovered from the City and Frederick Water based on the quantity and strength of sewage delivered to the Opequon facility.

The Authority has agreements with the City of Winchester and Frederick Water which provide for the operation of its facilities. The total charges to the Authority by the City amounted to $5,598,665 and $6,550,698 for the years ending June 30, 2020 and 2019, respectively. The Authority owed the City $664,045 and $691,200 at June 30, 2020 and 2019, respectively.

Frederick Water, under the Parkins Mill Agreement, assumes all operating costs and pays the Service Authority rental and administrative fees for the use of the facility. The operating agreement for Parkins Mill is in full force unless terminated by concurrent approval of the parties.

## Note 10. Leases

During the year ended June 30, 2019, the Authority leased office space from the County of Frederick, Virginia on a year-to-year basis. This agreement was terminated on June 30, 2019. Total rent expense was $6,484 for the year ended June 30, 2019.

On May 16, 2019, the Authority entered into a multi-year lease agreement for office space through May 31, 2021. Total lease payments of $12,000 are due for the year ended June 30, 2021. Total rent expense was $12,000 and $1,000 for the years ended June 30, 2020 and 2019, respectively.

## Note 11. Risk Management

The Authority contracts with private insurance carriers to provide against the risk of loss from property damage and related liability coverages. The Authority's risk of loss is generally limited to settlements in excess of insured coverages and policy deductibles. There have been no settlements in excess of insurance coverages in the last three years.

## Note 12. Commitments and Contingencies

### Line of Credit

The Authority has a line of credit in the amount of $5 million with Truist Bank. Interest is accrued and payable monthly on the outstanding balance. Interest is calculated at the one-month LIBOR plus 2%, with a minimum rate of 3%. The line of credit was renewed on August 11, 2020 through August 2021. As of June 30, 2020, there were no amounts outstanding on the line of credit.

## Note 13. New Accounting Pronouncements

GASB Statement No. 84, Fiduciary Activities, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement 84 will become effective for the Authority for the fiscal year ending June 30, 2021.

GASB Statement No. 87, Leases, is designed to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring 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. Statement 87 will be effective for the Authority beginning with its fiscal year ending June 30, 2022.

GASB Statement No. 90, Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61, seeks to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. This Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Statement 90 will become effective for the Authority for the fiscal year ending June 30, 2021.

GASB Statement No. 91, Conduit Debt Obligations, seeks to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement 91 will be effective for the Authority for fiscal year ending June 30, 2023.

GASB Statement No. 92, Omnibus 2020, is to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB pronouncements. Requirements related to the effective date of Statement 87 and Implementation Guide 2019-3 are effective upon issuance. The remaining requirements are effective for the Authority for the fiscal year ending June 30, 2022.

GASB Statement No. 93, Replacement of Interbank Offered Rates, is to address accounting and financial reporting implications that result from the replacement of an interbank offered rate (IBOR). Guidelines related to lease guidance under GASB 87 and to the removal of LIBOR as an appropriate benchmark interest rate are effective for the fiscal year ending June 20, 2022. The remaining requirements of Statement 93 will be effective for the Authority for fiscal year ending June 30, 2021.

GASB Statement No. 94, Public-Private and Public-Public Partnerships and Availability Payment Arrangements, aims to improve financial reporting by addressing issues related to public-private and public-public partnership arrangements. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements. Statement 94 will be effective for the Authority for fiscal year ending June 30, 2023.

GASB Statement No. 96, Subscription-Based Information Technology Arrangements, is to provide guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). This Statement (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. To the extent relevant, the standards for SBITAs are based on the standards established in Statement No. 87, Leases, as amended. Statement 96 will be effective for the Authority for fiscal year ending June 30, 2022.

GASB Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plan – 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 the reporting of fiduciary component units in circumstances in which a potential component unit does not have a governing board and the primary government performs the duties that a governing board typically would perform; (2) mitigates costs associated with the reporting of certain defined contribution pension plans, defined contribution other postemployment benefit (OPEB) plans, and employee benefit plans other than pension plans or OPEB plans (other employee benefit plans) as fiduciary component units in fiduciary fund financial statements; and (3) enhance the relevance, consistency, and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan and for benefits provided through those plans. Statement 97 will be effective for the Authority for fiscal year ending June 30, 2022.

Management has not yet determined the effect these Statements will have on its financial statements.

## Note 14. Other Post-Employment Benefits

### RETIREE MEDICAL INSURANCE (RMI) PREMIUM CONTRIBUTION PLAN

#### Plan Description

Other post-employment benefits (OPEB) provided by the Authority through the City of Winchester (the City) include a retiree medical insurance premium contribution plan that covers retirees, their spouses, and dependents until the single employer defined benefit retiree reaches 65 years of age. The plan was established by the City of Winchester's Council and is a cost sharing plan. The Authority's membership in the Plan as of the last valuation was 23 active employees and 0 (zero) retirees. The Plan was closed to new participants hired on or after July 1, 2017.

#### Eligible Employees

Participants must meet retirement eligibility requirements of the Normal Retirement provisions of the Virginia Retirement System and have a minimum of 20 years of service with the City of Winchester.

## Note 14. Other Post-Employment Benefits (continued)

### Benefit Amounts

Retirees hired prior to July 1, 2017 under age 65 have the option of choosing three medical plans. The plan allows employees under age 65 to remain in the same medical plan as active employees.

### Contributions

The Authority establishes employer contribution rates for plan participants. The Authority has chosen to fund the medical benefits on a pay as you go basis. The Authority pays a certain dollar amount for the retiree, which covers the entire cost of the least expensive plan. The retiree pays 100% for the dependent coverage. Employees must meet the unreduced retirement eligibility as described in the pension plan to be eligible for post-retirement health coverage. The Authority experienced no claims throughout the fiscal year.

### Actuarial Assumptions

The total RMI Premium Contribution Plan OPEB liability was based on an actuarial valuation as of January 1, 2020, using the Entry Age Normal actuarial cost method and the VRS salary scale assumption for general and specific risk, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

### Discount Rate

The discount rate used to measure the total OPEB liability was 6.50%. This was set by PFM Investment Advisors as the projected return.

### Changes in Net RMI OPEB Liability

| | Increase (Decrease) | | |
|---|---|---|---|
| | Total RMI OPEB Liability (a) | Plan Fiduciary Net Position (b) | Net RMI OPEB Liability (a) - (b) |
| Balances at June 30, 2019 | $ 71,056 | $ 41,234 | $ 29,822 |
| Increase (decrease) for the year: | | | |
| Service cost | $ 1,976 | $ - - | $ 1,976 |
| Interest | 3,837 | - - | 3,837 |
| Experience losses/(gains) | 16,861 | - - | 16,861 |
| Contributions - employer | - - | 5,694 | (5,694) |
| Net investment income | - - | 1,833 | (1,833) |
| Change in assumptions | (5,068) | - - | (5,068) |
| Benefit payments (net of retiree contributions) | (3,031) | (3,031) | - - |
| Changes in annual allocation | (10,767) | (6,247) | (4,520) |
| Net changes | $ 3,808 | $ (1,751) | $ 5,559 |
| Balances at June 30, 2020 | $ 74,864 | $ 39,483 | $ 35,381 |

**Note 14. Other Post-Employment Benefits (continued)**

### Sensitivity of the RMI Contribution Plan Net OPEB Liability to Changes in the Discount Rate

The following presents the RMI Contribution Plan Net OPEB liability of the Authority using the discount rate of 6.50%, as well as what the Authority's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.50%) or one percentage point higher (7.50%) than the current rate:

| | 1% Decrease (5.50%) | Current Discount Rate (6.50%) | 1% Increase (7.50%) |
|---|---|---|---|
| Authority's net RMI OPEB liability | $ 44,226 | $ 35,381 | $ 27,644 |

The following presents the RMI Contribution Plan Net OPEB liability of the Authority using the health care cost trend rate of 4.04%, as well as what the Authority's net OPEB liability would be if it were calculated using a health care cost trend rate that is one percentage point lower (3.04%) or one percentage point higher (5.04%) than the current rate:

| | 1% Decrease (3.04%) | Medical Trend Rate (4.04%) | 1% Increase (5.04%) |
|---|---|---|---|
| Authority's net RMI OPEB liability | $ 26,420 | $ 35,381 | $ 46,072 |

### RMI Contribution Plan OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to RMI Contribution Plan OPE

For the fiscal year ended June 30, 2020, the Authority recognized an OPEB expense of $6,237. At June 30, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to the RMI Contribution Plan from the following sources:

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Differences between expected and actual experience | $ 18,255 | $ 16 |
| Change in assumptions | - - | 4,344 |
| Change in Proportion | 2,994 | 3,108 |
| Net difference between projected and actual earnings on OPEB plan investments | 720 | - - |
| Employer contributions subsequent to the measurement date | - - | - - |
| Total | $ 21,969 | $ 7,468 |

**Note 14. Other Post-Employment Benefits (continued)**

The Authority reported no amount as deferred outflows of resources related to the RMI Contribution Plan OPEB resulting from the Authority's contributions subsequent to the measurement date that will be recognized as a reduction of the Net RMI Contribution Plan OPEB Liability in the Fiscal Year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the RMI Contribution Plan OPEB will be recognized in the RMI Contribution Plan OPEB expense in future reporting periods as follows:

| Year Ended June 30: | | |
|---|---|---|
| 2021 | $ | 2,787 |
| 2022 | | 2,788 |
| 2023 | | 2,610 |
| 2024 | | 2,627 |
| 2025 | | 2,524 |
| Thereafter | | 1,165 |

Information about the RMI Contribution Plan OPEB is available in the separately issued City of Winchester Comprehensive Annual Financial Report (CAFR). A copy of the 2020 City of Winchester CAFR may be downloaded from the City of Winchester website at https://www.winchesterva.gov/finance/budget-and-cafr, or by writing to the City's Chief Financial Officer at 15 North Cameron Street, Winchester, VA, 22601.

**Health Insurance Credit Program and Plan Provisions**

**Plan Description**

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS Political Subdivision HIC Program (HIC) upon employment. This plan is administered by the Virginia Retirement System (the System), along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia. The HIC is a multiple-employer, agent defined benefit plan. Members earn one month of service credit toward the benefit for each month they are employed and for which their employer pays contributions to VRS. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering the spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

**Eligible Employees**

The Political Subdivision Retiree HIC Program was established July 1, 1993 for retired political subdivision employees of employers who elect the benefit and who retire with at least 15 years of service credit. Eligible employees of participating are enrolled automatically upon employment which includes full-time permanent salaried employees of the participating political subdivision who are covered under the VRS pension plan.

## Note 14. Other Post-Employment Benefits (continued)

### Benefit Amounts

The political subdivision's Retiree HIC Program provides the following benefits for eligible employees:

**At Retirement** – For employees who retire, the monthly benefit is $1.50 per year of service per month with a maximum benefit of $45.00 per month.

**Disability Retirement** – For employees who retire on disability or go on long-term disability under the Virginia Local Disability Program (VLDP), the monthly benefit is $45.00 per month.

### Health Insurance Credit Program Notes

The monthly HIC benefit cannot exceed the individual premium amount.

No health insurance credit for premiums paid and qualified under LODA, however, the employee may receive the credit for premiums paid for other qualified health plans.

Employees who retire after being on long-term disability under VLDP must have at least 15 years of service credit to qualify for the health insurance credit as a retiree.

### Contributions

The contribution requirement for active employees is governed by §51.1-1402(E) 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. The Authority's contractually required employer contribution rate for the year ended June 30, 2020 was 0.12% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate 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 from the Authority to the Political Subdivision HIC Program were $1,380 and $1,297 for the years ended June 30, 2020 and June 30, 2019, respectively.

### Net HIC OPEB Liability

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

## Note 14. Other Post-Employment Benefits (continued)

### Actuarial Assumptions

The total HIC OPEB liability was based on an actuarial valuation as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019.

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

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of the 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 Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

## Note 14. Other Post-Employment Benefits (continued)

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

| | |
|---|---|
| Mortality Rates (Pre-retirement, post-retirement healthy, and disabled) | Updated to a more current mortality table – RP-2014 projected to 2020 |
| Retirement Rates | Lowered retirement rates at older ages and changed final retirement 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease from 7.00% to 6.75% |

### Long-Term Expected Rate of Return

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

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

## Note 14. Other Post-Employment Benefits (continued)

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

### Discount Rate

The discount rate used to measure the total HIC OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the HIC OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019, on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the HIC 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 HIC OPEB liability.

### Changes in Net HIC OPEB Liability

| | Increase (Decrease) | | |
|---|---|---|---|
| | Total HIC OPEB Liability (a) | Plan Fiduciary Net Position (b) | Net HIC OPEB Liability (a) - (b) |
| Balances at June 30, 2018 | $ 31,682 | $ 24,500 | $ 7,182 |
| Increase (decrease) for the year: | | | |
| Service cost | $ 647 | $ - - | $ 647 |
| Interest | 1,582 | - - | 1,582 |
| Changes of assumptions | 626 | - - | 626 |
| Differences between expected and actual experience | (2,137) | - - | (2,137) |
| Contributions - employer | - - | 1,040 | (1,040) |
| Contributions - employee | - - | - - | - - |
| Net investment income | - - | 1,157 | (1,157) |
| Benefit payments | (1,039) | (1,039) | - - |
| Administrative expenses | - - | (25) | 25 |
| Other changes | - - | (1) | 1 |
| Changes in annual allocation | (8,563) | (6,622) | (1,941) |
| Net changes | $ (8,884) | $ (5,490) | $ (3,394) |
| Balances at June 30, 2019 | $ 22,798 | $ 19,010 | $ 3,788 |

## Note 14. Other Post-Employment Benefits (continued)

### Sensitivity of the Political Subdivision Health Insurance Credit Net OPEB Liability to Changes in the Discount Rate

The following presents the Political Subdivision HIC Program Net HIC OPEB liability of the Authority using the discount rate of 6.75%, as well as what the Authority's net HIC 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:

| | 1% Decrease (5.75%) | Current Discount Rate (6.75%) | 1% Increase (7.75%) |
|---|---|---|---|
| Authority's net HIC OPEB liability | $ 6,590 | $ 3,788 | $ 1,439 |

### HIC Program OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to HIC Program OPEB

For the year ended June 30, 2020, the Authority recognized Health Insurance Credit Program OPEB expense of $431. At June 30, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to Political Subdivision HIC Program from the following sources:

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Differences between expected and actual experience | $ - - | $ 2,736 |
| Change in assumptions | 545 | 526 |
| Net difference between projected and actual earnings on HIC OPEB plan investments | 75 | 296 |
| Employer contributions subsequent to the measurement date | 1,380 | - - |
| Total | $ 2,000 | $ 3,558 |

**Note 14. Other Post-Employment Benefits (continued)**

The Authority reported $1,380 as deferred outflows of resources related to the HIC OPEB resulting from the Authority's contributions subsequent to the measurement date which will be recognized as a reduction of the Net HIC OPEB Liability in the Fiscal Year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB will be recognized in the HIC OPEB expense in future reporting periods as follows:

| Year Ended June 30 | | |
|---|---|---|
| 2021 | $ | (575) |
| 2022 | | (575) |
| 2023 | | (437) |
| 2024 | | (432) |
| 2025 | | (441) |
| Thereafter | | (478) |

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

**GROUP LIFE INSURANCE (GLI) PROGRAM AND PLAN PROVISIONS**

**Plan Description**

All full-time, salaried permanent employees of the state agencies, teachers and employees of participating political subdivisions are automatically covered by the VRS GLI Program upon employment. This plan is administered by the Virginia Retirement System (the System), along with pensions and other OBEB plans, for public employer groups in the Commonwealth of Virginia and is a multiple employer, cost-sharing plan.

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

**Eligible Employees**

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

## Note 14. Other Post-Employment Benefits (continued)

### Benefit Amounts

The benefits payable under the GLI Program have several components.

**Natural Death Benefit –** The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.

**Accidental Death Benefit** – The accidental death benefit is double the natural death benefit.

**Other Benefit Provisions** – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option.

### Reduction in Benefit Amounts

The benefit amounts provided to members covered under the GLI Program 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.

### Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the GLI Program. The minimum benefit was set at $8,000 by statute in 2015. This will be increased annually based on the VRS Plan 2 cost-of-living adjustment calculation. The minimum benefit adjusted for the COLA was $8,463 as of June 30, 2020.

### Contributions

The contribution requirements for the GLI Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2020 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the GLI Program from the entity were $15,555 and $14,167 for the years ended June 30, 2020 and June 30, 2019, respectively.

## Note 14. Other Post-Employment Benefits (continued)

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

At June 30, 2020, the Authority reported a liability of $71,691 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2019 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2018 and rolled forward to the measurement date of June 30, 2019. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Program for the year ended June 30, 2019, relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2019, the Authority's proportion was 0.0044% as compared to 0.0059% at June 30, 2018.

For the year ended June 30, 2020, the Authority recognized GLI OPEB expense of $1,774 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.

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Differences between expected and actual experience | $ 4,526 | $ 930 |
| Change in assumptions | 2,294 | 2,162 |
| Change in proportion | - - | 1,197 |
| Net difference between projected and actual earnings on GLI OPEB plan investments | 4,768 | 1,473 |
| Employer contributions subsequent to the measurement date | 15,555 | - - |
| Total | $ 27,143 | $ 5,761 |

**Note 14. Other Post-Employment Benefits (continued)**

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

The Authority reported $14,167 as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date which will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

| Year Ended June 30 | | |
|---|---|---|
| 2020 | $ | 257 |
| 2021 | | 257 |
| 2022 | | 881 |
| 2023 | | 1,450 |
| 2024 | | 1,475 |
| Thereafter | | 411 |

**Actuarial Assumptions**

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019.

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

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

**Note 14. Other Post-Employment Benefits (continued)**

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 Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the 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 changed final retirement 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease rate from 7.00% to 6.75% |

**Net GLI OPEB Liability**

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

| | GLI OPEB Program |
|---|---|
| Total GLI OPEB Liability | $ 149,361 |
| Plan Fiduciary Net Position | 77,670 |
| Employers' Net OPEB Liability | $ 71,691 |
| Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability | 52.00% |

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

## Note 14. Other Post-Employment Benefits (continued)

### Long-Term Expected Rate of Return

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

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

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

### 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 ending 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.

## Note 14. Other Post-Employment Benefits (continued)

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

The following presents the Authority's proportionate share of the net GLI OPEB liability using the discount rate of 6.75%, as well as what the Authority'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:

| | 1% Decrease (5.75%) | Current Discount Rate (6.75%) | 1% Increase (7.75%) |
|---|---|---|---|
| Authority's net GLI OPEB liability | $ 94,182 | $ 71,691 | $ 53,451 |

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

## Note 15. Defined Benefit Pension Plan

### Plan Description

All full-time, salaried permanent employees of the Authority are automatically covered by a VRS Retirement Plan upon employment. This Plan, a multi-employer agent plan, is 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.

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. The specific information for each plan and the eligibility for covered groups within each plan are set out in the follows:

### Retirement Plan Provisions

***Plan 1:***

***About Plan 1:*** Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service, and average final compensation at retirement using a formula.

***Eligible Members:*** Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013, and they have not taken a refund.

**Note 15. Defined Benefit Pension Plan (continued)**

*Hybrid Opt-In Election:* VRS non-hazardous duty covered Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.

The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014.

If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.

***Retirement Contributions:*** Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Member contributions are tax-deferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.

***Creditable Service:*** Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.

***Vesting:*** Vesting is the minimum length of service a member needs to qualify for future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for the plan. Members also must be vested to receive a full refund of their contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.

***Calculating the Benefit:*** The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.

***Average Final Compensation:*** A member's average final compensation is the average of 36 consecutive months of highest compensation as a covered employee.

***Service Retirement Multiplier:*** The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.70%.

**Note 15. Defined Benefit Pension Plan (continued)**

***Normal Retirement Age:*** Age 65.

***Earliest Unreduced Retirement Eligibility:*** Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.

***Earliest Reduced Retirement Eligibility:*** Age 55 with at least five years (60 months) of creditable service or at age 50 with at least 10 years of creditable service.

***Cost-of-Living Adjustment (COLA) in Retirement:*** The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%.

*Eligibility:* For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date.

For members who retire with a reduced benefit and who have less than 20 years of creditable service, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date.

*Exceptions to COLA Effective Dates:* The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:

- The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.
- The member retires on disability.
- The member retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP).
- The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act of Transitional Benefits Program.
- The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.

***Disability Coverage:*** Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.70% on all service, regardless of when it was earned, purchased, or granted.

***Purchase of Prior Service:*** Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. When buying service, members must purchase their most recent period of service firsts. Members also may be eligible to purchase periods of leave without pay.

**Note 15. Defined Benefit Pension Plan (continued)**

***Plan 2:***

***About Plan 2:*** Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service, and average final compensation at retirement using a formula.

***Eligible Members:*** Employees are in Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.

*Hybrid Opt-In Election:* Eligible Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.

The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014.

If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.

***Retirement Contributions:*** Same as Plan 1.

***Creditable Service:*** Same as Plan 1.

***Vesting:*** Same as Plan 1.

***Calculating the Benefit:*** See definition under Plan 1.

***Average Final Compensation:*** A member's average final compensation is the average of 60 consecutive months of highest compensation as a covered employee.

***Service Retirement Multiplier:*** Same as Plan 1 for service earned, purchased, or granted prior to January 1, 2013. For non-hazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased, or granted on or after January 1, 2013.

***Normal Retirement Age:*** Normal Social Security retirement age.

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

***Earliest Reduced Retirement Eligibility:*** Age 60 with at least five years (60 months) of creditable service.

## Note 15. Defined Benefit Pension Plan (continued)

***Cost-of-Living Adjustment (COLA) in Retirement:*** The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the (CPI-U) and half of any additional increase (up to 2%) up to a maximum COLA of 3%.

*Eligibility:* Same as Plan 1.

*Exceptions to COLA Effective Dates:* Same as Plan 1.

***Disability Coverage:*** Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased, or granted.

***Purchase of Prior Service:*** Same as Plan 1.

### Hybrid Retirement Plan

***About the Hybrid Retirement Plan:*** The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan.

The defined benefit is based on a member's age, creditable service, and average final compensation at retirement using a formula.

The benefit from the defined contribution component of the Plan depends on the member and employer contributions made to the Plan and the investment performance of those contributions.

In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.

***Eligible Members:*** Employees are in the Hybrid Retirement Plan if their membership date is on or after July 1, 2014. This includes:

- Political subdivision employees*

- Members in Plan 1 or Plan 2 who elected to opt into the Plan during the election window held January 1 – April 20, 2014; the Plan's effective date for opt-in members was July 1, 2014.

*Non-eligible Members:* Some employees are not eligible to participate in the Hybrid Retirement Plan. They include:

- Political subdivision employees who are covered by enhanced benefits for hazardous duty employees.

## Note 15. Defined Benefit Pension Plan (continued)

Those employees eligible for an optional retirement plan (ORP) must elect the ORP Plan or the Hybrid Retirement Plan. If these members have prior service under Plan 1 or Plan 2, they are not eligible to elect the Hybrid Retirement Plan and must select Plan 1 or Plan 2 (as applicable) or ORP.

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

### Creditable Service

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

*Defined Contribution Component:* Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the Plan.

### Vesting

*Defined Benefit Component:* Defined benefit vesting is the minimum length of service a member needs to quality for a future retirement benefit. Members are vested under the defined benefit of the Hybrid Retirement Plan when they reach five years (60 months) of creditable service. Plan 1 or Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.

*Defined Contribution Component:* Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the Plan.

Members are always 100% vested in the contributions that they make.

## Note 15. Defined Benefit Pension Plan (continued)

Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the Plan, based on service.

- After 2 years, a member is 50% vested and may withdraw 50% of employer contributions.
- After 3 years, a member is 75% vested and may withdraw 75% of employer contributions.
- After 4 or more years, a member is 100% vested and may withdraw 100% of employer contributions.

Distribution is not required by law, except as governed by law.

### Calculating the Benefit

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

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

***Average Final Compensation:*** Same as Plan 2. It is used in the retirement formula for the defined benefit component of the Plan.

***Service Retirement Multiplier:***

*Defined Benefit Component:* The retirement multiplier for the defined benefit component is 1.00%.

For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

*Defined Contribution Component:* Not applicable.

***Normal Retirement Age:***

*Defined Benefit Component:* Same as Plan 2.

*Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.

***Earliest Unreduced Retirement Eligibility:***

*Defined Benefit Component:* Normal Social Security retirement age and have at least five years (60 months) of creditable service or when their age and service equal 90.

*Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.

## Note 15. Defined Benefit Pension Plan (continued)

***Earliest Reduced Retirement Eligibility:***

*Defined Benefit Component:* Age members may retire with a reduced benefit as early as age 60 with at least five years (60 months) of creditable service.

*Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject restrictions.

***Cost-of-Living Adjustment (COLA) in Retirement:***

*Defined Benefit Component:* Same as Plan 2.

*Defined Contribution Component:* Not applicable.

*Eligibility:* Same as Plan 1 and Plan 2.

*Exceptions to COLA Effective Dates:* Same as Plan 1 and Plan 2.

***Disability Coverage:*** Employees of political subdivisions (including Plan 1 and Plan 2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides an employer-paid comparable program for its members.

Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.

**Purchase of Prior Service**

*Defined Benefit Component:* Same as Plan 1, with the following exceptions - Hybrid Retirement Plan members are ineligible for purchased service.

*Defined Contribution Component:* Not applicable.

**Contributions**

The contribution requirement for active employees is governed by §51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement.

The Authority's contractually required contribution rate for the year ended June 30, 2020 was 8.26% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employee during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were $106,906 and $97,207 for the years ended June 30, 2020 and 2019, respectively.

## Note 15. Defined Benefit Pension Plan (continued)

### Net Pension Liability

The net pension liability (NPL) is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance in GASB Statement 68, less that employer's fiduciary net position. For political subdivisions, the net pension liability was measured as of June 30, 2019. The total pension liability used to calculation the net pension liability was determined by an actuarial valuation performed as of June 30, 2018 rolled forward to the measurement date of June 30, 2019.

### Actuarial Assumptions

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

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

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

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 1.00% increase compounded from ages 70 to 90.

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

## Note 15. Defined Benefit Pension Plan (continued)

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in 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 are as follows:

Non 10 Largest – Non-Hazardous Duty:

| | |
|---|---|
| Mortality Rates (Pre-retirement, post-retirement healthy, and disabled) | Update 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease rate from 7.00% to 6.75% |

### Long-Term Expected Rate of Return

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

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

**Note 15. Defined Benefit Pension Plan (continued)**

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

### Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made 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; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2019, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017 actuarial valuations, whichever was greater. From July 1, 2019 on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

### Changes in Net Pension Liability

| | Increase (Decrease) | | |
|---|---|---|---|
| | Total Pension Liability (a) | Plan Fiduciary Net Position (b) | Net Pension Liability (a) - (b) |
| Balances at June 30, 2018 | $ 4,537,278 | $ 4,197,871 | $ 339,407 |
| Increase (decrease) for the year: | | | |
| Service cost | $ 83,897 | $ - - | $ 83,897 |
| Interest | 213,827 | - - | 213,827 |
| Changes of assumptions | 104,283 | - - | 104,283 |
| Differences between expected | - - | - - | |
| and actual experience | 26,224 | - - | 26,224 |
| Contributions - employer | - - | 68,234 | (68,234) |
| Contributions - employee | - - | 41,738 | (41,738) |
| Net investment income | - - | 193,254 | (193,254) |
| Benefit payments, including refunds | - - | - - | - - |
| of employee contributions | (145,325) | (145,325) | |
| Administrative expenses | - - | (1,903) | 1,903 |
| Other changes | - - | (122) | 122 |
| Changes in annual allocation | (1,409,949) | (1,304,479) | (105,470) |
| Net changes | $ (1,127,042) | $ (1,148,603) | $ 21,561 |
| Balances at June 30, 2019 | $ 3,410,236 | $ 3,049,268 | $ 360,968 |

## Note 15. Defined Benefit Pension Plan (continued)

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

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

| | 1% Decrease (5.75%) | Current Discount Rate (6.75%) | 1% Increase (7.75%) |
|---|---|---|---|
| Authority's net pension (asset)/ liability | $ 836,415 | $ 360,968 | $ (14,856) |

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

For the year ended June 30, 2020, the Authority recognized pension expense of $81,556. At June 30, 2020, the political subdivision reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Differences between expected and actual experience | $ 18,710 | $ 12,529 |
| Change in assumptions | 74,402 | 4,679 |
| Net difference between projected and actual earnings on pension plan investments | - - | 26,857 |
| Employer contributions subsequent to the measurement date | 106,906 | - - |
| Total | $ 200,019 | $ 44,065 |

## Note 15. Defined Benefit Pension Plan (continued)

For the year ended June 30, 2019, $106,906 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

| **Year Ended June 30** | |
|---|---|
| 2021 | $ 22,258 |
| 2022 | 7,634 |
| 2023 | 17,561 |
| 2024 | 1,595 |
| 2025 | - - |
| Thereafter | - - |

Information about the VRS Political Subdivision Retirement Plan's is also available in the separately issues VRS 2018 Comprehensive Annual Report (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2019-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

## Note 16. Uncertainties Related to the Global Pandemic

During the year ended June 30, 2020, local, U.S. and world governments encouraged self-isolation to curtail the spread of the global pandemic, coronavirus disease (COVID-19), by mandating temporary work stoppage in many sectors and imposing limitations on travel, size and duration of group meetings. Most industries have, and continue to, experience disruption to business operations and the impact of reduced consumer spending, including the Foundation. There is unprecedented uncertainty surrounding the duration of the pandemic, its potential economic ramifications, and any government actions to mitigate them. Accordingly, while it is difficult to quantify the effects on the Authority, is reasonably possible that there could be an effect on the Authority's operations in fiscal year 2021 and beyond.

## Note 17. Subsequent Events

The Authority has evaluated all subsequent events through November 14, 2020 the date the financial statements were available to be issued.

Subsequent to year end, the Authority signed two contracts for a total commitment of $802,365 for construction of the fats, oil, and grease (FOG) facility upgrades at the Opequon Water Reclamation Facility.

The Authority has determined that there are no other subsequent events that require recognition or disclosure.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Schedules of Capital Assets**
Years Ended June 30, 2020 and 2019

| **2020** | **Opequon** | **Parkins Mill** | **Stephens Run** | **Crooked Run** | **Total** |
|---|---|---|---|---|---|
| Land | $ 442,943 | $ 31,000 | $ 8,462 | $ - - | $ 482,405 |
| Structures and improvements | 140,477,975 | 58,268,272 | 677,019 | 4,500,000 | 203,923,266 |
| Equipment | 658,212 | - - | - - | - - | 658,212 |
| Vehicles | 486,155 | - - | - - | - - | 486,155 |
| Master plan | 190,735 | - - | - - | - - | 190,735 |
| Construction in progress | 445,930 | - - | - - | - - | 445,930 |
| Plant expansion - design costs and construction | 12,821,184 | - - | - - | - - | 12,821,184 |
| Total | $ 155,523,134 | $ 58,299,272 | $ 685,481 | $ 4,500,000 | $ 219,007,887 |
| Accumulated depreciation | (60,059,921) | (26,900,455) | (677,019) | (2,925,000) | (90,562,395) |
| Net capital assets | $ 95,463,213 | $ 31,398,817 | $ 8,462 | $ 1,575,000 | $ 128,445,492 |

| **2019** | **Opequon** | **Parkins Mill** | **Stephens Run** | **Crooked Run** | **Total** |
|---|---|---|---|---|---|
| Land | $ 442,943 | $ 31,000 | $ 8,462 | $ - - | $ 482,405 |
| Structures and improvements | 140,336,810 | 58,268,272 | 677,019 | 4,500,000 | 203,782,101 |
| Equipment | 658,212 | - - | - - | - - | 658,212 |
| Vehicles | 405,024 | - - | - - | - - | 405,024 |
| Master plan | 190,735 | - - | - - | - - | 190,735 |
| Plant expansion - design costs and construction | 12,821,184 | - - | - - | - - | 12,821,184 |
| Total | $ 154,854,908 | $ 58,299,272 | $ 685,481 | $ 4,500,000 | $ 218,339,661 |
| Accumulated depreciation | (56,567,187) | (25,222,357) | (677,019) | (2,700,000) | (85,166,563) |
| Net capital assets | $ 98,287,721 | $ 33,076,915 | $ 8,462 | $ 1,800,000 | $ 133,173,098 |

See Independent Auditor's Report.

## FREDERICK-WINCHESTER SERVICE AUTHORITY

**Schedule of Future Debt Requirements**
At June 30, 2020

| Fiscal Year Ending June 30 | Principal Opequon | Principal Parkins Mill | Principal Energy Project | Principal Total |
|---|---|---|---|---|
| 2021 | $ 1,522,960 | $ 1,978,323 | $ 1,645,000 | $ 5,146,283 |
| 2022 | 1,569,448 | 2,028,491 | 1,720,000 | 5,317,939 |
| 2023 | 1,631,642 | 2,079,931 | 1,800,000 | 5,511,573 |
| 2024 | 1,684,562 | 2,132,675 | 1,885,000 | 5,702,237 |
| 2025 | 1,753,226 | 2,186,757 | 1,975,000 | 5,914,983 |
| 2026-2030 | 9,688,587 | 10,547,270 | 11,390,000 | 31,625,857 |
| 2031-2035 | 5,762,004 | - - | 13,780,000 | 19,542,004 |
| 2036-2040 | 4,260,000 | - - | 13,140,000 | 17,400,000 |
| Total | $ 27,872,429 | $ 20,953,447 | $ 47,335,000 | $ 96,160,876 |

| Fiscal Year Ending June 30 | Interest Opequon | Interest Parkins Mill | Interest Energy Project | Interest Total |
|---|---|---|---|---|
| 2021 | $ 979,904 | $ 515,641 | $ 1,943,366 | $ 3,438,911 |
| 2022 | 925,742 | 465,474 | 1,871,988 | 3,263,204 |
| 2023 | 869,463 | 414,034 | 1,792,288 | 3,075,785 |
| 2024 | 810,921 | 361,289 | 1,705,184 | 2,877,394 |
| 2025 | 749,994 | 307,207 | 1,613,747 | 2,670,948 |
| 2026-2030 | 2,794,284 | 675,569 | 6,568,156 | 10,038,009 |
| 2031-2035 | 1,417,644 | - - | 4,175,244 | 5,592,888 |
| 2036-2040 | 399,709 | - - | 1,227,969 | 1,627,678 |
| Total | $ 8,947,661 | $ 2,739,214 | $ 20,897,942 | $ 32,584,817 |

See Independent Auditor's Report.

YHB CPAs & Consultants

50 South Cameron St.
Winchester, VA 22601

540.662.3417
YHBcpa.com
540.662.4211

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

To the Board of Directors
Frederick-Winchester Service Authority
Winchester, Virginia

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Frederick-Winchester Service Authority, which comprise the statement of net position as of June 30, 2020, and the related statements of revenues, expenses and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements, which collectively comprise Frederick-Winchester Service Authority's basic financial statements, and have issued our report thereon dated November 14, 2020.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered Frederick-Winchester Service Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Frederick-Winchester Service Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Frederick-Winchester Service 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 charge 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 were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified. We did identify deficiencies in internal control, described below that we considered to be significant deficiencies:

> The Authority has a limited number of administrative staff that prevents them from maintaining proper segregation of duties necessary for complete internal accounting control. This situation exists because one individual has the responsibility for all accounting functions, which is common in a small office. We understand that the Board and management are aware of this risk and have addressed and implemented controls to help mitigate the result of limited staffing, as a response to this deficiency. We recommend that the Board continue to review monthly financial information particularly to budgeted amounts and make inquiries when variances are noted.
>
> The Authority's accounting department currently does not prepare its financial statements, including the notes to the financial statements, in accordance with accounting principles generally accepted in the United States of America. Accordingly, the Authority is unable to, and has not established internal controls over the preparation of financial statements. We are required to report this deficiency. The standards do not provide exceptions to reporting deficiencies that are adequately mitigated with non-audit services rendered by the auditor or deficiencies for which the remedy would be cost prohibitive. Because prudent management requires that the potential benefit from an internal control must exceed its cost, it may not be practical to correct all the deficiencies an auditor reports. Accordingly, you may decide that curing the deficiency described above would not be cost effective and take no action.

**Compliance and Other Matters**

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

**Purpose of this Report**

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

Yount, Hyde & Barbour, P.C.

Winchester, Virginia
November 14, 2020

# REQUIRED SUPPLEMENTARY INFORMATION

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Schedules of Changes in Employer's Proportionate Share of Net Pension Liability and Related Ratios**

| | Plan Years Ended June 30, | | | | |
|---|---|---|---|---|---|
| | **2019** | **2018** | **2017** | **2016** | **2015** |
| **Total pension liability** | | | | | |
| Service cost | $ 83,897 | $ 119,189 | $ 127,542 | $ 121,838 | $ 115,052 |
| Interest | 213,827 | 297,138 | 294,497 | 274,980 | 260,937 |
| Changes of benefit terms | - - | - - | - - | - - | - - |
| Differences between expected and actual experience | 26,224 | (26,709) | (28,344) | (12,125) | (122,978) |
| Changes in assumptions | 104,283 | - - | (34,250) | - - | - - |
| Benefit payments, including refunds of employee contributions | (145,325) | (194,332) | (185,331) | (180,751) | (162,373) |
| Changes in annual allocation | (1,409,949) | (131,883) | 77,999 | 118,330 | (129,631) |
| **Net change in total pension liability** | $ (1,127,042) | $ 63,403 | $ 252,113 | $ 322,272 | $ (38,993) |
| **Total pension liability - beginning** | 4,537,278 | 4,473,875 | 4,221,762 | 3,899,490 | 3,938,483 |
| **Total pension liability - ending (a)** | $ 3,410,236 | $ 4,537,278 | $ 4,473,875 | $ 4,221,762 | $ 3,899,490 |
| **Plan fiduciary net position** | | | | | |
| Contributions - employer | $ 68,234 | $ 100,128 | $ 101,586 | $ 124,051 | $ 117,022 |
| Contributions - employee | 41,738 | 52,042 | 54,767 | 53,588 | 49,873 |
| Net investment income | 193,254 | 292,081 | 446,445 | 62,811 | 150,361 |
| Benefit payments, including refunds of employee contributions | (145,325) | (194,332) | (185,331) | (180,751) | (162,373) |
| Administrative expense | (1,903) | (2,508) | (2,557) | (2,174) | (2,025) |
| Other | (122) | (261) | (398) | (29) | (32) |
| Changes in annual allocation | (1,304,479) | (119,998) | 66,325 | 104,059 | (111,480) |
| **Net change in plan fiduciary net position** | $ (1,148,603) | $ 127,152 | $ 480,837 | $ 161,555 | $ 41,346 |
| **Plan fiduciary net position - beginning** | 4,197,871 | 4,070,719 | 3,589,882 | 3,428,327 | 3,386,981 |
| **Plan fiduciary net position - ending (b)** | $ 3,049,268 | $ 4,197,871 | $ 4,070,719 | $ 3,589,882 | $ 3,428,327 |
| **Political subdivision's net pension liability - ending (a) - (b)** | $ 360,968 | $ 339,407 | $ 403,156 | $ 631,880 | $ 471,163 |
| **Plan fiduciary net position as a percentage of the total pension liability** | 89.42% | 92.52% | 90.99% | 85.03% | 87.92% |
| **Covered-employee payroll** | $ 1,273,663 | $ 1,180,078 | $ 1,281,165 | $ 1,221,609 | $ 1,281,165 |
| **Net pension liability as a percentage of covered-employee payroll** | 28.34% | 28.76% | 31.47% | 51.73% | 36.78% |

Note: This data will be presented prospectively until ten years are accumulated.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Schedules of Employer Pension Contributions**

| Date | Contractually Required Contribution (1) | Contributions in Relation to Contractually Required Contribution (2) | Contribution Deficiency (Excess) (3) | Employer's Covered Employee Payroll (4) | Contributions as a % of Covered Employee Payroll (5) |
|---|---|---|---|---|---|
| 2020 | $ 106,906 | $ 106,906 | $ - - | $ 1,294,549 | 8.26% |
| 2019 | $ 97,207 | $ 97,207 | $ - - | $ 1,273,663 | 7.63% |
| 2018 | $ 96,443 | $ 96,443 | $ - - | $ 1,180,078 | 8.17% |
| 2017 | $ 98,201 | $ 98,201 | $ - - | $ 1,281,165 | 7.66% |
| 2016 | $ 126,469 | $ 126,469 | $ - - | $ 1,221,609 | 10.35% |

Note: This data will be presented prospectively until ten years are accumulated.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Schedules of Employer's Proportionate Share of Net OPEB Liabilities and Related Ratios**

| **Retiree Medical Insurance (RMI) Premium Contribution OPEB Plan** | **2020** | **2019** | **2018** |
|---|---|---|---|
| Employer's Proportion of the Net RMI OPEB Liability | 0.84% | 0.99% | 0.83% |
| Employer's Proportionate Share of the Net RMI OPEB Liability | $ 35,381 | $ 29,822 | $ 22,429 |
| Employer's Covered Payroll | $ 1,294,549 | $ 1,273,663 | $ 1,180,078 |
| Employer's Proportionate Share of the Net RMI OPEB Liability as a Percentage of its Covered Payroll | 2.73% | 2.34% | 1.90% |
| Plan Fiduciary Net Position as a Percentage of the Total RMI OPEB Liability | 52.74% | 58.03% | 56.55% |

| **Group Life Insurance (GLI) Program OPEB Plan** | **2019** | **2018** | **2017** |
|---|---|---|---|
| Employer's Proportion of the Net GLI OPEB Liability | 0.0044% | 0.0059% | 0.0059% |
| Employer's Proportionate Share of the Net GLI OPEB Liability | $ 71,691 | $ 89,066 | $ 89,066 |
| Employer's Covered Payroll | $ 1,273,663 | $ 1,180,078 | $ 1,281,165 |
| Employer's Proportionate Share of the Net GLI OPEB Liability as a Percentage of its Covered Payroll | 5.63% | 7.55% | 6.95% |
| Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability | 52.74% | 51.22% | 51.22% |

Note: This data will be presented prospectively until ten years are accumulated.

## FREDERICK-WINCHESTER SERVICE AUTHORITY

### Schedule of Changes in Employer's Proportionate Share of Net HIC OPEB Liability and Related Ratios

| | 2019 | 2018 | 2017 |
|---|---|---|---|
| **Total HIC OPEB liability** | | | |
| Service cost | $ 647 | $ 860 | $ 912 |
| Interest | 1,582 | 2,176 | 2,144 |
| Changes of benefit terms | - - | - - | - - |
| Differences between expected and actual experience | (2,137) | - - | - - |
| Changes in assumptions | 626 | (1,611) | (1,170) |
| Changes in annual assumption | (8,563) | - - | - - |
| Benefit payments, including refunds of employee contributions | (1,039) | (1,644) | (772) |
| **Net change in total HIC OPEB liability** | $ (8,884) | $ (219) | $ 1,114 |
| **Total HIC OPEB liability - beginning** | 31,911 | 32,130 | 31,016 |
| **Total HIC OPEB liability - ending (a)** | $ 23,027 | $ 31,911 | $ 32,130 |
| | | | |
| **Plan fiduciary net position** | | | |
| Contributions - employer | $ 1,040 | $ 1,397 | $ 1,448 |
| Contributions - employee | - - | - - | - - |
| Net investment income | 1,157 | 1,652 | 2,395 |
| Benefit payments, including refunds of employee contributions | (1,039) | (1,644) | (772) |
| Administrative expense | (25) | (39) | (40) |
| Other | (1) | (117) | 118 |
| **Net change in plan fiduciary net position** | $ 1,132 | $ 1,249 | $ 3,149 |
| **Plan fiduciary net position - beginning** | 24,667 | 23,418 | 20,269 |
| **Plan fiduciary net position - ending (b)** | $ 25,799 | $ 24,667 | $ 23,418 |
| | | | |
| **Political subdivision's net HIC OPEB liability - ending (a) - (b)** | $ (2,772) | $ 7,244 | $ 8,712 |
| | | | |
| **Plan fiduciary net position as a percentage of the total HIC OPEB liability** | 78.83% | 77.30% | 72.89% |
| | | | |
| **Covered-employee payroll** | $ 1,273,663 | $ 1,180,078 | $ 1,281,165 |
| | | | |
| **Net HIC OPEB liability as a percentage of covered-employee payroll** | -0.22% | 0.61% | 0.68% |

Note: This data will be presented prospectively until ten years are accumulated.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Schedules of OPEB Contributions**

| Date | Contractually Required Contribution (1) | Contributions in Relation to Contractually Required Contribution (2) | Contribution Deficiency (Excess) (3) | Employer's Covered Employee Payroll (4) | Contributions as a % of Covered Employee Payroll (5) |
|---|---|---|---|---|---|
| **Net Retiree Medical Insurance (RMI) Premium Contribution OPEB Plan** | | | | | |
| 2020 | $ - - | $ - - | $ - - | $ 1,294,549 | 0.00% |
| 2019 | $ - - | $ - - | $ - - | $ 1,273,663 | 0.00% |
| 2018 | $ - - | $ - - | $ - - | $ 1,281,165 | 0.00% |
| **Net Group Life Insurance (GLI) Program OPEB Plan** | | | | | |
| 2020 | $ 15,555 | $ 15,555 | $ - - | $ 1,294,549 | 1.20% |
| 2019 | $ 14,167 | $ 14,167 | $ - - | $ 1,273,663 | 1.11% |
| 2018 | $ 13,176 | $ 13,176 | $ - - | $ 1,281,165 | 1.03% |
| **Net Health Insurance Credit (HIC) Program OPEB Plan** | | | | | |
| 2020 | $ 1,380 | $ 1,380 | $ - - | $ 1,294,549 | 0.11% |
| 2019 | $ 1,297 | $ 1,297 | $ - - | $ 1,273,663 | 0.10% |
| 2018 | $ 1,306 | $ 1,306 | $ - - | $ 1,281,165 | 0.10% |

Note: This data will be presented prospectively until ten years are accumulated.

**FREDERICK-WINCHESTER SERVICE AUTHORITY**

**Notes to Required Supplemental Information**
June 30, 2019

**1. Changes of Benefit Terms – Net Pension Liability:**

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

**2. Changes in Assumptions – Net Pension Liability:**

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial study for the period from July 1, 2012 through June 30, 2016, except the change in 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 10 Largest – Non-Hazardous Duty:

| | |
|---|---|
| Mortality Rates (Pre-retirement, post-retirement healthy, and disabled) | Update 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease rate from 7.00% to 6.75% |

**3. Changes of Benefit Terms – Net HIC OPEB Liability:**

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

**4. Changes in Assumptions – Net HIC OPEB Liability:**

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial study for the period from July 1, 2012 through June 30, 2016, except the change in 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) | Update to a more current mortality table – RP-2014 projected to 2020 |
| Retirement Rates | Lowered retirement rates at older ages and extended final retirement 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease rate from 7.00% to 6.75% |

**5. Changes of Benefit Terms – Net GLI OPEB Liability:**

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

6. **<u>Changes in Assumptions – Net GLI OPEB Liability</u>:**

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial study for the period from July 1, 2012 through June 30, 2016, except the change in 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) | Update to a more current mortality table – RP-2014 projected to 2020 |
| Retirement Rates | Lowered retirement rates at older ages and extended final retirement 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 | Increase rate from 14% to 15% |
| Discount Rate | Decrease rate from 7.00% to 6.75% |