Virginia Biotechnology Research Partnership Authority

Financial Statements

June 2021 (Audited)

ACTIVATION CAPITAL

From start to phenomenal

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Annual Financial Report

for the

Virginia Biotechnology Research Partnership Authority

A Component Unit of the Commonwealth of Virginia

(Audited)
For The Fiscal Year Ended
June 30, 2021

ACTIVATION CAPITAL
From start to phenomenal

VA BIO+TECH PARK

Prepared by the Director of Business Development and Administration of the Virginia Biotechnology Research Partnership Authority

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INTRODUCTION

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November 2021

Dear Board Members and Stakeholders:

This past year was the first full fiscal year under my leadership as President and CEO of Activation Capital. As a new transplant to the region, I felt it important to begin my tenure with a regional assessment. My goal was to better understand its assets, needs, and the unique role Activation Capital could play to help grow the Commonwealth of Virginia's startup ecosystem. This process continues to be challenging during a pandemic where "business as usual" is a distant memory and the "new norm" is yet to materialize fully. Although we continue to manage the uncertainty of COVID-19, we established a strategic direction that places a greater focus on **our strengths** and on achieving operational excellence.

OPERATIONAL PIVOT

My decision to double-down on our existing work in the life sciences sector and ecosystem development was informed by our organizational strengths, the needs documented through stakeholder conversations across the state, and the projected growth areas in our region. I observed a clear opportunity to achieve organizational ambitions by evolving **how we execute** both internally and in our work with the broader community. This "operational pivot" is our near-term focus and an important precursor to a bigger, bolder future. I have set three priorities to help position Activation Capital for success: a) Grow impact from our core strengths in infrastructure, content, and convening, b) Strengthen our core business, and c) Grow our leadership in generating ecosystem results.

GROW IMPACT FROM OUR CORE STRENGTHS

Upon stepping into the CEO role, growing the organization's impact was a top priority. My assessment determined that our growth strategy should be rooted in the organization's historic strengths in infrastructure, programming, and convening and should be expanded in bold ways. As a result, we took the first steps in that direction across the organization.

Infrastructure – *We will continue operating and activating spaces but add results-focused programming that helps mature business ventures.*

The VA Bio+Tech Park (Park), our life sciences and advanced-technology campus, has been home to an important cluster of entrepreneurs for nearly 30 years. We continue to be despite the COVID-19 pandemic. Our offices and wet lab spaces are operating at full capacity and continue to experience new demand for lab space. We added ten new companies to the Biotech Center during this fiscal year. We also celebrated the relocation of Aditxt into 25,000 square feet of space in the Park this year. The company is expected to add 300 employees to our tech community over the next three years.

However, the pandemic-related disruptions across the commercial real estate industry forced the organization to reexamine the 8L building project that commenced three years ago. We conducted a new market analysis to quantify demand for life sciences space in the region. We looked comprehensively at how the 34-acre Park could be best utilized for the long-term growth of the regional innovation economy. As a result of what we learned, we established a bigger vision to evolve the Park into an innovation district with life sciences as its core. The conditions in Richmond are ripe for such an evolution: a) the prior work on 8L, b) the growth in research funding at Virginia Commonwealth University (VCU) to $363 million, c) the growing number of health and bioscience-related assets in downtown Richmond, and d) the new City Center plan advanced by the City of Richmond to refocus on an innovative live, work, play community to catalyze growth.

Entrepreneurial Content/Programming - *We will narrow our focus and offer fewer, more targeted resources to help grow the quantity and quality of tech entrepreneurs in the region.*

Historically, we hosted two signature conferences annually. This year, we hosted a hybrid "Up River" in October 2020 before ultimately deciding to sunset the UpRiver/ DownRiver conference series. In its place, we launched "Pitch Virginia" - a one-day pitch competition highlighting students, main street, and high-growth companies. Support from Capital One will enable $15,000 to be awarded to aspiring entrepreneurs. Blending small businesses with high growth into one event will enable us to experiment with a more cohesive approach to growing the Central Virginia entrepreneurial ecosystem.

Ecosystem Development - *We will invest more resources to help cultivate a life sciences specialization that positions the region competitively.*

The Park was created with a mission to grow life sciences and advanced technology entrepreneurship. Life sciences is a resilient sector with clear leaders across the U.S. Yet, more than 70% of invention disclosures from VCU represent new intellectual property in life sciences. The region's challenge has been defining a unique role and positioning in this competitive sector. As a result, Activation Capital participated in a strategic planning effort funded by GO Virginia Region 4 and VCU's College of Engineering to study and design a strategy to create an Advanced Pharmaceutical Manufacturing Cluster in Central Virginia. As momentum gains around the initiative, we will have an opportunity to help develop a globally competitive regional specialization in this area.

STRENGTHEN OUR CORE BUSINESS

To position Activation Capital for future growth, we have begun to optimize our core business in order to produce better results from existing assets. The first objective was to redesign the organization's functional areas and create new business infrastructure to protect its revenue streams and improve its ability to execute.

Functional Redesign - Activation Capital is not funded through annual state appropriations. As a result, our Finance and Accounting function is critically important to sustaining the organization and funding its long-term growth. Therefore, we allocated considerable time this fiscal year to redesign this function with outside experts' support. This redesign included migrating to cloud-based systems to improve operational efficiencies, reduce costs, and position the organization to pursue new revenue streams. We also added finance and real estate expertise to the team to help grow revenue through existing real estate channels and identify new revenue growth channels. These additions were particularly important as we continue to deepen our focus on growth opportunities in life sciences real estate. Together, these changes helped us increase operating revenue by $120,000. Finally, to achieve agility in how we operate, we will continue upgrades to IT, Operations, and Marketing functions over the next fiscal year – migrating to new technologies and methodologies.

GROW OUR LEADERSHIP IN ECOSYSTEM DEVELOPMENT

Achieving operational excellence will enable the organization to expand its reach and grow its impact in the future.

Refocus on Ecosystem Results - This year, we shifted our goal to becoming the most effective, results-generating ecosystem development leader in the state. We reworked our mission statement, which now reads, *"Grow Virginia's community of advanced tech entrepreneurs and empower them to solve the world's toughest problems."* Our goal is to increase the number of entrepreneurs using technology to solve the biggest challenges with world-changing products and services. Our key measure of success is the number of entrepreneurs/ventures that our region creates and helps become sustainable businesses. Achieving that goal requires focus.

Design Regional Entrepreneurial Pipeline -This year, we set a goal to map a clear pathway for entrepreneur development by identifying and linking university, business, and community programs. As a result, we will engage the Activation Council, VCU Innovation Gateway, and various other stakeholders differently to develop an inclusive pipeline to grow the number of entrepreneurs. During the Summer, I will add a new role to the team to oversee the development and implementation of this strategy.

This year we also stepped into our role as the organizing entity for GO Virginia Region 4's entrepreneurship strategy. Accepting this role will enable us to help build the programmatic connections across the Central Virginia entrepreneurial ecosystem. In addition, we will oversee the development of an integrated entrepreneurship strategy for the entire region in the coming year, with input from key stakeholders. In the meantime, we have begun work with VCU da Vinci Center, VCU REAL, and the Jackson Ward Collective to create the VCU Entrepreneurship Academy. This initiative proposes a new model for delivering 21st-century innovation and entrepreneurship skills through four modules in design thinking, digital literacy, business model canvas, and art of the pitch. Completing the Academy will earn Credly badges and provide the entrepreneur with a chance to be located in the new Shift Retail Lab at VCU, which will provide real-time customer feedback and is a first-of-its-kind space for the ecosystem.

Design Pathways for Diverse Founders in Tech Entrepreneurship - Activation Capital was awarded a grant from Altria to design a capacity-building program to grow diversity and inclusion in Central Virginia's Startup Ecosystem. The strategy and pilot program design will continue through the next fiscal year and seek to add on-ramps for black and brown founders into the broader entrepreneurial ecosystem. We will add diversity & inclusion expertise to the team to effectively execute on this priority.

Strengthen Capacity & Results Orientation of Entrepreneur Support Organizations (ESO) - Our mission is to grow the number of successful high-growth entrepreneurs operating in the Commonwealth of Virginia. This fiscal year, we continued to provide administrative, financial, and expert support to help achieve this goal.

- <u>Grant Funding</u> Through the Ecosystem Direct Investment Fund (EDIF), we invested in programming administered by key ESOs to accelerate high-growth technology ventures. This year's awardees included Lighthouse Labs, Startup Virginia, VCU Ventures, the Dominion Energy Innovation Center (DEIC), and 757 Collab – totaling up to $833,000 in support.
  - DEIC launched a new Energy Accelerator to educate and connect startups to Dominion Energy.
  - Startup Virginia launched the Idea Factory to support aspiring entrepreneurs.
  - Lighthouse Labs grew the number of accelerator applicants to 363 applicants - its hightest to date.
  - 757 Collab launched 757 Startup Studios to house and support entrepreneurs.

- <u>Early-Stage Funding</u> - Riverflow Growth Fund, of which Activation Capital is a founding limited partner, made its first investment, providing $250,000 to DrugViu, an artificial intelligence-driven population health platform. Focused on supporting startups in the health innovation and multi-market tech sectors, the goal of Riverflow is to help startups survive the challenging time between angel funding and Series A funding. The ecosystem development work, coupled with the investments and work Riverflow Growth Fund brings investors to Virginia, is critical in growing entrepreneurship in the region and across the Commonwealth.

LOOKING AHEAD
This year has been a year of resetting. While we had unexpected challenges, Activation Capital is better positioned to take advantage of new opportunities and help transform Central Virginia's regional ecosystem. We look forward to working with our board, regional organizations, and the Commonwealth in these endeavors.

Chandra Briggman
President/CEO

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VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

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Mary Doswell, Vice Chair
Gail Letts, Secretary
J. Robert Mooney, Interim Treasurer

Ken Ampy
Eric Edwards, M.D., Ph.D.
Vida Williams

The Hon. Brian Ball, Ex Officio
The Hon. Levar Stoney, Ex Officio

Executive Director
Chandra Briggman

Officers to the Board
Sara Maddox, Assistant Secretary to the Board

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President and CEO
Chandra Briggman

Officers to the Board
Sara Maddox, Assistant Secretary to the Board

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FINANCIAL INFORMATION

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Commonwealth of Virginia

Auditor of Public Accounts

Staci A. Henshaw, CPA
Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

December 1, 2021

The Honorable Ralph S. Northam
Governor of Virginia

The Honorable Kenneth R. Plum
Chairman, Joint Legislative Audit
and Review Commission

Board Members
Virginia Biotechnology Research Partnership Authority Board
Virginia Biotechnology Research Park Corporation Board

INDEPENDENT AUDITOR'S REPORT

Report on Financial Statements

We have audited the accompanying financial statements of the Virginia Biotechnology Research Partnership Authority (Authority), a component unit of the Commonwealth of Virginia, as of and for the year ended June 30, 2021, and the related notes to the financial statements. We were not engaged to audit the financial statements of the Authority's discretely presented component unit. These financial statements 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 an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Due to the matter described in the "Basis for Disclaimer of Opinion on the Discretely Presented Component Unit" paragraph, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion on the discretely presented component unit.

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 financial statement presentation.

Except for the matter described in the "Basis for Disclaimer of Opinion on the Discretely Presented Component Unit" paragraph, we believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Basis for Disclaimer of Opinion on the Discretely Presented Component Unit

The financial statements of the Virginia Biotechnology Research Park Corporation (Corporation) have not been audited, and we were not engaged to audit the Corporation's financial statements as part of our audit of the Authority's basic financial statements.

Disclaimer of Opinion

Because of the significance of the matter described in the "Basis for Disclaimer of Opinion on the Discretely Presented Component Unit" paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion on the financial statements of the discretely presented component unit of the Authority. Accordingly, we do not express an opinion on these financial statements.

Unmodified Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of June 30, 2021, and the changes in financial position and cash flows thereof for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Loss on Impairment

As discussed in Note 5 of the accompanying financial statements, the Authority recognized a loss on impairment of construction in progress related to construction stoppage. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the following be presented to supplement the basic financial statements: Management's Discussion and Analysis on pages 17 through 22; the Schedule of Changes in Net Pension Asset and Related Ratios on page 79; the Schedule of Employer's Share of Net OPEB Liability – Group Life Insurance Program on page 80; the Schedule of Changes in Net HIC OPEB Liability and Related Ratios on page 81; the Schedule of Employer's Share of Net OPEB Liability – Virginia Local Disability Program on page 82; the Schedules of Employer Contributions on page 83; and the Notes to Required Supplementary Information on pages 84 through 87. 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 the 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 Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated December 1, 2021, on our consideration of the 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 the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Authority's internal control over financial reporting and compliance.

Staci A. Henshaw
AUDITOR OF PUBLIC ACCOUNTS

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MANAGEMENT'S DISCUSSION AND ANALYSIS
(Unaudited)

Our discussion and analysis of the Virginia Biotechnology Research Partnership Authority's (the "Authority") financial performance provides a narrative introduction, an overview of the Authority's financial activities as of, and for, the fiscal year ended June 30, 2021, with selected comparative information for the fiscal year ended June 30, 2020. It should be read in conjunction with the Authority's accompanying financial statements and notes to the financial statements.

ABOUT THE AUTHORITY

The Virginia Biotechnology Research Partnership Authority ("VA Bio+Tech Park" or "Authority") is an emerging technologies community dedicated to fostering development of Virginia's life sciences and emerging technologies, through technology transfer, new business formation, expansion of existing businesses and business attraction. Located on 34 acres in Richmond, Virginia, the VA Bio+Tech Park is adjacent to the medical sciences campus of Virginia Commonwealth University (VCU) and the VCU Medical Center. It is also close to the state capitol, the academic campus of VCU and is only ten minutes from Richmond International Airport. The VA Bio+Tech Park is home to nearly 70 private and non-profit companies, state and federal laboratories, and research institute/administrative functions of VCU and VCU Health, filling nearly 1,100,000 square feet of laboratory and office space in seven buildings and employing approximately 2,400 researchers, scientists, engineers and support personnel. Major member organizations in the VA Bio+Tech Park include The Altria Center for Research and Technology, United Network for Organ Sharing, Phlow Corporation, Medicines for All Institute, and the Division of Consolidated Laboratory Services. The VA Bio+Tech partners with neighboring Chesterfield, Hanover and Henrico Counties to extend the reach of the VA Bio+Tech Park for sites that may accommodate larger companies on suburban campuses in the Greater Richmond area. The Dominion Energy Innovation Center located in the Town of Ashland is an affiliate of the VA Bio+Tech Park.

The Virginia Biotechnology Research Park Corporation ("Corporation" or "Activation Capital") was created in 1992 when VCU and the City of Richmond agreed to designate a site as a life science research park. The Authority was established in 1993 as a political subdivision of the Commonwealth of Virginia to disseminate knowledge pertaining to scientific and technological research and development among public and private entities, including but not limited to biotechnology, by promoting scientific research and economic development through the attraction and creation of new jobs and companies. In order to facilitate and coordinate scientific and technological research and development, the Authority promotes the industrial and economic development of the VA Bio+Tech Park and the Commonwealth, and also has authority for financing construction through bonds and other authorized means. The Authority does not have taxing powers. Operations are funded from memberships, parking, community development fees, grants, ancillary service revenues, bond issuance and other supportive and related activity. The staff of the Authority support operations.

The Authority and the Corporation have a financial and operational relationship requiring the Corporation's financial statements to be presented with the Authority's financial statements (Discretely Presented Component Unit).

In 2017, the Virginia Biotechnology Research Park Corporation (a 501c3) unveiled a new brand identity as part of continued efforts to support collaboration and coordination of high-growth innovation activities in the Richmond region: "Activation Capital: from start to phenomenal." The brand identity recognizes the uniqueness of individuals and organizations needed to strengthen and grow our regional innovation ecosystem and the support needed to take an idea and bring it to success. In addition, the Innovation Council became known as the Activation Council.

In 2018, Lighthouse Labs LLC (Lighthouse Labs) was created under Activation Capital, governed by a separate board. Lighthouse Labs is a nationally-ranked accelerator advancing the growth of high-potential companies.

The Riverflow Growth Fund I, L.P. (Partnership) was established in 2019 as an Exempt Offering under Rule 506(b) of Reg. D of the Federal Securities Act, and is organized and operated to fund early health and other advance technology companies. The Authority and the Partnership have a financial and operational relationship requiring the Partnership's financial statements to be blended into the Authority's financial statements (Blended Component Unit). Condensed combining statements are presented in the notes to the financial statements.

OVERVIEW OF ANNUAL FINANCIAL STATEMENTS

Management's Discussion and Analysis (MD&A) serves as an introduction to the basic financial statements. The MD&A represents management's examination and analysis of the financial condition and performance of the Authority. The financial statements of the Authority are presented using the accrual method of accounting. The financial statements themselves consist of the Statement of Net Position; Statement of Revenues, Expenses, and Changes in Net Position; the Statement of Cash Flows; and Notes to the Financial Statements.

The Statement of Net Position presents the financial position of the Authority including information about the type and amount of resources and obligations on June 30, 2021. The Statement of Revenues, Expenses, and Changes in Net Position presents the results of the Authority's operating and non-operating activities, and provides information as to changes to the net position. The Statement of Cash Flows presents changes in cash and cash equivalents, as a result of operational, non-operational, and financing activities.

The Notes to the Financial Statements provide required disclosures and other pertinent information necessary to provide a reader of the financial statements a complete understanding of the data being presented. The notes are comprised of information about the Authority's accounting policies, significant account balances, obligations, commitments, contingencies, and subsequent events.

CONDENSED FINANCIAL INFORMATION

Statement of Net Position

The Statement of Net Position presents the financial position of the Authority and Partnership at the end of the fiscal year. The statement includes all assets and liabilities of the Authority and its blended component unit. Net position is an indicator of the current fiscal health of the organization and the Authority's financial position over time.

A condensed summary of consolidated assets and deferred outflows, liabilities and deferred inflows, and net position at June 30, 2021 and 2020, respectively, follows:

Condensed Statements of Net Position as of June 30, 2021 and 2020

	2021	2020	Value of Change	Percentage Of Change
Assets:				
Current and other assets	$21,501,739	$25,393,417	$ (3,891,678)	(15%)
Capital assets, net	5,874,432	6,362,467	(488,035)	(8%)
Total assets	27,376,171	31,755,884	(4,379,713)	(14%)
Deferred outflows of resources:				
OPEB deferrals	26,207	21,706	4,501	21%
Pension deferrals	120,325	61,857	58,468	95%
Deferred amount on refunding	187,646	437,842	(250,196)	(57%)
Total deferred outflows of resources	334,178	521,405	(187,227)	(36%)
Liabilities:				
Current and other liabilities	5,171,157	5,112,440	58,717	1%
Long-term liabilities	65,282	4,966,490	(4,901,208)	(99%)
Total liabilities	5,236,439	10,078,930	(4,842,491)	(48%)
Deferred inflows of resources:				
OPEB deferrals	3,170	3,569	(399)	(11%)
Pension deferrals	-	19,832	(19,832)	(100%)
Total deferred inflows of resources	3,170	23,401	(20,231)	(86%)
Net position:				
Net investment in capital assets	5,874,432	6,362,467	(488,035)	(8%)
Restricted	2,644,013	3,060,904	(416,891)	(14%)
Unrestricted	13,952,295	12,751,587	1,200,708	9%
Total net position	$22,470,740	$22,174,958	$ 295,782	1%

The fifteen percent decrease in current and other assets is due principally to a decrease in the Biotech 6 Lease Receivable. The eight percent decrease in capital assets is due mainly to impairment recognized during the year on construction in progress. Deferred outflows for pension and OPEB amounts increased due to fluctuations in actuarial assumptions and results. Current liabilities increased from prior year primarily due to a decrease in construction-related accounts payable at year-end combined with (1) an increase in the current portion due on the outstanding bond and (2) an increase in amounts due to the Corporation for a grant received during the year. Long-term liabilities decreased ninety-nine percent mainly from scheduled payments made toward the outstanding bond.

Net investment in capital assets represents the land, construction in progress, equipment and lease receivable. The balance has decreased significantly from the prior year due to impairment recognized during the year on construction in progress. Restricted net position represents resources – principally cash and investments – subject to external restrictions on how they can be used. Net position restricted for pensions of $115,752 reflects the asset balance the Authority maintains and is discussed in further detail in the notes to the financials. Net position restricted for health innovation purposes of $2,528,261 represents $250,00 in existing investments and $2,278,261 held for the purpose of future investments, grants and programs that focus on health innovation. The remaining unrestricted net position may be used to fund the Authority's other ongoing obligations and initiatives.

Statement of Revenues, Expenses, and Changes in Net Position

All of the current year's revenues and expenses are accounted for in the Statement of Revenues, Expenses, and Change in Net Position. This statement measures the success of the Authority's and its blended component unit's operations and can be used to determine whether the Authority's and its blended component unit's fiscal condition has improved or worsened during the year.

A summary of the Authority and its blended component unit revenues, expenses and changes in net position for the years ended June 30, 2021 and 2020, are as follows:

Condensed Statements of Revenues, Expenses, and Changes in Net Position
for the years ended June 30, 2021 and 2020

	2021	2020	Value of Change	Percentage Of Change
Operating revenues:				
Membership income	$ 435,110	$ 405,216	$ 29,894	7%
Parking income	428,902	404,873	24,029	6%
Community development fees	291,061	290,629	432	0%
Business support services	70,131	230,379	(160,248)	(70%)
Interest income	4,810	84,007	(79,197)	(94%)
Other income	6,101	15,107	(9,006)	(60%)
Total operating revenues	1,236,115	1,430,211	(194,096)	(14%)
Operating expenses:				
Salaries and benefits	785,394	791,780	(6,386)	(1%)
Marketing and promotion	98,812	246,391	(147,579)	(60%)
Occupancy costs	238,998	197,178	41,820	21%
Administrative	562,327	395,740	166,587	42%
Depreciation expense	45,008	53,593	(8,585)	(16%)
Total operating expenses	1,730,539	1,684,682	45,857	3%
Operating loss	(494,424)	(254,471)	(239,953)	(94%)
Non-operating revenues and expenses	790,206	1,147,814	(357,608)	(31%)
Change in net position	295,782	893,343	(597,561)	(67%)
Net position - beginning of year	22,174,958	21,281,615	893,343	4%
Net position - end of year	$22,470,740	$22,174,958	$ 295,782	1%

Operating revenues decreased fourteen percent due to 1) decrease in interest income earned during the year attributable to overall decline in both interest rates and amounts invested in LGIP and 2) decrease in business support service fees from VCU Ventures. Operating expenses increased three percent from the prior fiscal year mainly due to a significant decline in costs incurred during the year for marketing and promotional expenses due to the inability to host in-person events because of social distancing restrictions combined with an increase related to $199,888 in strategic and capital planning costs incurred during 2021. Net non-operating revenues and expenses decreased thirty-one percent due to a combination of the following: increase of $2,138,596 in performance on investments, decrease in grant contributions ($1,500,000), and recognition of ($935,685) loss on impairment of construction costs.

Statement of Cash Flows

The Statement of Cash Flows provides information about the cash receipts, cash payments, and net changes in cash resulting from operations, investing and financing activities, and provides insight as to the major sources and uses of cash applicable to the fiscal year. A condensed summary of the Statement of Cash Flows for the Authority and its Blended Component Unit for the fiscal years 2021 and 2020, respectively follows:

Condensed Statements of Cash Flows
for the years ended June 30, 2021 and 2020

	2021	2020	Value of Change	Percentage Of Change
Cash flows from operating activities	$ (308,683)	$ (185,293)	$ (123,390)	(67%)
Cash flows from non-capital financing activities	(713,376)	770,240	(1,483,616)	(193%)
Cash flows from capital and related financing activities	(678,945)	(2,389,656)	1,710,711	72%
Cash flows from investing activities	470,109	621,459	(151,350)	(24%)
Net decrease in cash and cash equivalents	(1,230,895)	(1,183,250)	(47,645)	(4%)
Cash - beginning of year	5,887,178	7,070,428	(1,183,250)	(17%)
Cash - end of year	$ 4,656,283	$ 5,887,178	$ (1,230,895)	(21%)

Cash flow from operating activities decreased $123,390 due to increases in both parking and memberships, a decrease in costs related to marketing expenses as discussed above, approximately $208,000 in increased outflows related to Riverflow-related administrative costs during the year, in addition to approximately $200,000 in costs during FY21 related to strategic and capital planning. Cash flow from non-capital financing activities decreased primarily as a result of a $1,500,000 one-time contribution received in the prior year. Cash flows from capital and related financing activities reflects a decrease in construction in progress costs from the prior year. Cash flows from investing activities decreased due to a $106,566 increase in withdrawals from Commonfund as compared to the prior year combined with a total ($250,000) outflow related to Riverflow investments made. Overall available cash and cash equivalents decreased from approximately $5.9 million at the end of FY 2020 to approximately $4.7 million at the end of FY 2021, of which, $2.5 million is restricted for health innovation purposes.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Authority's investment in capital assets as of June 30, 2021, amounted to approximately $5.9 million (net of accumulated depreciation). This investment in capital assets primarily includes land, construction in progress, and equipment. As more fully described in Note 5, construction in progress has temporarily halted and will re-commence once adequate pre-leasing activity has occurred or significant capital has been raised. Once re-started, construction should take approximately 18 to 22 months to complete.

Long-Term Debt

The Authority's Lease Revenue Refunding bonds were issued in 2009 for $36.7 million. Proceeds were used to refund a portion of the Authority's Lease Revenue bonds issued in 2001, which were paid in full fiscal year 2012. The 2009 bonds carry an AA+ rating from Standard and Poor's, Aa1 rating from Moody's Investor Services and AA+ rating from Fitch Rating, Inc. The entire balance of approximately $4.9 million was included in current liabilities at June 30, 2021.

CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT

This financial report is designed to provide citizens, customers, investors, and creditors with a general overview of the Authority's finances and to show the Authority's accountability for the money we receive. If you have any questions about this report or need additional financial information, please contact the Authority's management at 800 East Leigh Street, Richmond, VA 23219, (804) 828-0963.

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VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Statement of Net Position

As of June 30, 2021

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
ASSETS				
Current assets:				
Cash and cash equivalents (Notes 1 & 2)	$ 627,945	$ 752,641	$ -	$ 1,380,586
Cash and cash equivalents with Local Government Investment Pool (Notes 2)	1,750,077	-	-	1,750,077
Accounts receivable	22,304	-	-	22,304
Grants receivable	-	102,079	(102,079)	-
Prepaid expenses	23,722	-	-	23,722
Net investment in lease receivable - current portion (Note 6)	4,640,000	-	-	4,640,000
Total current assets	7,064,048	854,720	(102,079)	7,816,689
Non-current assets:				
Restricted cash and cash equivalents with Local Government Investment Pool (Notes 2 & 14)	2,278,261	-	-	2,278,261
Net pension asset (Note 9)	115,752	-	-	115,752
Equity in partnerships (Note 4)	55,625	-	-	55,625
Investments (Notes 2 & 3)	11,988,053	-	-	11,988,053
Non-depreciable capital assets (Note 5)	5,755,599	-	-	5,755,599
Depreciable capital assets, net (Note 1 & 5)	118,833	-	-	118,833
Total non-current assets	20,312,123	-	-	20,312,123
Total assets	27,376,171	854,720	(102,079)	28,128,812
DEFERRED OUTFLOWS OF RESOURCES				
OPEB deferrals (Notes 10, 11, & 12)	26,207	-	-	26,207
Pension deferrals (Note 9)	120,325	-	-	120,325
Deferred amount on bond refunding (Note 1)	187,646	-	-	187,646
Total deferred outflows of resources	334,178	-	-	334,178

The Accompanying Notes to Financial Statements are an integral part of this statement

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Statement of Net Position (Continued)

As of June 30, 2021

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
LIABILITIES				
Current liabilities:				
Accounts payable	$ 125,528	$ 5,689	$ (102,079)	$ 29,138
Customer deposits	8,633	-	-	8,633
Compensated absences (Note 1)	51,947	-	-	51,947
Unearned revenue	81,862	2,083	-	83,945
Long-term debt - current portion (Note 8)	4,903,187	-	-	4,903,187
Total current liabilities	5,171,157	7,772	(102,079)	5,076,850
Non-current liabilities:				
Net OPEB liability (Notes 10, 11, & 12)	65,282	-	-	65,282
Total liabilities	5,236,439	7,772	(102,079)	5,142,132
DEFERRED INFLOWS OF RESOURCES				
OPEB deferrals (Notes 10, 11, and 12)	3,170	-	-	3,170
Total deferred inflows of resources	3,170	-	-	3,170
NET POSITION				
Net investment in capital assets	5,874,432	-	-	5,874,432
Restricted for pensions	115,752	-	-	115,752
Restricted for designated programs	-	846,948	-	846,948
Restricted for health innovation purposes	2,528,261	-	-	2,528,261
Unrestricted	13,952,295	-	-	13,952,295
Total net position	$22,470,740	$ 846,948	$ -	$23,317,688

The Accompanying Notes to Financial Statements are an integral part of this statement

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Statement of Revenues, Expenses, and Changes in Net Position

For the year ended June 30, 2021

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
Operating revenues:				
Membership income	$ 435,110	$ -	$ -	$ 435,110
Parking income	428,902	-	-	428,902
Community development fees	291,061	-	-	291,061
Business support services	70,131	-	-	70,131
Program revenues and contributions	-	1,277,222	(500,991)	776,231
Interest Income	4,810	-	-	4,810
Other income	6,101	-	-	6,101
Total operating revenues	1,236,115	1,277,222	(500,991)	2,012,346
Operating expenses:				
Salaries and benefits	785,394	289,213	-	1,074,607
Marketing and promotion	98,812	22,446	-	121,258
Occupancy costs	238,998	29,675	-	268,673
Administrative	562,327	150,513	(103,374)	609,466
Program expenses	-	420,848	-	420,848
Depreciation expense (Note 5)	45,008	600	-	45,608
Total operating expenses	1,730,539	913,295	(103,374)	2,540,460
Income (Loss) from operations	(494,424)	363,927	(397,617)	(528,114)
Non-operating revenue/(expenses):				
Interest revenue	342,375	-	-	342,375
Interest expense	(241,655)	-	-	(241,655)
Gain on sale of assets	15,000	-	-	15,000
Grant distributions	(813,376)	-	397,617	(415,759)
Net gain on investments	2,423,547	-	-	2,423,547
Loss on impairment	(935,685)	-	-	(935,685)
Total non-operating revenue, net	790,206	-	397,617	1,187,823
Change in net position	295,782	363,927	-	659,709
Net position - beginning of year	22,174,958	483,021	-	22,657,979
Net position - end of year	$ 22,470,740	$ 846,948	$ -	$ 23,317,688

The Accompanying Notes to Financial Statements are an integral part of this statement

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Statement of Cash Flows

For the year ended June 30, 2021

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
Cash flows from operating activities:				
Cash received from memberships	$ 479,990	$ -	$ -	$ 479,990
Cash received from parking	450,813	-	-	450,813
Cash received from community development fees	296,336	-	-	296,336
Cash received from business support services	141,573	-	-	141,573
Cash received from miscellaneous income	6,275	-	-	6,275
Cash received from donors and grantors	-	1,060,195	(397,617)	662,578
Cash received for interest	4,810	-	-	4,810
Payments for personnel expenses	(772,603)	(290,678)	-	(1,063,281)
Payments for marketing expenses	(97,336)	(22,310)	-	(119,646)
Payments for occupancy expenses	(232,598)	(29,675)	-	(262,273)
Payments for administrative expenses	(585,943)	(61,862)	-	(647,805)
Payments for program services	-	(427,998)	-	(427,998)
Net cash provided by (used in) operating activities	(308,683)	227,672	(397,617)	(478,628)
Cash flows from non-capital financing activities:				
Grant pass-through received	100,000	-	-	100,000
Grant distributions from EDIF	(813,376)	-	397,617	(415,759)
Net cash used in non-capital financing activities	(713,376)	-	397,617	(315,759)
Cash flows from capital and related financing activities:				
Proceeds from sale of assets	15,000	-	-	15,000
Purchase of capital assets	(693,945)	-	-	(693,945)
Net cash used in capital and related financing activities	(678,945)	-	-	(678,945)
Cash flows from investing activities:				
Proceeds from Commonfund investments	706,566	-	-	706,566
Purchase of Riverflow investments	(250,000)	-	-	(250,000)
Interest and dividends	13,543	-	-	13,543
Net cash provided by investing activities	470,109	-	-	470,109
Net increase (decrease) in cash	(1,230,895)	227,672	-	(1,003,223)
Cash and cash equivalents - 6/30/20	5,887,178	524,969	-	6,412,147
Cash and cash equivalents - 6/30/21	$ 4,656,283	$ 752,641	$ -	$ 5,408,924
Reconciliation of cash and cash equivalents to the statement of net position:				
Cash and cash equivalents	$ 627,945	$ 752,641	$ -	$ 1,380,586
Cash and cash equivalents with Local Government Investment Pool	1,750,077	-	-	1,750,077
Restricted cash and cash equivalents with Local Government Investment Pool	2,278,261	-	-	2,278,261
Total cash and cash equivalents	$ 4,656,283	$ 752,641	$ -	$ 5,408,924

The Accompanying Notes to Financial Statements are an integral part of this statement

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Statement of Cash Flows (Continued)

For the year ended June 30, 2021

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
Reconciliation of net operating income (loss) to net cash provided by (used in) operating activities:				
Operating income (loss)	$ (494,424)	$ 363,927	$ (397,617)	$ (528,114)
Adjustments to reconcile operating loss to net cash used in operating activities:				
Depreciation expense	45,008	600	-	45,608
Changes in operating assets and liabilities:				
Receivables	70,584	(37,819)	-	32,765
Prepaid expenses	(12,813)	-	-	(12,813)
Accounts payable	(8,436)	(23,202)	-	(31,638)
Unearned revenue	68,874	(75,834)	-	(6,960)
Leave accrual	(37,705)	-	-	(37,705)
Net pension asset and related deferred inflows/outflows of resources	63,150	-	-	63,150
Net OPEB liability and related deferred inflows/outflows of resources	(2,921)	-	-	(2,921)
Net cash provided (used) by operating activities	$ (308,683)	$ 227,672	$ (397,617)	$ (478,628)

Supplemental disclosure of non-cash investing and financing activity:

	Authority	Component Unit - Corporation	Eliminations	Total Reporting Entity
Decrease in net investment in lease receivable	$ (4,415,000)	$ -	$ -	$ (4,415,000)
Unrealized gain on Commonfund investments	2,410,004	-	-	2,410,004
Amortization of deferred amount on bond refunding	(250,196)	-	-	(250,196)
Loss on impairment of capital assets	935,685	-	-	935,685
Decrease in long-term debt, including amortization of bond premium	4,765,916	-	-	4,765,916
Authority's In-Kind contributed services to the Corporation	-	103,374	-	103,374

The Accompanying Notes to Financial Statements are an integral part of this statement

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The Virginia Biotechnology Research Partnership Authority (Authority) began operations July 1, 1993. The Authority promotes the industrial and economic development of the VA Bio+Tech Park and the Commonwealth, and also has authority for financing construction through bonds and other authorized means. The Authority does not have taxing powers. Operations are funded from memberships, parking, community development fees, grants, ancillary service revenues, bond issuance and other supportive and related activity.

The Authority is a component unit of the Commonwealth and is included in the basic financial statements of the Commonwealth. A separate report is prepared for the Commonwealth that includes all agencies, boards, commissions, and authorities over which the Commonwealth exercises or has the ability to exercise oversight authority.

The accompanying annual financial report includes the financial activities of the Authority, and its blended component unit. Financial information for the Authority and the component unit is accounted for in the accompanying financial statements in accordance with principles defining the governmental reporting entity adopted by the Government Accounting Standards Board.

Discretely Presented Component Unit

The Virginia Biotechnology Research Park Corporation (the Corporation) is an Internal Revenue Code Section 501(c) (3) corporation and is organized and operated exclusively for scientific, educational, and charitable purposes. The Corporation created a limited liability company called Lighthouse Labs LLC (the "Company"). The Corporation is the sole member of the Company and has the responsibility of managing the business and affairs under an operating agreement. The Authority and the Corporation have a financial relationship that requires the Corporation's financial statements be presented discretely with those of the Authority's financial statements.

Blended Component Units

Riverflow Growth Fund Manager, LLC (the Company), is a single-member limited liability company of which the Authority is the sole member. The Company is organized exclusively to manage Riverflow Growth Fund I, L.P. (the Partnership) in which the Company has a 1% general partnership interest. The Authority has a 99% limited partnership interest in the Partnership. The Partnership was formed to create pre-seed and seed-stage investments. The Authority, the Company, and the Partnership have a financial and operating relationship that required the Company's and the Partnership's financial statements to be blended in the Authority's financial statements. Administrative expenses of the Riverflow Growth Fund entities are classified as operating, and investment expenses are classified as non-operating on the statement of revenues, expenses and changes in net position.

Condensed combining financial statements for the Authority and its blended component units are presented in Note 15.

Basis of Accounting

The financial statements of the Authority have been prepared using the economic resources measurement focus and the accrual basis of accounting in conformity with generally accepted accounting principles, which provides that revenues are recorded when earned and expenses are recorded when incurred. It is the policy of the Authority to first apply restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position are available.

The Authority defines operating revenues as revenue derived from the primary business activities of the Authority. These activities include the following: 1) membership revenues; 2) contributed income directly supporting the operations or advancement of the VA BIO+TECH PARK; 3) revenue derived from ownership and management of parking surface lots within the footprint of the VA BIO+TECH PARK; and 4) community development fees and other miscellaneous revenue sources such as event fees for conference facilities, and expenditure reimbursements that are not related to a specific capital outlay project.

The Authority defines non-operating revenues as revenue that does not meet the definition of operating revenue, as defined above.

The Authority defines operating expenses as expenses incurred in the ordinary course of business and necessary for the day-to-day functioning of the Authority. Operating expenses include such expenses as salaries, occupancy costs, marketing and administrative expenses.

The Authority defines non-operating expenses as expenses that do not meet the definition of operating expenses, as defined above. These expenses include interest expense, investment losses, capital related items such as the loss on sale of assets and loss on impaired assets. Non-operating activities also include items that are either unusual in nature or infrequent in occurrence.

The Authority established the Ecosystem Direct Investment Fund (EDIF) from resources obtained through the sale of Biotech 8 to support organizations providing support to entrepreneurs and companies in the innovation and entrepreneurial ecosystem. Distributions from this fund are classified as non-operating activities.

The Corporation defines operating revenues as revenue derived from grants, donations, awards and other funds received for programs.

Cash and Cash Equivalents

For the purpose of reporting cash flows, the Authority considers all highly-liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Investments

Investments in marketable debt in equity securities held by Riverflow and Commonfund are valued using fair value measurements in accordance with GASB Statement No.72, *Fair Value Measurements and Application* (GASB 72). See Note 3 for additional information on the Authority's investments measured at fair value. The Authority also invests in certain partnerships to further the Authority's mission and purpose to promote scientific research and economic development through the attraction and creation of new jobs and companies. Equity in partnerships is valued at cost. See Note 4 for additional information on the Authority's equity in partnerships.

Asset Capitalization and Depreciation Method

Capital assets are generally assets with an initial cost of $2,500 or more and an estimated useful life in excess of two years. Capital assets are valued at historical costs or estimated historical cost if actual cost is not available. Capital assets are comprised of land, buildings, equipment, construction in progress, trademarks, and leasehold improvements. Donated capital assets are carried at acquisition value at the date of contribution. Accumulated depreciation is reported on the statement of net position. Depreciation is computed on the straight-line basis over the estimated useful life of the asset.

Land	Non-depreciable assets
Buildings	20-48 years
Leasehold Improvements	5-15 years
Equipment	3-20 years
Trademark	5-10 years

The costs for maintenance and repairs are charged to occupancy and shared lab expense as incurred. When items are retired or otherwise disposed of, the related costs and accumulated depreciation are removed from the accounts and any resulting profit or loss on such dispositions is reflected in non-operating activities on the statement of revenues, expenses, and changes in net position.

Long-Term Debt

Long-term debts are reported as liabilities in the statement of net position. In accordance with paragraph 146 of GASB Statement No. 34, bond premiums and discounts are deferred and amortized over the life of the bonds using the straight-line method. Bonds payable are reported net of the applicable bond premium or discount.

Compensated Absences

Compensated absences represent the amounts of paid time off (PTO) hours earned by employees, but not taken at June 30, 2021. PTO combines traditional vacation and sick leave. All full-time staff receive 30 days of PTO on January 1 of each year. The amount reflects all earned PTO and related payroll taxes to be paid under the Authority's leave pay out policy upon employment termination.

Interest Income

Interest income and expense from operating and Local Government Investment Pool accounts are recorded as operating revenue. Interest income and administrative fees related to the investment and bond accounts are recorded as non-operating revenue.

Unamortized Deferred Amount on Refunding

The deferred amount on refunding, resulting from the advance refunding of a portion of the Series 2006 Revenue Bonds, is being amortized on a straight-line basis over the life of the Series 2009 Bond, and as of June 30, 2021, had a balance of $187,646. The amortization of $250,196 is included in interest expense for fiscal year 2021.

Pensions

The Authority participates in the Virginia Retirement System (VRS) Political Subdivision Retirement Plan which is a multi-employer, agent plan. For purposes of measuring the net pension liability/asset, 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.

Health Insurance Credit Program

The Political Subdivision Health Insurance Credit Program is a multiple-employer, agent defined benefit plan that provides a credit toward the cost of health insurance coverage for retired political subdivision employees of participating employers. The Political Subdivision Health Insurance Credit Program was established pursuant to §51.1-1400 et seq. of the *Code of Virginia*, as amended, and which provides the authority under which benefit terms are established or may be amended. For purposes of measuring the net Political Subdivision Health Insurance Credit Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Health Insurance Credit Program OPEB, and the Political Subdivision Health Insurance Credit Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Political Subdivision Health Insurance Credit Program; and the additions to/deductions from the VRS Political Subdivision Health Insurance Credit Program's net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Group Life Insurance Program

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

Political Subdivision Employee Virginia Local Disability Program

The Virginia Retirement System (VRS) Political Subdivision Employee Virginia Local Disability Program is a multiple-employer, cost-sharing plan. For purposes of measuring the net Political Subdivision Employee Virginia Local Disability Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Political Subdivision

Employee Virginia Local Disability Program OPEB, and the Political Subdivision Employee Virginia Local Disability Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Political Subdivision Employee Virginia Local Disability Program; and the additions to/deductions from the VRS Political Subdivision Employee Virginia Local Disability Program's net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

2. DEPOSITS AND INVESTMENTS

<u>Deposits</u>

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

Other funds of the Authority are invested in the State Treasurer's Local Government Investment Pool (LGIP). LGIP enables governmental entities to maximize their return on investments by providing for a State administered fund where monies can be commingled for investment purposes in order to realize the economies of large-scale investing and professional funds management. The LGIP is managed in accordance with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 79, *Certain External Investment Pools and Pool Participants*. The LGIP is in compliance with all of the standards of GASB Statement No. 79 and elects to report its investments for financial reporting at amortized cost. Participants in the LGIP should also report their investments in the LGIP at amortized cost. The LGIP is rated AAA by Standard & Poor's rating service.

<u>Investments</u>

Code of Virginia Section 2.2-4500 et.seq. authorize local governments and other public bodies to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof; obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, and the African Development Bank; "prime quality" commercial paper and certain corporate notes; banker's acceptances repurchase agreements; and the State Treasurer's Local Government Investment Pool (LGIP).

<u>Concentration of Credit Risk</u>

The Authority places no limit on the amount the Authority may invest in any one issuer. More than 5 percent of the Authority's investments are in Commonfund Institutional Multi-Strategy Equity Fund, LLC and Commonfund Institutional Multi-Strategy Bond Fund, LLC. These investments are sixty-eight percent and thirty-two percent, respectively, of the Authority's total investments in Commonfund.

The Authority invests in external investment pools and other pooled investments, which are not subject to the concentration of credit risk.

Credit Risk

The Commonfund is an external investment pool whose asset portfolio is unrated.

Interest Rate Risk

As of June 30, 2021, the weighted average effective duration for the Commonfund Institutional Multi-Strategy Bond Fund, LLC was 6.4 years.

Foreign Currency Risk

The Authority's exposure to foreign currency risk derives from its holdings of foreign securities and the use of derivatives to hedge the related foreign currency exposure back to the U.S. dollar.

3. INVESTMENTS

Investments Measured at Net Asset Value

Investments measured at net asset value (NAV) per share are valued using the practical expedient at the Authority's pro-rata interest in the net assets of these funds. Investments held by these funds are valued at prices which approximate fair value. The fair value of certain investments in the underlying entities, which may include private placements and other securities for which values are not readily available, are determined in good faith by the investment advisors of the respective funds and may not reflect amounts that could be realized upon immediate sale, nor amounts that may be ultimately realized. Net asset valuations are provided monthly by these funds.

In relation to the investment funds in the following table valued using the practical expedient, the following information is presented regarding the nature of the Authority's investment and related commitments as of June 30, 2021. The fair value of the investments in each fund has been estimated using the NAV per share of investments.

Investments Measured at the Net Asset Value

	Fair Value	Unfunded Commitments	Eligible Redemption Frequency	Redemption Notice Period
Commonfund:				
Multi-Strategy Equity Fund	$ 8,003,196	n/a	Monthly	5 business days
Multi-Strategy Bond Fund	3,734,857	n/a	Monthly	5 business days
	$ 11,738,053			

1. Multi-Strategy Equity Funds. To offer an actively managed, multi-manager investment program that will provide broad exposure to global equity markets. The fund seeks to add value net of fees above the return of the U.S. equity market, as measured by the S&P 500 Index, over a full market cycle. The fund's risk characteristics will vary from those of the S&P 500 due to its diversified exposures to equity markets outside of that

index, including non-U.S. equity markets and to certain marketable alternative strategies. A separate composite benchmark consists of typical allocations to these strategies that the Commonfund investment managers believe provides greater insight on nearer term performance drivers and fund characteristics. It also provides an appropriate framework to understand the impact of allocation changes over time. The weights reflected in the composite represent our expectations for long run, average exposures to the strategies.

2. Multi-Strategy Bond Funds. To offer an actively managed, multi-manager investment program that will provide broad exposure to global debt markets. The fund seeks to add value above the return of the broad U.S. Bond market, as measured by the Barclay's Capital U.S. Aggregate Bond Index, net of fees and to provide competitive returns relative to the Russell U.S. Core Plus Fixed Income Universe. The fund's risk characteristics will vary from those of the Index due to its diversified exposures to sectors outside of the Index, including below investments grade debt and international bond and currency markets.

<u>Investments Measured at Fair Value</u>

Riverflow Fund Growth Fund I, LP (the Partnership) categorizes its fair value measurements 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. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Partnership's investments in private companies are categorized in Level 3 of the fair value hierarchy.

The Partnership makes investments in privately-held companies focused on health innovation. In December, 2020, the Partnership made its first investment of $250,000. The transaction price, excluding transaction costs, is typically the best estimate of fair value at inception. When evidence supports a change to the carrying value from the transaction price, adjustments are made to reflect expected exit values in the investment's principal market under current market conditions. Ongoing reviews by management are based on an assessment of trends in the performance of each underlying investment from the inception date through the most recent valuation date.

These assessments typically incorporate valuation techniques using the income and market approaches. The income approach measures the present worth of anticipated future economic benefits (i.e. net cash flows). The net cash flow is forecast over the expected remaining economic life and discounted to present value using an appropriate risk-adjusted discount rate. The market approach includes an analysis of valuation metrics of comparable public companies and recent merger and acquisition transactions for the development of multiples used in valuation. The Partnership generally uses multiple valuation techniques for a particular investment and estimates its fair value based on a weighted average or a selected outcome within a range of multiple valuation results.

Investments valued using an income approach utilized discount rates. Additional inputs relied upon in this approach include annual projected cash flows for each investment through their respective investment horizons. These cash flow assumptions may be probability-weighted to reflect the risks associated with achieving expected performance levels across various business scenarios. Under the income approach, the privately-held nature of an investment may be reflected in the magnitude of the selected range of discount rates or through application of separate liquidity discounts. Investments valued using a market approach utilized valuation multiples based on earnings before interest, taxes, depreciation and amortization ("EBITDA"), or another performance metric such as revenues or net earnings. The selected valuation multiples were estimated through a comparative analysis of the performance and characteristics of each investment within a range of comparable companies or transactions in the observable marketplace. In addition, the Partnership generally applies liquidity discounts and control premiums, dependent upon the characteristics of the individual investment and its respective marketplace.

At June 30, 2021, the approximate fair value of investments in private companies was $250,000

4. EQUITY IN PARTNERSHIPS

As of June 30, 2021, the Authority had equity interests in corporations with a book value of $55,625.

5. CAPITAL ASSETS

A summary of changes in the Authority's Capital Assets for the year ended June 30, 2021, is presented as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
Authority				
Non-depreciable capital assets:				
Land	$ 3,369,446	$ -	$ -	$ 3,369,446
Construction in progress	2,830,031	491,807	935,685	2,386,153
Total non-depreciable capital assets	$ 6,199,477	$ 491,807	$ 935,685	$ 5,755,599
Depreciable capital assets:				
Equipment	$ 416,898	$ -	$ -	$ 416,898
Leasehold improvements	32,131	850	-	32,981
Trademark	146,649	-	-	146,649
Total depreciable capital assets	595,678	850	-	596,528
Less accumulated depreciation for:				
Equipment	367,116	12,380	-	379,496
Leasehold improvements	6,912	3,298	-	10,210
Trademark	58,660	29,329	-	87,989
Total accumulated depreciation	432,688	45,007	-	477,695
Depreciable capital assets, net	$ 162,990	$ (44,157)	$ -	$ 118,833
Discretely Presented Component Unit - Corporation				
Depreciable capital assets:				
Equipment	$ 1,800	$ -	$ -	$ 1,800
Less accumulated depreciation for:				
Equipment	1,200	600	-	1,800
Depreciable capital assets, net	$ 600	$ (600)	$ -	$ -

During 2021, the Authority has recognized a loss on impairment of construction in progress (CIP) assets related to stoppage of construction of the 8L Project, which would have included a mixed-use life science space and parking deck. The economic, environmental, and political climate has changed since the commencement of this construction project and as a result, it has been put on hold. Costs incurred to date on the project include site due diligence and preparation, along with full design and pre-construction activities. The Authority has analyzed the CIP costs and considers expenses paid for project management, general contractor oversight, and consulting related to the financing of the building, totaling $935,685, to be permanently impaired as the time and effort for these activities will need to be replaced.

The remaining costs in CIP of $2,386,153 are related to permitting, site preparation, and architectural pre-design. While the project may require design modification, at this time it is unknown. At a minimum, the original design will be the starting point on this project. The Authority has assessed these costs to have no decline in service utility at this time.

6. LEASE RECEIVABLE

The Authority has a capital lease agreement with the Commonwealth's Department of General Services for the Bio+Tech Six building. The capital lease has a value of $4,756,000 at June 30, 2021, which equals the remaining principal and interest due on the debt for the Bio+Tech Six building. The financial statements include unearned income of $116,000 related to the capital lease receivable for interest due in future periods. Payments by the Commonwealth's Department of the Treasury under this capital lease agreement are made directly to a bond trustee for payment of the related lease revenue bonds (see Note 8). Therefore, the amortization of this lease receivable and the related lease revenue bonds payable are considered non-cash transactions as reported in the statement of cash flows.

At June 30, 2021, all remaining lease payments, which total $4,756,000, are due in the next fiscal year (i.e. 2022).

The following lists the components of the net investment in lease receivable as of June 30, 2021:

Minimum lease payments receivable	$ 4,756,000
Less: unearned revenue	(116,000)
Total net investment in lease receivable	$ 4,640,000

7. CONDUIT DEBT OBLIGATIONS

On April 9, 2002, the Authority issued $12,000,000 in Series 2002 Variable Rate Revenue Bonds to fund construction of the Bio+Tech Seven project. Bio+Tech Seven is an office and data facility built specifically for United Network for Organ Sharing (UNOS). These bonds have a scheduled maturity date of April 1, 2027. The total amount of bonds outstanding at June 30, 2021, is $4,085,000.

The bonds do not constitute a debt or pledge of the faith and credit of the Authority or the Commonwealth and accordingly have not been reported in the accompanying financial statements.

8. NON-CURRENT LIABILITIES

The Authority's non-current liabilities consist of long-term debt, accrued, and other non-current liabilities.

Long-term debt of the Authority consists of the following bonds at June 30, 2021:

Original issuance rates of 3.00 percent to 5.00 percent Virginia Biotechnology Research Partnership Authority Commonwealth of Virginia Lease Revenue Bonds, (Biotech Six Consolidated Laboratories Project), Series 2009.	$ 4,640,000

A summary of changes in the Authority's non-current liabilities for the year ended June 30, 2021, is presented as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Due within One Year
Bonds payable:					
Commonwealth of Virginia lease revenue bonds	$ 9,055,000	$ -	$ 4,415,000	$ 4,640,000	$ 4,640,000
Unamortized bond premium	614,103	-	350,916	263,187	263,187
Net bonds payable	9,669,103	-	4,765,916	4,903,187	4,903,187
Net OPEB liability	63,303	1,979	-	65,282	-
Total long-term liabilities	$ 9,732,406	$ 1,979	$ 4,765,916	$ 4,968,469	$ 4,903,187

Long-term debt matures as follows:

Fiscal year	Principal	Interest	Total
2022	$ 4,640,000	$ 116,000	$ 4,756,000

9. DEFINED BENEFIT PENSION PLAN

Plan Description

All full-time, salaried permanent employees of the Political Subdivision Authority are automatically covered by VRS Retirement Plan upon employment. This 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 pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria a 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 table below:

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
About Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, service credit and average final compensation at retirement using a formula.	**About Plan 2** Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, service credit and average final compensation at retirement using a formula.	**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, service credit 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 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. ***Hybrid Opt-In Election***	**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 Members** Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes: • Political subdivision employees* • Members in Plan 1 or Plan 2 who elected to opt into

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.	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.	the plan during the election window held January 1-April 30, 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 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 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.	**Retirement Contributions** Same as Plan 1.	**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.
Service credit Service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit 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.	**Service credit** Same as Plan 1.	**Service credit** ***Defined Benefit Component:*** Under the defined benefit component of the plan, service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit 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 Contributions Component:*** Under the defined contribution component, service credit is used to determine vesting for the employer contribution portion of the plan.
Vesting Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of service credit. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be	**Vesting** Same as Plan 1.	**Vesting** ***Defined Benefit Component:*** Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of service credit. Plan 1 or Plan 2 members with at least five years (60 months) of

vested to receive a full refund of their member contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.		service credit who opted into the Hybrid Retirement Plan remain vested in the defined benefit component. ***Defined Contributions 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. 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 two years, a member is 50% vested and may withdraw 50% of employer contributions. • After three years, a member is 75% vested and may withdraw 75% of employer contributions. • After four or more years, a member is 100% vested and may withdraw 100% of employer contributions. Distribution is not required, except as governed by law.
Calculating the Benefit The basic benefit is determined using the average final compensation, service credit, and plan multiplier. An early retirement reduction is applied to this amount if the member is retiring with a	**Calculating the Benefit** See definition under Plan 1.	**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

reduced benefit. In cases where the member has elected an optional form of retirement payment, an option factor specific to the option chosen is then applied.		employer, plus net investment earnings on those contributions.
Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.	**Average Final Compensation** A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.	**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 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%.	**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 service credit earned, purchased or granted on or after January 1, 2013.	**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 Age 65.	**Normal Retirement Age** Normal Social Security retirement age.	**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 Age 65 with at least five years (60 months) of service credit or at age 50 with at	**Earliest Unreduced Retirement Eligibility** Normal Social Security retirement age with at least five years (60 months) of	**Earliest Unreduced Retirement Eligibility** ***Defined Benefit Component:*** Normal Social Security retirement age and have at

least 30 years of service credit.	service credit or when their age and service equal 90.	least five years (60 months) of service credit or when their age and service equal 90. ***Defined Contribution Component:*** Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Reduced Retirement Eligibility Age 55 with at least five years (60 months) of service credit or age 50 with at least 10 years of service credit.	**Earliest Reduced Retirement Eligibility** Age 60 with at least five years (60 months) of service credit.	**Earliest Reduced Retirement Eligibility** ***Defined Benefit Component:*** Age 60 with at least five years (60 months) of service credit. ***Defined Contribution Component:*** Members are eligible to receive distributions upon leaving employment, subject to restrictions.
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 service credit, 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 service credit, the COLA will go into effect on July 1 after one calendar year following	**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%), for a maximum COLA of 3%. ***Eligibility:*** Same as Plan 1	**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.

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. • 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 or the 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.	***Exceptions to COLA Effective Dates:*** Same as Plan 1	***Exceptions to COLA Effective Dates:*** Same as Plan 1 and Plan 2.
Disability Coverage Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted.	**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.	**Disability Coverage** Employees of political subdivisions (including Plan 1 and Plan2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides and 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 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 service credit in their plan. Prior service credit counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.	**Purchase of Prior Service** Same as Plan 1.	**Purchase of Prior Service** ***Defined Benefit Component:*** Same as Plan 1, with the following exceptions: • Hybrid Retirement Plan members are ineligible for ported service. ***Defined Contribution Component:*** Not applicable.

Employees Covered by Benefit Terms

As of the June 30, 2019, actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	Number
Inactive members or their beneficiaries currently receiving benefits	4
Inactive members:	
Vested	4
Non-vested	4
Active elsewhere in VRS	2
Total inactive members	10
Active members	6
Total	20

Contributions
The contribution requirement for active employees is governed by §51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement. The Authority's contractually required employer contribution rate for the year ended June 30, 2021, was 2.94% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were $16,147 and $5,576 for the years ended June 30, 2021, and 2020, respectively.

Net Pension Asset
The VRS Retirement Plan net pension liabilities or assets are calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. The Authority's net pension asset was measured as of June 30, 2020. The total pension liability used to calculate the Authority's net pension asset was determined by an actuarial valuation performed as of June 30, 2019, rolled forward to the measurement date of June 30, 2020.

Actuarial Assumptions – General Employees
The total pension liability for General Employees in the Political Subdivision's Retirement Plan was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Inflation	2.5% per year
Salary increases, including Inflation	3.5% – 5.35% per annum
Investment Return Rate	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.

Mortality rates:
- All Others (Non 10 Largest) – Non-Hazardous Duty: 15% of deaths are assumed to be service related
  - Pre-Retirement:
    - RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020; males 95% of rates; females 105% of rates.
  - Post-Retirement:

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

Post-Disablement:

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled):

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

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

* The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations, provide a median return of 6.81%.

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2020, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017, actuarial valuations, whichever was greater. From July 1, 2020, on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the Long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Asset

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at June 30, 2019	$ 2,020,433	$ 2,277,635	$ (257,202)
Changes for the year:			
Service cost	57,654	-	57,654
Interest	132,454	-	132,454
Changes of assumptions	-	-	-
Difference between expected and actual experience	30,260	-	30,260
Contributions – employer	-	3,150	(3,150)
Contributions – employee	-	33,921	(33,921)
Net investment income	-	43,404	(43,404)
Benefit payments, including refunds of employee contributions	(116,313)	(116,313)	-
Administrative expense	-	(1,507)	1,507
Other changes	-	(50)	50
Net changes	104,055	(37,395)	141,450
Balances at June 30, 2020	$ 2,124,488	$ 2,240,240	$ (115,752)

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

The following presents the Authority's net pension asset calculated using the stated discount rate of 6.75%, as well as what the Authority's net position asset would be if it were calculated using a stated 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 Liability (Asset)	$ 134,816	$ (115,752)	$ (325,054)

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

For the year ending June 30, 2021, the Authority recognized pension expense of $76,871. At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Employer contributions made subsequent to the measurement date	$ 16,147	$ -
Differences between expected and actual experience	25,957	-
Changes of assumptions	11,750	-
Net difference between projected and actual earnings on plan investments	66,471	-
	$ 120,325	$ -

Amounts reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as an increase to the net pension asset in the fiscal year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions as of June 30, 2021, will be recognized in pension expense in future reporting periods as follows:

Year ended June 30:	
2022	$ 32,688
2023	27,011
2024	22,958
2025	21,521
Total	$ 104,178

Pension Plan Data

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

10. OTHER POST-EMPLOYMENT BENEFITS – GROUP LIFE INSURANCE PROGRAM

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 Group Life Insurance Program (GLI) 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.

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 Group Life Insurance Program OPEB.

The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits is set out in the table below:

<table>
<tr><th>GROUP LIFE INSURANCE PROGRAM PLAN PROVISIONS</th></tr>
<tr><td>Eligible Employees
The Group Life Insurance 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.</td></tr>
<tr><td>Benefit Amounts
The benefits payable under the Group Life Insurance 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:
o Accidental dismemberment benefit
o Safety belt benefit
o Repatriation benefit
o Felonious assault benefit
o Accelerated death benefit option</td></tr>
<tr><td>Reduction in Benefit Amounts
The benefit amounts provided to members covered under the Group Life Insurance 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.</td></tr>
<tr><td>Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)
For covered members with at least 30 years of service credit, there is a minimum benefit payable under the Group Life Insurance 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 $8,616 as of June 30, 2021.</td></tr>
</table>

<u>*Contributions*</u>
The contribution requirements for the Group Life Insurance 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 Group Life Insurance Program was 1.34% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.80% (1.34% X 60%) and the employer component was 0.54% (1.34% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2021, was 0.54% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Group Life Insurance Program from the entity were $4,241 and $3,789 for the years ended June 30, 2021, and June 30, 2020, respectively.

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

At June 30, 2021, the Authority reported a liability of $56,907 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2020, and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2019, and rolled forward to the measurement date of June 30, 2020. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2020, relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2020, the participating employer's proportion was 0.00341% as compared to 0.00328% at June 30, 2019.

For the year ended June 30, 2021, the participating employer recognized GLI OPEB expense of $3,872. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Employer contributions made subsequent to the measurement date	$ 4,241	$ -
Differences between expected and actual experience	3,650	510
Changes of assumptions	2,846	1,188
Changes in proportion	6,555	-
Net difference between projected and actual earnings on GLI OPEB program investments	1,709	-
	$ 19,001	$ 1,698

$4,241 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year ended June 30:		
2022	$	2,559
2023		3,041
2024		3,237
2025		3,053
2026		1,065
Thereafter		107
Total	$	13,062

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Inflation	2.5 percent
Salary increases, including inflation –	
General state employees	3.5 percent – 5.35 percent
Teachers	3.5 percent – 5.95 percent
SPORS employees	3.5 percent – 4.75 percent
VaLORS employees	3.5 percent – 4.75 percent
JRS employees	4.5 percent
Locality – General employees	3.5 percent – 5.35 percent
Locality – Hazardous Duty employees	3.5 percent – 4.75 percent
Investment rate of return	6.75%, net of investment expenses, including inflation*

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

Mortality rates – General State Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – Teachers:

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

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

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

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

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

Mortality rates – SPORS Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience.
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 85%
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – VaLORS Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – JRS Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – Largest 10 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.

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%
Discount Rate	Decrease rate from 7.00% to 6.75%

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.

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – Largest Ten Locality Employers – Hazardous Duty Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages

Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Increased disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – Non-Largest Ten Locality Employers – Hazardous Duty Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 60% to 45%
Discount Rate	Decrease rate from 7.00% to 6.75%

Net GLI OPEB Liability
The net OPEB liability (NOL) for the Group Life Insurance Program represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2020, NOL amounts for the Group Life Insurance Program are as follows (amounts expressed in thousands):

	Group Life Insurance OPEB Program
Total GLI OPEB Liability	$ 3,523,937
Plan Fiduciary Net Position	1,855,102

GLI OPEB Liability (Asset)	$ 1,668,835
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	52.64%

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

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%	4.65%	1.58%
Fixed Income	15.00%	0.46%	0.07%
Credit Strategies	14.00%	5.38%	0.75%
Real Assets	14.00%	5.01%	0.70%
Private Equity	14.00%	8.34%	1.17%
MAPS - Multi-Asset Public Strategies	6.00%	3.04%	0.18%
PIP - Private Investment Partnership	3.00%	6.49%	0.19%
Total	100.00%		4.64%
	Inflation		2.50%
	*Expected arithmetic nominal return		7.14%

* The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations, provide a median return of 6.81%.

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, 2020, 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. From July 1, 2020, on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB's fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

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

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

	1% Decrease	Current Discount Rate	1% Increase
	5.75%	6.75%	7.75%
Employer's proportionate share of the Net GLI OPEB Liability	$74,809	$56,907	$42,369

Group Life Insurance Program Fiduciary Net Position

Detailed information about the Group Life Insurance Program's Fiduciary Net Position is available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2020-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

11. OTHER POST-EMPLOYMENT BENEFITS – HEALTH INSURANCE CREDIT PROGRAM

Plan Description

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by VRS Political Subdivision Health Insurance Credit Program upon employment. This plan is administered by the Virginia Retirement System (the System) along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia. Members earn one month of service credit toward the benefit for each month they are employed and for which they and their employer pay 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.

The specific information about the Political Subdivision Health Insurance Credit Program OPEB, including eligibility, coverage and benefits is set out in the table below:

POLITICAL SUBDIVISION HEALTH INSURANCE CREDIT PROGRAM (HIC) PLAN PROVISIONS
Eligible Employees The Political Subdivision Retiree Health Insurance Credit 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 are enrolled automatically upon employment. They include: • Full-time permanent salaried employees of the participating political subdivision who are covered under the VRS pension plan.
Benefit Amounts The political subdivision's Retiree Health Insurance Credit 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 Health Insurance Credit benefit cannot exceed the individual premium amount. • No Health Insurance Credit for premiums paid and qualified under the Line of Duty Act (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.

Employees Covered by Benefit Terms

As of the June 30, 2019, actuarial valuation, the following employees were covered by the benefit terms of the HIC OPEB plan:

	Number
Inactive members or their beneficiaries currently receiving benefits	2
Inactive members:	
Vested	0
Non-vested	0
Active elsewhere in VRS	0
Total inactive members	0
Active members	6
Total	8

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, 2021, was 0.14% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. The actuarially determined rate 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 political subdivision to the Political Subdivision Health Insurance Credit Program were $1,100 and $1,020 for the years ended June 30, 2021, and June 30, 2020, respectively.

Net HIC OPEB Liability

The Authority's net Health Insurance Credit OPEB liability was measured as of June 30, 2020. The total Health Insurance Credit OPEB liability was determined by an actuarial valuation performed as of June 30, 2019, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Actuarial Assumptions

The total HIC OPEB liability was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Inflation	2.5% per year
Salary increases, including Inflation	3.5% – 5.35% per annum
Investment Return Rate	6.75%, net of 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 OPEB liabilities.

Mortality rates:

Non - Largest 10 Locality Employers – General Employees

Pre-Retirement:

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

Post-Retirement:

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

Post-Disablement:

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

The actuarial assumptions used in the June 30, 2019, valuation were based on the results of an actuarial experience study for the period from July 1, 2012, through June 30, 2016, except the change in the discount rate, which was based on 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 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 rates at older ages and changed final retirement from 70 to 75
- Withdrawal Rates:
  - Adjusted termination rates to better fit experience at each year 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%

Long-Term Expected Rate of Return

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

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

* The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

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, 2020, 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, which was 100% of the actuarially determined contribution rate. From July 1, 2020, on, employers are assumed to continue 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

	Total HIC OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net HIC OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2019	$ 9,826	$ 1,275	$ 8,551
Changes for the year:			
Service cost	206	-	206
Interest	645	-	645
Changes of assumptions	-	-	-
Difference between expected and actual experience	(666)	-	(666)
Contributions – employer	-	1,034	(1,034)
Net investment income	-	36	(36)
Benefit payments, including refunds of employee contributions	(539)	(539)	-
Administrative expense	-	(3)	3
Other changes	-	-	-
Net changes	(354)	528	(882)
Balances at June 30, 2020	$ 9,472	$ 1,803	$ 7,669

Sensitivity of the Net HIC OPEB Liability to Changes in the Discount Rate
The following presents the Authority's net HIC OPEB liability calculated using the stated discount rate of 6.75%, as well as what the net HIC OPEB liability would be if it were calculated using a stated discount rate that is one-percentage-point lower (5.75%) or one-percentage-point higher (7.75%) than the current rate:

	1% Decrease	Current Discount Rate	1% Increase
	5.75%	6.75%	7.75%
Authority's Net HIC OPEB Liability	$ 8,514	$ 7,669	$ 6,939

HIC OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to HIC OPEB
For the year ending June 30, 2021, the Authority recognized HIC OPEB expense of $768. At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to HIC OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Employer contributions made subsequent to the measurement date	$ 1,100	$ -
Differences between expected and actual experience	373	559
Changes of assumptions	141	37
Net difference between projected and actual earnings on plan investments	49	-
	$ 1,663	$ 596

Amounts reported as deferred outflows of resources related to HIC OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net HIC OPEB liability in the fiscal year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB as of June 30, 2021, will be recognized in pension expense in future reporting periods as follows:

Year ended June 30:		
2022	$	18
2023		41
2024		30
2025		-
2026		(98)
Thereafter		(24)
Total	$	(33)

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

12. OTHER EMPLOYEE BENEFITS – VIRGINIA LOCAL DISABILITY PROGRAM

Plan Description

All full-time, salaried general employees; including local law enforcement officers, firefighters, or emergency medical technicians of political subdivisions who do not provide enhanced hazardous duty benefits; who are in the VRS Hybrid Retirement Plan benefit structure and whose employer has not elected to opt out of the VRS-sponsored program are automatically covered by the VRS Political Subdivision Employee Virginia Local Disability Program. This plan is administered by the Virginia Retirement System (the System), along with pension and other OPEB plans, for eligible public employer groups in the Commonwealth of Virginia. Political subdivisions are required by Title 51.1 of the *Code of Virginia*, as amended to provide short-term and long-term disability benefits for their hybrid plan employees either through a local plan or through the Virginia Local Disability Program (VLDP).

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

POLITICAL SUBDIVISION EMPLOYEE VIRGINIA LOCAL DISABILITY PROGRAM (VLDP) PLAN PROVISIONS
Eligible Employees The Political Subdivision Employee Virginia Local Disability Program was implemented January 1, 2014, to provide short-term and long-term disability benefits for non-work-related and work-related disabilities for employees with hybrid plan retirement benefits. Eligible employees are enrolled automatically upon employment, unless their employer has elected to provide comparable coverage. They include:

• Full-time general employees; including local law enforcement officers, firefighters, or emergency medical technicians who do not have enhanced hazardous duty benefits; of public political subdivisions covered under VRS.
Benefit Amounts The Political Subdivision Employee Virginia Disability Local Program (VLDP) provides the following benefits for eligible employees: *Short-Term Disability:* • The program provides a short-term disability benefit beginning after a seven-calendar-day waiting period from the first day of disability. Employees become eligible for non-work-related short-term disability coverage after one year of continuous participation in VLDP with their current employer. • During the first five years of continuous participation in VLDP with their current employer, employees are eligible for 60% of their pre-disability income if they go out on non-work-related or work-related disability. • Once the eligibility period is satisfied, employees are eligible for higher income replacement levels. *Long-Term Disability:* • The VLDP program provides a long-term disability benefit beginning after 125 workdays of short-term disability. Members are eligible if they are unable to work at all or are working fewer than 20 hours per week • Members approved for long-term disability will receive 60% of their pre-disability income. If approved for work-related long-term disability, the VLDP benefit will be offset by the workers' compensation benefit. Members will not receive a VLDP benefit if their workers' compensation benefit is greater than the VLDP benefit.
Virginia Local Disability Program Notes: • Members approved for short-term or long-term disability at age 60 or older will be eligible for a benefit, provided they remain medically eligible. • VLDP Long-Term Care Plan is a self-funded program that assists with the cost of covered long-term care services.

Contributions

The contribution requirement for active hybrid plan employees is governed by §51.1-1178(C) of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to political subdivisions by the Virginia General Assembly. Each political subdivision's contractually required employer contribution rate for the year ended June 30, 2021, was 0.83% of covered employee compensation for employees in the VRS Political Subdivision Employee Virginia Local Disability Program. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. 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 VRS Political Subdivision Employee Virginia Local Disability Program were $4,623 and $2,096 for the years ended June 30, 2021, and June 30, 2020, respectively.

Political Subdivision Employee Virginia Local Disability Program OPEB Liabilities, Political Subdivision Employee Virginia Local Disability Program OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Political Subdivision Employee Virginia Local Disability Program OPEB

At June 30, 2021, the Authority reported a liability of $706 for its proportionate share of the VRS Political Subdivision Employee Virginia Local Disability Program Net OPEB Liability. The Net VRS Political Subdivision Employee Virginia Local Disability Program OPEB Liability was measured as of June 30, 2020, and the total VRS Political Subdivision Employee Virginia Local

Disability Program OPEB liability used to calculate the Net VRS Political Subdivision Employee Virginia Local Disability Program OPEB Liability was determined by an actuarial valuation as of June 30, 2019, and rolled forward to the measurement date of June 30, 2020. The Authority's proportion of the Net VRS Political Subdivision Employee Virginia Local Disability Program OPEB Liability was based on the Authority's actuarially determined employer contributions to the VRS Political Subdivision Employee Virginia Local Disability Program OPEB plan for the year ended June 30, 2020, relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2020, the Authority's proportion of the VRS Political Subdivision Employee Virginia Local Disability Program was 0.07074% as compared to 0.06796% at June 30, 2019.

For the year ended June 30, 2021, the Authority recognized VRS Political Subdivision Employee Virginia Local Disability Program OPEB expense of $2,091. Since there was a change in proportionate share between measurement dates, a portion of the VRS Political Subdivision Employee Virginia Local Disability Program Net OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2021, the Authority reported deferred outflows of resources and deferred inflows of resources related to the VRS Political Subdivision Employee Virginia Local Disability Program OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Employer contributions made subsequent to the measurement date	$ 4,623	$ -
Differences between expected and actual experience	572	829
Changes of assumptions	33	47
Changes in proportion	240	-
Net difference between projected and actual earnings on VLDP OPEB program investments	75	-
	$ 5,543	$ 876

$4,623 reported as deferred outflows of resources related to the Political Subdivision Employee VLDP OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Political Subdivision Employee VLDP OPEB Liability in the Fiscal Year ending June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Employee VLDP OPEB will be recognized in the Political Subdivision Employee VLDP OPEB expense in future reporting periods as follows:

Year ended June 30:		
2022	$	125
2023		123
2024		124
2025		115
2026		(93)
Thereafter		(350)
Total	$	44

Actuarial Assumptions

The total Political Subdivision Employee VLDP OPEB liability for the VRS Political Subdivision Employee Virginia Local Disability Program was based on an actuarial valuation as of June 30, 2019, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020.

Inflation	2.5 percent
Salary increases, including inflation – Political Subdivision Employees	3.5 percent – 5.95 percent
Investment rate of return	6.75%, net of investment expenses, including inflation*

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

Mortality rates – Non-Largest 10 Locality Employers – General and Non-Hazardous Duty Employees:

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

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

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

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

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service
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 Political Subdivision Employee VLDP OPEB Liability
The net OPEB liability (NOL) for the Political Subdivision Employee Virginia Local Disability Program represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2020, NOL amounts for the VRS Political Subdivision Employee Virginia Local Disability Program is as follows (amounts expressed in thousands):

	Political Subdivision Employee VLDP OPEB Program
Total Political Subdivision Employee VLDP OPEB Liability	$ 4,317
Plan Fiduciary Net Position	3,317
Political Subdivision Employee VLDP Net OPEB Liability	$ 1,000
Plan Fiduciary Net Position as a Percentage of the Total Political Subdivision Employee VLDP OPEB Liability	76.84%

The total Political Subdivision Employee VLDP 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 Political Subdivision Employee VLDP OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System's notes to the financial statements and required supplementary information.

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

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

* The above allocation provides a one-year return of 7.14%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation. More recent capital market assumptions compiled for the FY2020 actuarial valuations provide a median return of 6.81%.

Discount Rate

The discount rate used to measure the total Political Subdivision Employee VLDP OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made in accordance with the VRS funding policy at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2020, the rate contributed by the entity for the Political Subdivision Employee VLDP OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2020, on, all agencies are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the Political Subdivision Employee VLDP OPEB'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 Political Subdivision Employee VLDP OPEB liability.

Sensitivity of the Authority's Proportionate Share of the Political Subdivision Employee VLDP Net OPEB Liability to Changes in the Discount Rate

The following presents the employer's proportionate share of the VRS Political Subdivision Employee Virginia Local Disability Program net VLDP OPEB liability using the discount rate of 6.75%, as well as what the employer's proportionate share of the net VLDP 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	Current Discount Rate	1% Increase
	5.75%	6.75%	7.75%
Employer's proportionate share of the Net VLDP OPEB Liability	$947	$706	$496

Political Subdivision Employee VLDP OPEB Fiduciary Net Position

Detailed information about the VRS Political Subdivision Employee Virginia Local Disability Program's Fiduciary Net Position is available in the separately issued VRS 2020 Comprehensive Annual Financial Report (Annual Report). A copy of the 2020 VRS Annual Report may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2020-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

13. RISK MANAGEMENT AND EMPLOYEE HEALTH CARE PLANS

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; non-performance of duty; injuries to employees; and natural disasters.

The Authority participates in insurance plans maintained by the Commonwealth. The Department of Human Resource Management administers the state employee health care plan. The risk management insurance plans and worker's compensation plans are administered by a private insurance agency. Risk management insurance includes property and general liability plans and faithful performance of duty bond. The Authority pays premiums directly to the vendor for insurance coverage. Information relating to the Commonwealth's employee health care plan is available at the statewide level in the Commonwealth's Annual Comprehensive Financial Report.

14. RELATED PARTIES

In November, 2011, the Authority entered into a lease agreement with Virginia Commonwealth University for the use of the real property, building, and improvements located at 800 East Leigh Street, otherwise known as Bio+Tech Center. Bio+Tech Center is the property from which the Authority conducts the majority of its operations. The rent under the lease agreement was $30 and was paid in a lump sum at the beginning of the lease; therefore, there is no related rent expense represented within these financial statements. The initial lease term ends November 2041.

The Authority leases the space from VCU in Bio+Tech 8 and in turn, sub-leases the space to a single tenant. The tenant paid $117,829 to the Authority during the year ended June 30, 2021, and the Authority remitted the same amount to VCU. The Authority also leases space in the Bio+Tech Center to the VCU Health System. The VCU Health System paid rent of

$59,103 during the year ended June 30, 2021. VCU Health System, in turn, sub-leases a portion of the space to another tenant. The tenant paid rent to the Authority of $19,013 which the Authority paid back to VCU Health System. These sub-lease revenues and expenses are included in membership income and occupancy expense, respectively, on the statement of revenues, expenses, and changes in net position.

During FY2019, the Authority received $1.5 million from VCU Health to create investments, grants, and programs that focus on health innovation. The Authority formed two separate legal entities: Riverflow Growth Manager LLC, and Riverflow Growth Fund I, LP. $1 million of the $1.5 million received was invested in Riverflow Growth Fund I, LP for these purposes. A grant fund was set up with the remaining $500,000. An additional $1.5 million was received during the year ended June 30, 2020, $1 million of which was again invested in Riverflow Growth Fund I, LP., and $500,000 went to the grant fund. No such contributions were received during FY2021.

VCU Ventures has co-working space at the VA Bio+Tech Park and receives programming assistance for the program's start-ups. During fiscal year 2021, VCU Ventures paid the Authority $31,250 which is included in business support services on the statement of revenues, expenses, and changes in net position. Additionally, as of June 30, 2021, the Authority reported $19,200, $13,900, and $16,800 for prepaid rent, unearned contributions to be used to fund virtual memberships for 11 companies, and unearned grants to be applied toward the Small Business Innovation Research (SBIR) Program, respectively. These balances are all included in unearned revenues on the statement of net position as of June 30, 2021.

A Board member of the Corporation performs consulting services for the Riverflow LLC. Fees paid for these services during fiscal year 2021 were $134,404.

During FY2021, the Authority awarded $ 397,617 in EDIF grants to Lighthouse Labs, LLC, for which the Corporation is the sole member. The Authority's in-kind accounting and administrative services as part of the EDIF grant during fiscal year 2021 was $103,374 and is included in program revenues and administrative expenses on the Statement of Revenues, Expenses, and Changes in Net Position.

15. BLENDED COMPONENT UNIT

The Authority accounts for the Company and the Partnership as a blended component unit. The Company holds no assets and had no activity during the year ended June 30, 2021; therefore, it was aggregated with the Partnership as "Riverflow" in the condensed combining statement of net position as follows:

Condensed Statement of Net Position

Other assets	$ 1,727,101
Total assets	1,727,101
Restricted	1,727,101
Total net position	$ 1,727,101

Condensed Statement of Revenues, Expenses, and Changes in Net Position

Operating expenses	$ 208,926
Operating loss	(208,926)
Nonoperating revenues	
Transfer from Authority	35,394
Net gain on investments	2,725
Total nonoperating revenues	38,119
Change in net position	(170,807)
Beginning net position	1,897,908
Ending net position	$ 1,727,101

Condensed Statement of Cash Flows

Net cash used in operating activities	$ (208,926)
Net cash used in investing activities	(211,881)
Net decrease in cash and cash equivalents	(420,807)
Beginning cash and cash equivalents	1,897,908
Ending cash and cash equivalents	$ 1,477,101

16. COMMITMENTS

The Authority has awarded various EDIF grants that are to be paid out over future years. The amounts awarded but unpaid as of June 30, 2021, were cash commitments of $775,000.

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REQUIRED SUPPLEMENTARY INFORMATION

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Schedule of Changes in Net Pension Asset and Related Ratios

For the measurement date as of and for the year ended June 30,	2020	2019	2018	2017	2016	2015	2014
Total pension liability							
Service cost	$ 57,654	$ 56,235	$ 46,625	$ 44,533	$ 43,233	$ 36,492	$ 57,102
Interest	132,454	126,290	121,183	116,386	109,643	102,589	96,454
Changes of assumptions	-	54,476	-	828	-	-	-
Difference between expected and actual experience	30,260	36,398	7,778	(4,218)	28,675	44,487	-
Benefit payments	(116,313)	(114,204)	(91,067)	(86,948)	(83,470)	(82,139)	(49,685)
Net change in total pension liability	104,055	159,195	84,519	70,581	98,081	101,429	103,871
Total pension liability - beginning	2,020,433	1,861,238	1,776,719	1,706,138	1,608,057	1,506,628	1,402,757
Total pension liability - ending (a)	$ 2,124,488	$ 2,020,433	$ 1,861,238	$ 1,776,719	$ 1,706,138	$ 1,608,057	$ 1,506,628
Plan fiduciary net position							
Contributions - employer	$ 3,150	$ 1,689	$ 1,781	$ 2,978	$ 24,201	$ 23,518	$ 18,091
Contributions - employee	33,921	30,092	27,037	25,655	23,639	22,946	22,363
Net investment income	43,404	145,042	155,987	234,975	33,550	86,652	262,181
Benefit payments	(116,313)	(114,204)	(91,067)	(86,948)	(83,470)	(82,139)	(49,685)
Administrative expenses	(1,507)	(1,488)	(1,372)	(1,388)	(1,223)	(1,205)	(1,407)
Other changes	(50)	(91)	(247)	(330)	(14)	(19)	14
Net change in plan fiduciary net position	(37,395)	61,040	92,119	174,942	(3,317)	49,753	251,557
Plan fiduciary net position - beginning	2,277,635	2,216,595	2,124,476	1,949,534	1,952,851	1,903,098	1,651,541
Plan fiduciary net position - ending (b)	$ 2,240,240	$ 2,277,635	$ 2,216,595	$ 2,124,476	$ 1,949,534	$ 1,952,851	$ 1,903,098
Authority's net pension asset - ending (b) - (a)	$ 115,752	$ 257,202	$ 355,357	$ 347,757	$ 243,396	$ 344,794	$ 396,470
Plan fiduciary net position as a percentage of the total pension Liability	105.4%	112.7%	119.1%	119.6%	114.3%	121.4%	126.3%
Covered payroll*	$ 728,661	$ 643,844	$ 555,656	$ 523,187	$ 472,770	$ 458,917	$ 388,489
Net pension asset as a percentage of covered payroll	15.9%	39.9%	64.0%	66.5%	51.5%	75.1%	102.1%

*Covered payroll represents the total pensionable payroll for employees covered under the pension plan, in accordance with GASB Statement No. 82.

Note: Information in this schedule is presented for the year in which information is available. Information will be added each year until a full 10-year trend is presented.

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Schedule of Employer's Share of Net OPEB Liability – Group Life Insurance Program

For the measurement date and years ended June 30,	2020	2019	2018	2017
Employer's proportion of the net GLI OPEB liability	0.00341%	0.00328%	0.00293%	0.00284%
Employer's proportionate share of the net GLI OPEB liability	$ 56,907	$ 53,375	$ 44,000	$ 43,000
Employer's covered payroll	$ 728,661	$ 643,844	$ 555,656	$ 523,187
Employer's proportionate share of the net GLI OPEB liability as a percentage of its covered payroll	7.81%	8.29%	7.92%	8.22%
Plan fiduciary net position as a percentage of the total GLI OPEB liability	52.64%	52.00%	51.22%	48.86%

Note: Information in this schedule is presented for the years in which information is available. Information will be added each year until a full 10-year trend is presented.

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Schedule of Changes in Net HIC OPEB Liability and Related Ratios

For the measurement date as of and for the year ended June 30,	2020	2019	2018
Total HIC OPEB liability			
Service cost	$ 206	$ 232	$ 181
Interest	645	615	594
Changes of assumptions	-	209	-
Difference between expected and actual experience	(666)	352	293
Benefit payments	(539)	(735)	(790)
Net change in total HIC OPEB liability	(354)	673	278
Total HIC OPEB liability - beginning	9,826	9,153	8,875
Total HIC OPEB liability - ending (a)	$ 9,472	$ 9,826	$ 9,153
Plan fiduciary net position			
Contributions - employer	$ 1,034	$ 902	$ 780
Contributions - employee	-	-	-
Net investment income	36	75	130
Benefit payments	(539)	(735)	(790)
Administrative expenses	(3)	(2)	(2)
Other changes	-	(63)	(5)
Net change in plan fiduciary net position	528	177	113
Plan fiduciary net position - beginning	1,275	1,098	985
Plan fiduciary net position - ending (b)	$ 1,803	$ 1,275	$ 1,098
Authority's net HIC OPEB liability - ending (b) - (a)	$ 7,669	$ 8,551	$ 8,055
Plan fiduciary net position as a percentage of the total HIC OPEB liability	19.0%	13.0%	12.0%
Covered payroll	$ 728,661	$ 643,844	$ 555,656
Net HIC OPEB liability as a percentage of covered payroll	1.1%	1.3%	1.4%

Note: Information in this schedule is presented for the year in which information is available. Information will be added each year until a full 10-year trend is presented.

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Schedule of Employer's Share of Net OPEB Liability – Virginia Local Disability Program

For the measurement date and years ended June 30,	2020	2019	2018	2017
Employer's proportion of the net VLDP OPEB liability	0.07074%	0.06796%	0.03335%	0.00000%
Employer's proportionate share of the net VLDP OPEB liability	$ 706	$ 1,377	$ -	$ -
Employer's covered payroll	$ 291,167	$ 210,000	$ 79,696	$ -
Employer's proportionate share of the net VLDP OPEB liability as a percentage of its covered payroll	0.24%	0.66%	0.00%	n/a
Plan fiduciary net position as a percentage of the total VLDP OPEB liability	76.84%	49.19%	51.39%	38.40%

Note: Information in this schedule is presented for the years in which information is available. Information will be added each year until a full 10-year trend is presented.

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY

Schedule of Employer Contributions - Pension

For the year ended June 30,	Actuarially Determined Contribution (1)	Contributions in Relation to Actuarially Determined Contribution (2)	Contribution Deficiency (Excess) (1) - (2)	Employer's Covered Payroll (3)	Contributions as a % of Covered Payroll (2) / (3)
2021	$ 16,147	$ 16,147	$ -	$ 785,370	2.06%
2020	$ 5,576	$ 5,576	$ -	$ 728,661	0.77%
2019	$ 4,829	$ 4,829	$ -	$ 643,844	0.75%
2018	$ 3,027	$ 3,027	$ -	$ 555,656	0.54%
2017	$ 2,978	$ 2,978	$ -	$ 523,187	0.57%
2016	$ 24,347	$ 24,347	$ -	$ 472,770	5.15%
2015	$ 23,634	$ 23,634	$ -	$ 458,917	5.15%

Schedule of Employer Contributions - GLI OPEB

For the year ended June 30,	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (1) - (2)	Employer's Covered Payroll (3)	Contributions as a % of Covered Payroll (2) / (3)
2021	$ 4,241	$ 4,241	$ -	$ 785,370	0.54%
2020	$ 3,789	$ 3,789	$ -	$ 728,661	0.52%
2019	$ 3,348	$ 3,348	$ -	$ 643,844	0.52%
2018	$ 2,912	$ 2,912	$ -	$ 555,656	0.52%
2017	$ 2,742	$ 2,742	$ -	$ 523,187	0.52%

Schedule of Employer Contributions - HIC OPEB

For the year ended June 30,	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (1) - (2)	Employer's Covered Payroll (3)	Contributions as a % of Covered Payroll (2) / (3)
2021	$ 1,100	$ 1,100	$ -	$ 785,370	0.14%
2020	$ 1,020	$ 1,020	$ -	$ 728,661	0.14%
2019	$ 901	$ 901	$ -	$ 643,844	0.14%

Schedule of Employer Contributions - VLDP OPEB

For the year ended June 30,	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (1) - (2)	Employer's Covered Payroll (3)	Contributions as a % of Covered Payroll (2) / (3)
2021	$ 4,623	$ 4,623	$ -	$ 556,988	0.83%
2020	$ 2,096	$ 2,096	$ -	$ 291,167	0.72%
2019	$ 1,512	$ 1,512	$ -	$ 210,000	0.72%

Note: Information in this schedule is presented for the year in which information is available. Information will be added each year until a full 10-year trend is presented.

1. Changes of benefit terms - Pension and OPEB:

There have been no actuarially material changes to the Virginia Retirement System (System) benefit provisions since the prior actuarial valuation

2. Changes of assumptions - Pension and OPEB:

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

<u>Pension and HIC OPEB</u>

Non 10 Largest Locality Employers - 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 year (through 9 years of service - Pension only)
- 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%

<u>GLI OPEB</u>

General State 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 rates at older ages and changed final retirement from 70 to 75
- Withdrawal Rates: Adjusted rates to better fit experience at each year age and service through 9 years of service
- Disability Rates: Adjusted rates to better match experience
- Salary Scale: No change
- Line of Duty Disability: Increase rate from 14% to 25%
- Discount Rate: Decrease rate from 7.00% to 6.75%

2. Changes of assumptions - Pension and OPEB: (Continued)

<u>GLI OPEB (continued)</u>

Teachers:

- 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: Adjusted rates to better match experience
- Salary Scale: No change
- Discount Rate: Decrease rate from 7.00% to 6.75%

SPORS Employees:

- Mortality Rates (Pre-retirement, post-retirement healthy, and disabled): Update to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
- Retirement Rates: Increased age 50 rates and lowered rates at older ages
- Withdrawal Rates: Adjusted rates to better fit experience
- Disability Rates: Adjusted rates to better match experience
- Salary Scale: No change
- Line of Duty Disability: Increased rate from 60% to 85%
- Discount Rate: Decrease rate from 7.00% to 6.75%

VaLORS Employees:

- Mortality Rates (Pre-retirement, post-retirement healthy, and disabled): Update to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
- Retirement Rates: Increased age 50 rates and lowered rates at older ages
- Withdrawal Rates: Adjusted rates to better fit experience at each year age and service through 9 years of service
- Disability Rates: Adjusted rates to better match experience
- Salary Scale: No change
- Line of Duty Disability: Decreased rate from 50% to 35%
- Discount Rate: Decrease rate from 7.00% to 6.75%

JRS Employees:

- Mortality Rates (Pre-retirement, post-retirement healthy, and disabled): Update to a more current mortality table - RP-2014 projected to 2020
- Retirement Rates: Decreased rates at first retirement eligibility
- Withdrawal Rates: No change
- Disability Rates: Removed disability rates
- Salary Scale: No change
- Discount Rate: Decrease rate from 7.00% to 6.75%

2. Changes of assumptions - Pension and OPEB: (Continued)

GLI OPEB (continued)

Largest 10 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 rates at older ages and extended final retirement age from 70 to 75
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- Disability Rates: Lowered rates
- Salary Scale: No change
- Line of Duty Disability: Increase rate from 14% to 20%
- Discount Rate: Decrease rate from 7.00% to 6.75%

Non-Largest 10 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 rates at older ages and extended final retirement age from 70 to 75
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- 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%

Largest 10 Locality Employers - Hazardous Duty 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 rates at older ages
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- Disability Rates: Increased disability rates
- Salary Scale: No change
- Line of Duty Disability: Increase rate from 60% to 70%
- Discount Rate: Decrease rate from 7.00% to 6.75%

Non-Largest 10 Locality Employers - Hazardous Duty Employees:
- Mortality Rates (Pre-retirement, post-retirement healthy, and disabled): Update to a more current mortality table - RP-2014 projected to 2020
- Retirement Rates: Increased age 50 rates and lowered rates at older ages
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- Disability Rates: Adjusted rates to better match experience
- Salary Scale: No change
- Line of Duty Disability: Decreased rate from 60% to 45%
- Discount Rate: Decrease rate from 7.00% to 6.75%

2. Changes of assumptions - Pension and OPEB: (Continued)

<u>VLDP OPEB Only</u>

Largest 10 Locality Employers - General and Non-Hazardous Duty 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 rates at older ages and extended final retirement age from 70 to 75
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- Disability Rates: Lowered rates
- Salary Scale: No change
- Line of Duty Disability: Increase rate from 14% to 20%
- Discount Rate: Decrease rate from 7.00% to 6.75%

Non-Largest 10 Locality Employers - General and Non-Hazardous Duty 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 rates at older ages and extended final retirement age from 70 to 75
- Withdrawal Rates: Adjusted termination rates to better fit experience at each year age and service year
- 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%