



Audit and Compliance Committee Meeting

Via GoToWebinar

Tuesday, 9/29/2020

1:00 - 4:00 PM ET

- I. Welcome
- II. Public Comment
- III. Minutes of the June 4th Meeting
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- IV. Election of Vice Chairperson
- V. Matters for Discussion with the Auditor of Public Accounts
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- VI. Audit Reports
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- IX. Proposed FY 2021-2024 Long-Range and FY 2021 Annual Audit Plans
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  - B. RBA: Recommend Approval of FY 2021 Audit Plan
    - RBA - FY2021 Annual Audit Plan - Page 168*
- X. Quarterly Report on Fraud, Waste and Abuse Hotline Cases
  - Quarterly Report on Fraud, Waste and Abuse as of July 31, 2020 - Page 170*
- XI. Miscellaneous Updates
  - A. Management's Quarterly Travel Expenses and Per Diem Report
    - Travel Expense and Per Diem Memo - Page 174*
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  - B. Review of VRS APOs and Operating Measures
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  - D. Polling for 2021 Meeting Dates
    - Proposed Committee Meeting Schedule for Calendar Year 2021 - Page 182*
  - E. Next Scheduled Meeting Date: Thursday, December 10, 2020 at 10:00 a.m.
- XII. Review of Audit Director's Performance (Closed Session)
  - Closed Session Language - Page 184*
  - A. RBA - Internal Audit Director Bonus**
  - B. RBA - Internal Audit Director Salary**

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## **Minutes**

In accordance with Item 4-0.01 of Chapter 1283 of the 2020 Acts of Assembly of the *Code of Virginia* as it relates to conducting business during the COVID-19 pandemic, the Audit and Compliance Committee of the Board of Trustees convened electronically on June 4, 2020.

The following individuals participated electronically.

***Audit and Compliance Committee Members:***

William H. Leighty, Committee Chair  
Diana F. Cantor, Committee and Board Vice-Chair

***Other Members of the Board of Trustees:***

O’Kelly E. McWilliams, III, Board Chair  
William A. Garrett

***VRS Staff:***

Patricia Bishop, Jennifer Schreck, Farley Beaton, Judy Bolt, Jeanne Chenault, Michael Cooper, Joshua Fox, Krystal Groff, Matthew Priestas, Denise Rasmussen, Cynthia Wilkinson, Caitlin Pelletier, Kristy Scott, Curt Mattson, Rick Brooks, Jillian Sherman, Robert Irving, and Valerie Disanto

***Auditor of Public Accounts:*** Zach Borgerding, Justin Ferrell, and Brian Deveney

***Virginia Senate Finance and Appropriations Committee:*** James Rosatelli

Mr. Leighty called the meeting to order at approximately 2:00 p.m. and noted that given the current circumstances related to COVID-19, the Audit and Compliance Committee (Committee) was unable to meet in person. However, utilizing electronic means, the Committee could hold this meeting in accordance with Item 4-0.01 of Chapter 1283 of the 2020 Acts of the Assembly of the *Code of Virginia* as it relates to conducting business during a pandemic.

Mr. Leighty then completed a roll call for attendance purposes:

Ms. Cantor – present  
Chief Garrett – present  
Mr. McWilliams – present  
Mr. Leighty – present

***PUBLIC COMMENT***

Mr. Leighty noted that no individuals registered to provide public comment to the Committee.

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**MINUTES**

Upon motion of Ms. Cantor, seconded by Mr. McWilliams, the Committee approved the minutes of the Audit and Compliance Committee meeting held on December 12, 2019 upon the following roll call vote:

Ms. Cantor – Aye  
Chief Garrett – Aye  
Mr. McWilliams – Aye  
Mr. Leighty – Aye

**UPDATE ON THE  
2019 EMPLOYER  
ASSURANCES  
REVIEW**

Mr. Borgerding updated the Committee on the status of the Auditor of Public Accounts' (APA) separate examinations designed to provide participating employers and their auditors the assurances necessary to prepare their own annual financial statements in accordance with Governmental Accounting Standards Statements No. 68 and 75.

Mr. Borgerding noted this was the third year the Other Post-Employment Benefit (OPEB) plans were included in the project and efficiencies are being realized. He noted these examinations are progressing as planned and the APA should conclude their work and issue the related opinions for the pension and OPEB plans by the end of July.

**ENTRANCE  
CONFERENCE**

The Committee proceeded to the scheduled entrance with the APA. The primary purpose of the entrance meeting was to review the approach and scope of the APA's annual examination of VRS' Comprehensive Annual Financial Report (CAFR) for the fiscal year ending June 30, 2020. Mr. Borgerding noted the APA's primary responsibilities under Generally Accepted Auditing Standards are to provide reasonable assurance as to whether the financial statements are free of material misstatements. Mr. Borgerding also noted APA's responsibility to determine that VRS' financial information is accurately incorporated into the statewide CAFR.

Mr. Borgerding further addressed the APA's use of materiality, responsibility for identifying fraud, as well as reporting on non-compliance items that could have a material direct or indirect effect on financial statements.

Finally, Mr. Borgerding shared a report on internal controls and compliance will be provided and any significant findings over internal controls would be included in the Statewide Single Audit (SSA) Report. Mr. Borgerding provided further information about the SSA and its related report and addressed the Committee's questions.

**AUDIT REPORTS**

The Committee received two audit reports from staff.

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***Audit Report 428*** Ms. Scott presented audit report 428 – Investment Manager and Master Custodian Compensation. The review determined compensation paid to external investment managers and the master custodian is in accordance with contractual requirements, accurate, and properly recorded. There were no written recommendations resulting from the review.

***Audit Report 429*** Mr. Priestas presented audit report 429 – Conformance with VITA’s Security Program. The review determined VRS’ Security Policies and Standards are compliant with VITA’s IT Security Program. There was one written recommendation resulting from this review to ensure VRS’ continued conformance.

***ACCEPTANCE OF  
AUDIT REPORTS*** Upon motion of Ms. Cantor, seconded by Mr. McWilliams, the Committee accepted audit reports 428 and 429 as presented, upon the following roll call vote:

Ms. Cantor – Aye  
Chief Garrett – Aye  
Mr. McWilliams – Aye  
Mr. Leighty – Aye

***ANNUAL REPORT ON  
CODE OF ETHICS*** Mr. Cooper provided a brief overview of VRS’ Code of Ethics and the training provided to personnel. Mr. Cooper confirmed all VRS staff had completed the annual code of ethics training by December 31, 2019. The Committee discussed with management how its contractors were incorporated into VRS’ efforts to reinforce a culture of ethics within the organization.

Mr. Mattson discussed the Investment Department's Code of Ethics and Conduct program, including the Investment Department’s Trading Policy, which limits trades primarily to multi-investment funds and generally prohibits trading in single entity securities. Mr. Mattson then noted personal trading certifications have been received from all investment associates and were reviewed and found to be in compliance with the Department's policies.

***MODERNIZATION  
QUARTERLY REPORT  
- MANAGEMENT*** Mr. Beaton presented Management's report on the Modernization Program - Phase 4. Mr. Beaton updated the Committee on the decommissioning of RIMS and the Phase 4 progress. Mr. Beaton shared the project plan for Phase 4 is shifting due to the impacts of new legislation, noting the development of the remaining member portal functionality will be completed in October 2020 and the related testing and roll-out activities will continue through the winter, possibly longer. Lastly, budget and cost updates as of March 31, 2020 were provided.

**MODERNIZATION  
QUARTERLY REPORT  
– INTERNAL AUDIT**

Mr. Priestas presented Internal Audit's Review of Modernization - Phase 4 indicating agreement with management's representations regarding the overall schedule, budget and scope of Phase 4. Mr. Priestas acknowledged management's continued thoughtful and deliberate efforts to bring this phase to a close while ensuring the continued protection of member data. Mr. Priestas also highlighted an Internal Audit facilitated discussion between VRS staff and the only other retirement system currently identified who has implemented similar functionality, noting key collaboration opportunities realized from that meeting.

**AUDIT PLAN  
PROGRESS AS OF  
DECEMBER 31, 2019**

Ms. Schreck reported on the progress of the annual Audit Plan as of December 31, 2019, the mid-point of the fiscal year. She noted there were some necessary changes to the planned timing of certain engagements due to operational needs and the global pandemic. The Committee discussed the Internal Audit department's remaining planned projects and resources.

**LONG-RANGE AUDIT  
PLAN DEVELOPMENT  
UPDATE (FOR THE  
FOUR YEARS ENDING  
JUNE 30, 2024)**

Ms. Schreck provided a status update on the development of the long-range audit plan, noting it will be presented at the September Committee meeting.

**QUARTERLY  
REPORTS ON FRAUD,  
WASTE AND ABUSE  
HOTLINE CASES**

Ms. Schreck shared for the periods November 1, 2019 through January 31, 2020 and February 1, 2020 through April 30, 2020, there were no cases of potential Fraud, Waste and Abuse reported for investigation. Further, she noted all previously reported cases remained closed.

**MANAGEMENT'S  
QUARTERLY TRAVEL  
EXPENSE AND PER  
DIEM REPORTS**

Ms. Schreck noted management's quarterly travel expense and per diem reports were provided for the Committee's review.

**MISCELLANEOUS  
UPDATES**

Ms. Schreck informed the Committee Internal Audit has reviewed the amounts referred to as "Cost of Living Adjustments (COLA)" as calculated by VRS' actuary, Cavanaugh Macdonald Consulting, LLC, to be effective July 1, 2020. Ms. Schreck noted Internal Audit independently recalculated the "Cost of Living Adjustments" and found them to be valid and accurate. The results of this review were provided to the Benefits and Actuarial Committee and Board of Trustees in February 2020 to support their review and approval process for these adjustments.

Finally, Ms. Schreck indicated the next meeting of the Committee is scheduled for September 17, 2020 at 2:00 p.m.

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***MEETING  
ADJOURNMENT***

There being no further business, Ms. Cantor motioned to adjourn the meeting which was seconded by Mr. McWilliams. Mr. Leighty then adjourned the meeting at approximately 3:25 p.m. upon completion of the following roll call vote:

Ms. Cantor – Aye  
Chief Garrett – Aye  
Mr. McWilliams – Aye  
Mr. Leighty – Aye

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**Board Chair**

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**Secretary**

# Matters for Discussion with the Auditor of Public Accounts



# MATTERS FOR DISCUSSION WITH THE APA

## **GASB No. 68 RELATED REPORTS**

[VRS Management's Assertions Related to Census Data for the fiscal year ended June 30, 2018](#)

[State Employee Retirement Plan for the fiscal year ended June 30, 2019](#)

[Political Subdivision Retirement Plan for the fiscal year ended June 30, 2019](#)

[Teacher Retirement Plan for the fiscal year ended June 30, 2019](#)

## **GASB No. 75 RELATED REPORTS**

[VRS Management's Assertions Related to OPEB Census Data for the fiscal year ended June 30, 2018](#)

[Disability Insurance Program for the fiscal year ended June 30, 2019](#)

[Group Life Insurance Plan for the fiscal year ended June 30, 2019](#)

[Line of Duty Act Program for the fiscal year ended June 30, 2019](#)

[State Health Insurance Credit Plan for the fiscal year ended June 30, 2019](#)

[Teacher Health Insurance Credit Plan for the fiscal year ended June 30, 2019](#)

[Political Subdivision Health Insurance Credit Plans for the fiscal year ended June 30, 2019](#)

## **Exit on the VRS 2019 Employer Assurances Audit**

The APA will exit with the Committee on the results of their 2019 Employer Assurances Audit for GASB No. 68 and 75. A listing of and hyperlink to the 11 reports issued by the APA is provided for your convenience in the call out box to the left.

For reference purposes, a list of some types of questions posed to external auditors when exiting are provided below. However, exit meetings with the APA are typically informal, with questions posed as the Committee sees fit.

### **Typical Questions Posed To External Auditors When Exiting**

- Were there any significant adjustments to the accounting records?
- Were there any significant accounting or auditing problems encountered during the examination? Do any remain unresolved?
- Were there any significant changes in accounting policies or principles during the year?
- Were there any indications of financial weaknesses, which should be addressed by the Committee?
- Did you detect any material errors, fraud, illegal acts, or significant deficiencies or material weaknesses in the internal control system?
- Are there any pertinent comments concerning operations in general?
- Did you review information furnished to others (e.g., actuaries)?
- Did the quality and quantity of personnel involved in the preparation and control of financial information appear adequate? Did personnel seem to be fulfilling their responsibilities in a conscientious and professional manner?
- Was the level of cooperation received from management and internal audit during the examination appropriate?
- Did you have enough time to complete all phases of your audit?

## **Update on the 2020 VRS CAFR Audit**

The APA will provide an update on the status of their examination of VRS' 2020 Comprehensive Annual Financial Report, the final results of which are expected to be presented at the Committee's December meeting.



## 2019 VRS Employer Assurances Audit Results

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September 29, 2020

Zach Borgerding, Audit Director

Auditor of Public Accounts

# Pension and OPEB Plan Types

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## Single Employer

- Single plan that covers the employees of a single employer

## Agent Multiple Employer

- Single plan that covers the employees of multiple employers
- Plan assets are segregated for each participating employer and cannot legally be used to pay other employer's pension or OPEB obligation

## Cost Sharing Multiple Employer

- Single plan that covers the employees of multiple employers
- Plan assets are not legally segregated for each participating employer and can legally be used to pay other employer's pension or OPEB obligation

# Agent Multiple Employer Plans

- Pensions – Political Subdivisions



- Health Insurance Credit – Political Subdivisions



# Agent Multiple Employer Plan Audit Assurances

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Provide opinion on proper accumulation of census data by the plan

Provide opinion on fair presentation of changes in FNP by employer

Net Liability is the Residual Balance

Total Pension Liability

Less: Fiduciary Net Position

Net Pension Liability

Total OPEB Liability

Less: Fiduciary Net Position

Net OPEB Liability

# VRS Cost Sharing Multiple Employer Plans

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## PENSION

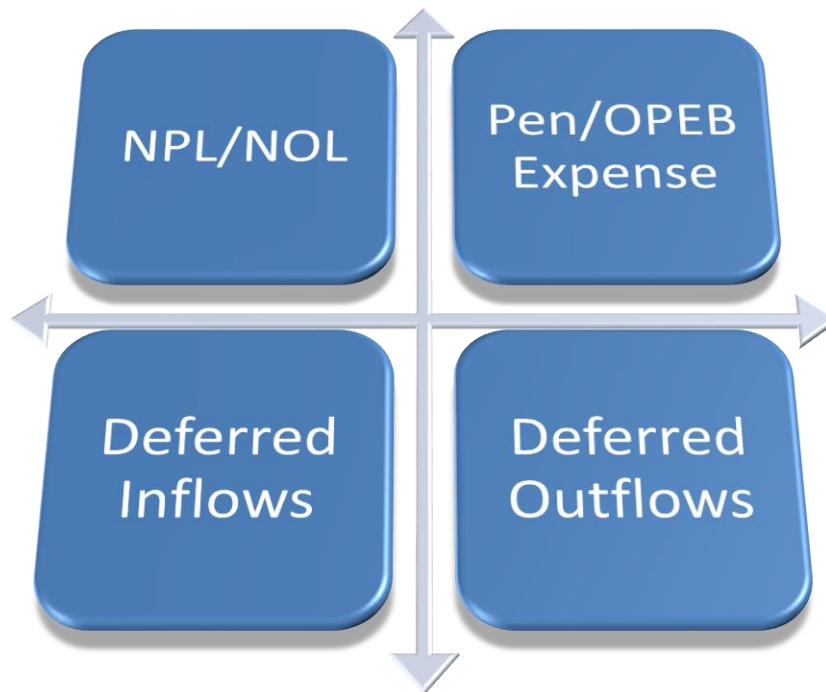
- State Plan
- Teacher Plan

## OPEB

- Health Insurance Credit – Teacher
- Health Insurance Credit – State
- Group Life Insurance
- Line of Duty Act
- Virginia State Disability Program
- Virginia Local Disability Program (No opinions)

# Cost Sharing Multiple Employer Audit Assurances

- Provide opinion on pension/OPEB amounts at plan level
- Provide opinion on employer allocation percentages



Employer Code	Employer	Employer Contributions	Employer Allocation Percentage
40100	ACCOMACK COUNTY SCHOOL BOARD	\$ 3,023,764	0.35461%
40101	ALBEMARLE COUNTY SCHOOLS	9,491,479	1.11311%
40102	ALLEGHANY COUNTY SCHOOL BOARD	1,435,188	0.16831%
40103	AMELIA COUNTY SCHOOL BOARD	903,338	0.10594%
40104	AMHERST COUNTY SCHOOL BOARD	2,704,879	0.31721%
40105	APPOMATTOX COUNTY SCHOOL BOARD	1,176,909	0.13802%
40106	ARLINGTON PUBLIC SCHOOLS	29,095,514	3.41217%
40107	AUGUSTA COUNTY SCHOOL BOARD	6,291,642	0.73785%
40108	BATH COUNTY SCHOOL BOARD	498,809	0.05850%
40109	BEDFORD COUNTY SCHOOL BOARD	5,682,514	0.66642%
40110	BLAND COUNTY SCHOOL BOARD	483,108	0.05666%
40111	BOTETOURT COUNTY SCHOOLS	3,106,162	0.36427%
40112	BRUNSWICK COUNTY PUBLIC SCHOOLS	1,137,210	0.13337%
40113	BUCHANAN COUNTY SCHOOL BOARD	1,757,633	0.20613%
40114	BUCKINGHAM COUNTY SCHOOL BOARD	1,213,826	0.14235%

## APA Issued Unmodified Opinions for the Following

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- Accurate and complete accumulation of census data to the actuary for pensions and OPEBs
- Fair presentation of the Schedules of Changes in Fiduciary Net Position at the employer level and related notes
- Fair presentation of pension/OPEB amounts and employer allocations and related notes



## Census Data Opinion: Emphasis of Matter

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- VRS does not have access to certain census data elements for retirees from an Optional Retirement Plan (ORP) who participate in HIC or GLI and have not claimed a benefit
- Actuary has applied assumptions in place of the data in accordance with Actuarial Standards of Practice
- Opinion was not modified in respect to this matter

## Other Audit Results:

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- No internal control weaknesses that we would consider significant deficiencies or material weaknesses
- No indications of non-compliance, fraudulent activity or illegal acts
- Proper treatment of accounting principles
- No material alternative accounting treatments
- No significant disagreements with management
- No material audit adjustments other than GLI typographical error

# Future Improvements to Group Life Census Data

## Eligibility

- Certain ineligible employees currently included will be excluded
- Reduces liability by \$19 million (1.2%)

## Rounding

- Presenting service in months rather than rounding by year will increase accuracy
- Reduces liability by \$6.5 million (.4%)

## Issuance of GASB 68 and 75 Resources

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- Employers received the following pension and OPEB resources:

Audited Schedules

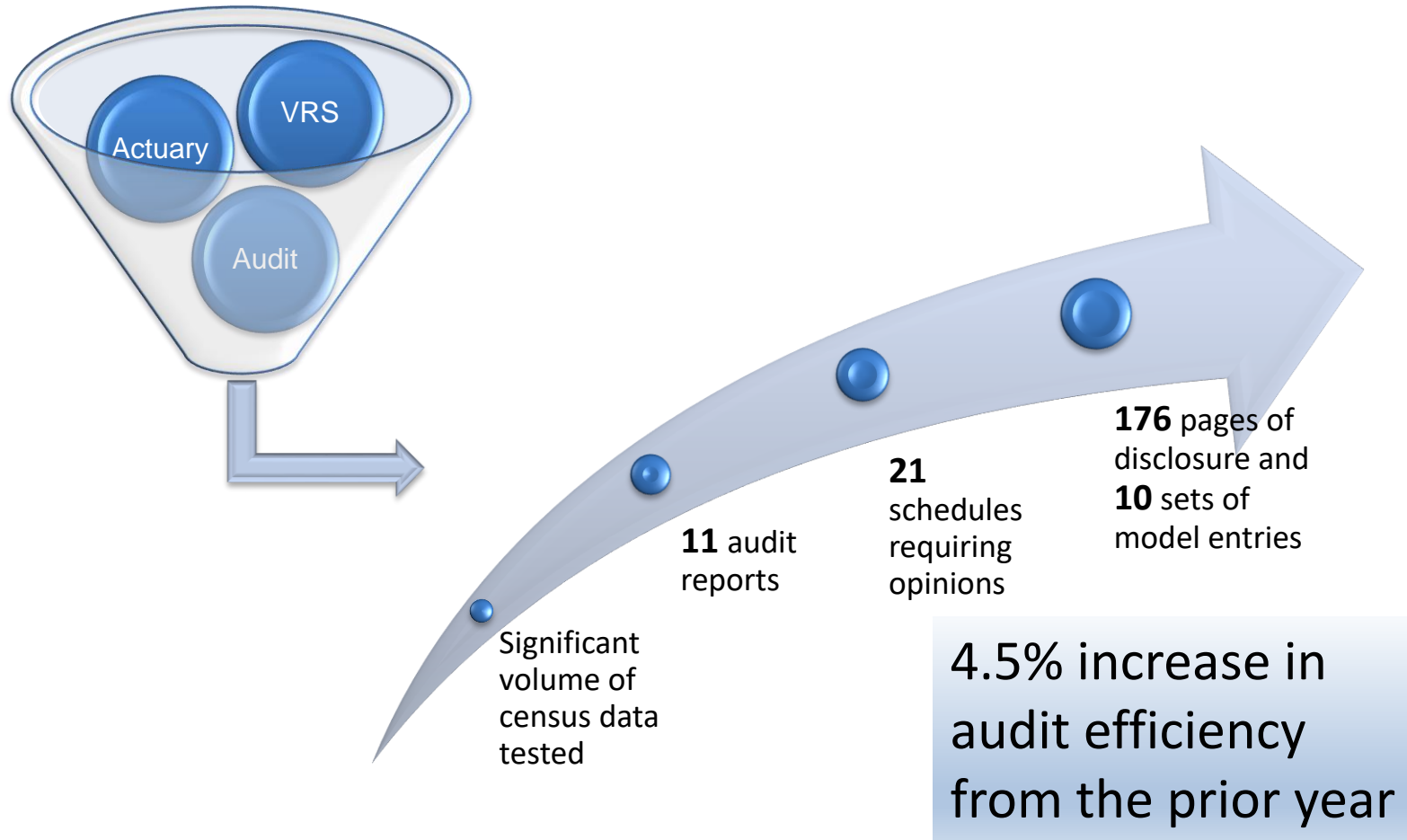
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graph TD; A[Audited Schedules] --> B[GASB 68/75 Reports]; B --> C[Template Journal Entries]; C --> D[Template Note Disclosures];
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GASB 68/75 Reports

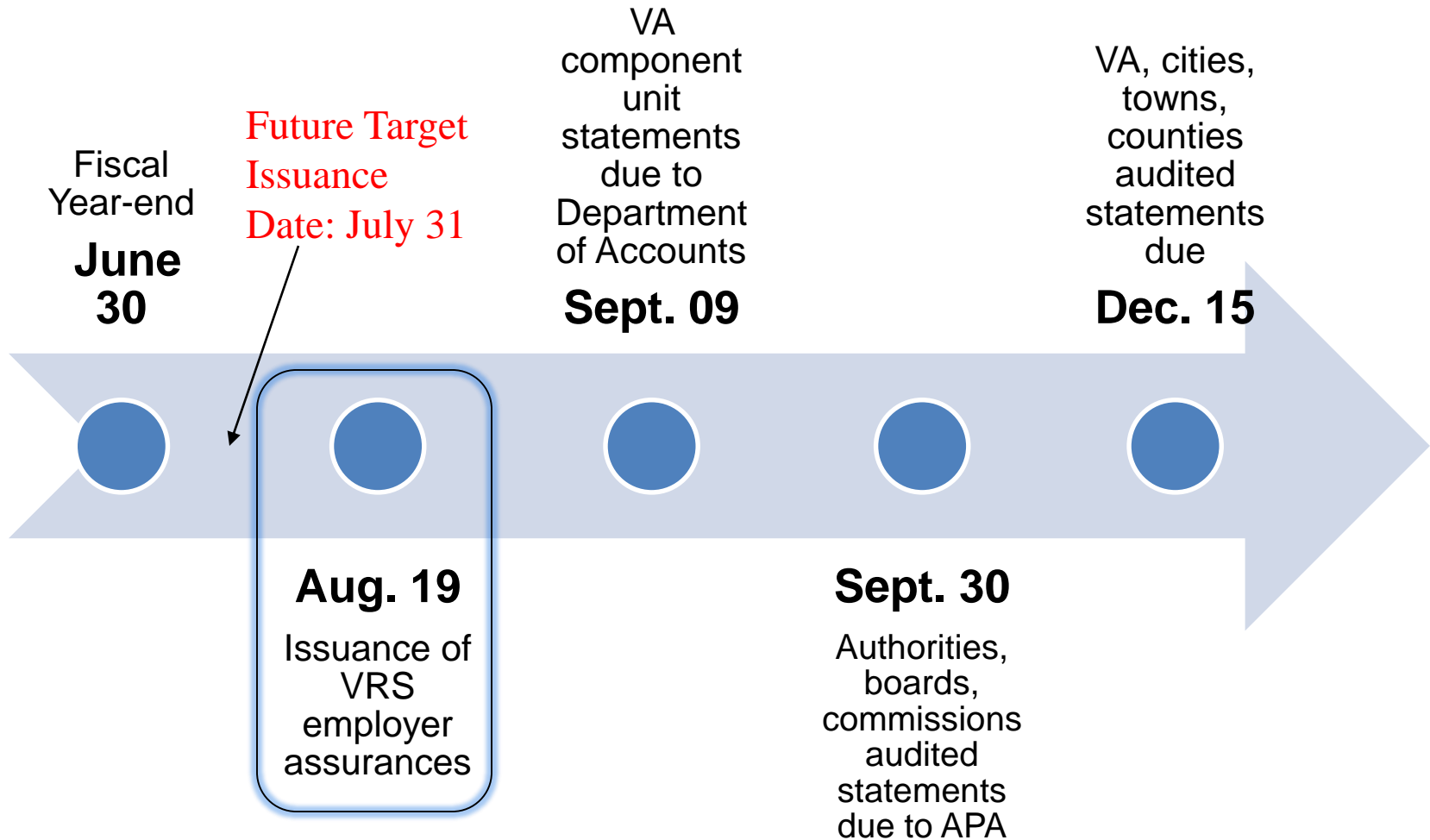
Template Journal Entries

Template Note Disclosures

# GASB 68 and 75 Project Scope



# Issuance Timely with Room to Improve







# VRS Website Offers User Friendly Access to Resources

## Audit Opinions & Disclosure Guidance

To assist employers with financial reporting, VRS is providing GASB schedules and corresponding opinions issued by the state auditor's office. In addition, VRS has developed sample journal entries and sample note disclosures for employers' reference.

**Note:** Reports, sample journal entries, note disclosures and other GASB documents are for the measurement period ended June 30<sup>th</sup> of the previous year.

[2020 Documents](#)
[2019 Documents](#)
[2018 Documents](#)
[2017 Documents](#)




<b>GASB 68 Reports With Audit Opinions</b>	-
<ul style="list-style-type: none"> <li> <a href="#">Political Subdivision Retirement Plans</a></li> <li> <a href="#">State Employee Retirement Plan</a></li> <li> <a href="#">Teacher Retirement Plan</a></li> <li> <a href="#">Report on Management's Assertions related the Census Data for Pension Plans for the Year Ended June 30, 2018</a></li> </ul>	
<b>Sample Journal Entries</b>	+
<b>Sample Note Disclosures</b>	+
<b>Analysis of 2019 Net Pension Liability</b>	+
<b>Covered Payroll &amp; Contributions</b>	+

## 2020 Audit Opinions & Disclosure Guidance

To assist employers with financial reporting, VRS is providing GASB schedules and corresponding opinions issued by the state auditor's office. In addition, VRS has developed sample journal entries and sample note disclosures for employers' reference for other post-employment benefits:

**Note:** Reports, sample journal entries, note disclosures and other documents are for the measurement period ended June 30, 2019, unless otherwise noted.

[h Insurance Credit](#)
[Group Life Insurance](#)
[Line of Duty Act](#)
[Virginia Local Disability Program](#)
[Virginia Sicknes Disability Progr](#)

<b>GASB 75 Reports With Audit Opinions</b>	-
<ul style="list-style-type: none"> <li> <a href="#">Political Subdivisions</a></li> <li> <a href="#">State</a></li> <li> <a href="#">Teacher</a></li> </ul>	
<b>Sample Journal Entries</b>	+
<b>Sample Note Disclosures</b>	+
<b>Analysis of Changes in Net OPEB Liability</b>	+
<b>Covered Payroll &amp; Contributions</b>	+

# Project Successes

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Effective collaboration to produce resources efficiently

High assurance gained for 100% data testing approaches

Employer questions and concerns remain low



## Employer Auditor Communications

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- VRS audit team annually updates *Specifications for Audits of Counties, Cities, and Towns* and *Specifications for Audits of Authorities, Boards and Commissions* for GASB 68 and 75 requirements
- Local auditors must test active employee data and submit results to APA
- APA Local Government Audit Manager and the VRS audit team communicates with local employer auditors to address inquiries

## VRS CAFR Audit Update

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- The audit is over a third complete and we are on track to finish in advance of the December A&C Committee meeting
- We do not currently have any management recommendations or other issues of concern to bring to the Committee's attention

## Intended Use Statement

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***This presentation is intended solely for the information and use of those charged with governance and management, and is not intended to be, and should not be, used by anyone other than these specified parties.***

# Audit Reports

# Investment Research

**As of November 1, 2019**

Highlighting VRS Core Values: *Integrity, Teamwork, Accountability and Agility in Action*

THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.



## TRANSMITTAL LETTER

June 1, 2020

Dear Members of the Audit and Compliance Committee,

We have completed audit number 430, "Investment Research" as of November 1, 2019. The main purpose of our audit was to review the Investment Research area to ensure proper control mechanisms have been established to ensure integrity of investment-related data, along with the area's compliance with VRS IT Standards. This report will focus on completed objectives related to the Investment Research Department prior to the state of emergency declared this spring, which put certain components of that work on hold. Any remaining objectives will be addressed separately, when appropriate.

We conducted our audit in accordance with the *International Standards for the Professional Practice of Internal Auditing*. These standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for the conclusions based upon our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report was distributed to the VRS Director, Chief Investment Officer and members of management for review and comment. Management expressed substantial agreement with our report and will issue a written response to the recommendation contained in this report.

We appreciate the cooperation and assistance of the Investment and Information Technology Departments throughout this audit.

Respectfully Submitted,

A handwritten signature in black ink that reads 'Jennifer P. Bell Schreck'.

**Jennifer P. Bell Schreck, CPA, CISA, PMP**  
Audit Director

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In the fall of 2019 we initiated a review of the Portfolio Intelligence Team (PIT). This area is composed of three divisions: Risk Management, Portfolio Strategy and Investment Research. As a direct result of the state of emergency declared this spring, certain components of that work have been placed on hold. To be respectful of the work that has been completed and ensure the timely communication of any observations made, we will report out on the completed items in separate reports.

This first report will focus on completed objectives related to the Investment Research Department. The next report will focus on Risk Management and Portfolio Strategy, which are two components of the Multi-Asset Public Strategies Program. Any remaining objectives will be addressed separately, when appropriate.

## EXECUTIVE SUMMARY

We have conducted an examination of VRS' "Investment Research" Department as of November 1, 2019. A part of PIT, Investment Research supports the Chief Investment Officer and Investment Department with strategy development and testing, macroeconomic consultation and quantitative methods. The Investment Decision Support (IDS) team within Investment Research assists in the collection, storage and reporting of data possessed by various investment programs to incorporate data into the investment process.

Specifically, our review focused on the Investment Research area to determine:

- Data entering into systems utilized by the IDS team is accurate, authorized and stored completely;
- Outputs are accurate, authorized and complete, and protected from disclosure;
- Records are maintained to track the process of data from input to storage and to the eventual output and reports;
- IDS has established protection mechanisms to avoid unauthorized changes to data or programs either through external or internal means; and,
- Access controls are functioning as designed and only authorized employees are accessing the systems.

Due to the COVID-19 Pandemic, we were unable to complete all planned objectives. Outstanding objectives are noted in the report and will be reviewed at a more practical time.

We included one formal opportunity for improvement surrounding the need to enhance Investment's communication of IT-related procurements to the IT Department which is discussed in more detail within the Recommendations section of the report.

## SNAPSHOT

**Investment Research** is a part of the **Portfolio Intelligence Team (PIT)**.

VRS **uses** the **data** Investment Research **acquires** and **maintains** to support the **management** of the **individual** investment **programs** and the **entire Fund**.

After commencing the examination, **PIT** was renamed to the **Portfolio Solutions Group (PSG)**.

## AUDIT ASSESSMENT

Overall, application controls in the Investment Research area, which were able to be reviewed, are well designed and functioning properly.

Application controls which were unable to be reviewed at this time, will be reviewed at another time in a future examination.

**Written Recommendations: 1**

## BACKGROUND

### INTRODUCTION

The Portfolio Intelligence Team, now known as the Portfolio Solutions Group (PSG), was established in July 2018 to explore leading edge concepts and solutions that are not yet mainstream in most pension portfolios. The PSG is also responsible for the management of the Multi-Asset Public Strategies Portfolio which as of November 1, 2019 was valued at \$2.2 Billion, representing 2.7% of the total fund.

A Managing Director leads the PSG team to provide fund-wide support in the areas of general research, data management and decision support, portfolio strategy and risk management. The PSG responsibilities and duties are organized into three separate and discrete functions – Risk Management, Portfolio Strategy and Investment Research.

#### Risk Management

The Risk Management team leads the research, development and maintenance of a state of the art quantitative risk management system which provides estimates for a full range of risk metrics for VRS' individual investment programs. The Risk Management team also serves as the primary portfolio manager of the Risk Based Investments Portfolio which is intended to provide diversification for the fund's main risks.

#### Portfolio Strategy

The Portfolio Strategy team develops, implements and manages a systematic ongoing process for identifying interesting investment strategy ideas that offer potentially value-added opportunities by tilting VRS' exposures away from policy benchmarks. The Portfolio Strategy team also manages a portfolio of cross-asset strategy initiatives using external management sources for implementation.

#### Investment Research

The Investment Research program was originally established in July 2005 as a research and risk team to build a comprehensive risk platform at the total fund level and conduct research on

### PSG LEADERSHIP STRUCTURE

Chief Investment Officer

Managing Director - PSG

Director of  
Risk Mgmt

Director of  
Portfolio  
Strategy

Program  
Director,  
Research &  
Investment  
Decision  
Support

Research  
Director -  
Investment  
Decision  
Support



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## REPORT FOCUS

While initiated as one review, this **report will focus** specifically on the **Investment Research** area. The other two components of PSG, **Risk Management** and **Portfolio Strategy**, were specifically **excluded** from this report and will be **discussed** under a **separate cover**.

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broader macroeconomic themes. Over time, Investment Research expanded to include data custodian duties and its responsibilities shifted more toward strategic and statistical model development.

The Investment Decision Support (IDS) team evolved from the Investment Research team to gain efficiencies by consolidating the data collection efforts from across the Investment Department. IDS focuses on supporting the more data intensive components of the investment process. To this end, in 2016, following a strategic review of Investment Department needs, IDS expanded to include developing reports tailored to the unique needs of each program.

## THE DEPARTMENT UNDER REVIEW

This report will focus on PSG's Investment Research component. As of November 1, 2019, the Investment Research team is comprised of two areas – Investment Research and Investment Decision Support teams. These teams are described further below.

### Investment Research

The Investment Research team supports the investment efforts of the Investment Department and the CIO through basic and applied research efforts. The team works closely with investment programs in strategy development and testing, macroeconomic consultation and quantitative methods. This effort includes monitoring, coordinating, facilitating and implementing current leading practices and methods to ensure optimal investment performance and risk management at both the program and plan level.

The Investment Research team exhibits their *agility* daily as they execute their responsibilities:

- modeling and forecasting trends and movements in the broader global economy;
- modeling the transmission of shocks to program level performance and total fund, decomposing the effects of these shocks on factors that drive returns and providing them to Investment Program Directors and the CIO; and,
- at times, supporting the portfolio by interfacing with external managers on their research efforts, methodology and best practices.

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## INVESTMENT INFORMATION TECHNOLOGY LIAISON

IDS serves as the Investment Department's **primary liaison** to the VRS **Information Technology team**. IDS personnel **work** with IT personnel to **coordinate** processes related to **data management**.

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The team also directly supports the CIO by conducting research on selected projects related to asset-liability modeling, forecasting and macroeconomic modeling. Much of this work is subsequently delivered at Board of Trustees and Investment Advisory Committee meetings for discussion and decision making.

### Investment Decision Support (IDS)

The IDS team reports directly to the Program Director of Investment Research and is responsible for the design and delivery of investment program, risk management, strategy and particular research analytic systems. IDS collaborates with teams across VRS to acquire and incorporate data into the investment analytics processes. IDS assists in the collection, storage and reporting of data owned by the various investment programs.

This area also provides *accountability* for certain investment data as well as the design, development, implementation and maintenance of the quantitative infrastructure for VRS Investment Programs. This infrastructure includes a data warehouse, various data retrieval tools, quantitative analysis tools, program level reporting tools and support applications that retrieve, consolidate and report information.

In addition to overseeing the data infrastructure for the Investment Department, this area exhibits *teamwork* and assists the Investment Research and other Investment Program Directors in the design of decision analytics that provide analysis tools, risk metrics and reports based on the information in VRS data warehouses. These decision analytics tools provide risk management, hedging, optimization routines and general portfolio management support in the areas of quantitative programming and mathematical and statistical modeling.

## SCOPE AND METHODOLOGY

This examination focused on the Investment Research area to determine:

- Data entering into systems utilized by the IDS team is accurate, authorized and stored completely;
- Outputs are accurate, authorized and complete, and protected from disclosure;
- Records are maintained to track the progress of data from input to storage and to the eventual output and reports;
- IDS has established protection mechanisms to avoid unauthorized changes to data or programs either through external or internal means; and,
- Access controls are functioning as designed and only authorized employees are accessing the systems.

Unfortunately, due to the COVID-19 Pandemic, we were unable to complete all planned objectives for the Investment Research area. These outstanding objectives are noted throughout the following section of the report and will be reviewed at a more practical time to provide assurance that associated controls are functioning properly within this area.

Additional objectives covering the other areas in PSG were planned within the original PSG review. The objectives related to Risk Management and Portfolio Strategy will be discussed in a separate engagement report.

### PROCESS EXCLUSIONS

While planning this review, we **confirmed** the management of **Investment-related IT hardware** and **software licensing** was **included** in the VRS **holistic agency process**.

Hardware and License management was reviewed during the most recent IT Client-Server General Controls **Report #425**, hence these processes were **excluded** from this **examination**.

## GENERAL ASSESSMENT AND UNDERSTANDING

We obtained a general understanding of all applications and systems which were associated with the PSG's Investment Research area. We then identified which systems business processes had material controls points, along with the systems which integrated or shared VRS data with external vendors. Once particular systems were identified, we reviewed associated application controls by reviewing applicable policies, procedures and other relevant control documentation. We also held meetings to discuss processes and controls with relevant personnel, as necessary. Finally, we validated application controls were functioning as stated and intended.

## DATA ENTERING SYSTEMS

We gained an understanding of all systems, either internal or external, that interfaced with VRS systems to assess whether appropriate controls are in place to migrate only authorized data into VRS databases accurately and completely. We then determined how data is entered or inputted into the systems and databases within the Investment Research area.

We had planned to substantiate VRS controlled inputted information to ensure data entering the system is accurate, complete and authorized, no matter the path of input, but as noted above have deferred this objective for a later review.

## SYSTEMS OUTPUT

We had planned to identify the population of outputs, such as reports and interface files, which are created from Investment Research systems. Once known, we planned to review these mechanisms to ensure outputs were accurate and complete and only authorized individuals could produce them. This objective has been deferred for a later review.

## LOGICAL ACCESS

We studied VRS account management processes around granting, changing and termination of access to two applications. Then we reviewed access to sensitive areas, like VRS personnel access to stored interface connections and files which migrate data to VRS databases, to substantiate that access to these files are in accordance with the employee's job duties.

We reviewed the account management policies and procedures around these activities for all types of personnel (internal, external and contractors) who receive access to view, modify or make changes to the applications or interface connections. We reviewed all access, including administrator duties, of all personnel types to determine if access was appropriately given based on the associated job description and was granted reasonably based on the principle of least privilege, as permitted in the VRS Security Standard, section AC-6.

We then evaluated user access for conflicting roles and proper segregation of duties to determine whether a single person could complete a full task, as defined in the VRS Security Standard AC-5.

## PROJECT MANAGEMENT AND APPLICATION CHANGES

We had planned to evaluate the project management processes used by the IDS team. We had initially requested any governance documents surrounding IDS project management processes and workflows, along with the population of projects that were performed during the first quarter of the fiscal year of 2020, however that information was not received at the time the examination was halted. Therefore, during a future examination, we will review project management procedures to ensure that universal project management principles are built into processes to ensure projects are controlled and only approved and tested projects are put into production. Then, we would take a sample of projects to ensure IDS personnel are following approved procedures.

Further, we will evaluate VRS' ability to make changes to outputs and business processes by assessing VRS processes for updating applicable system information. By doing this, we will determine whether VRS had a set process in place to ensure only authorized changes were adequately tested and ultimately implemented.

## HOSTED ENVIRONMENT SYSTEMS

We first requested and received the most current listing of Investment Research's related applications from the Investment Department and VRS' tracked and managed cloud service vendors and their associated applications from the IT Security Department.

### Third Party Risk Monitoring

We reviewed the Statement on Standards for Attestation Engagements 18 (SSAE 18) report management processes to determine if third party risks were being managed and user entity complementary controls were appropriately in place. We performed this by evaluating VRS' process for reviewing these reports regularly to ensure:

- the third party continues to secure its environment appropriately;
- VRS is identifying and ensuring user entity complementary controls are in place; and,
- results are communicated to appropriate VRS senior management and IT Security timely.

## SSAE 18

A **Statement on Standards for Attestation Engagements No. 18** report, otherwise known as a **SOC** (System and Organization Control) **report**, offers assurances on the services provided by an **external** service organization which gives **valuable** information to users to **assess** and **address** the **risks** associated with the **outsourced service**.

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## CLLOUD BASED SERVICES

Cloud based services or **Software as a Service (SaaS)** must meet specific **Commonwealth** security requirements. VRS has **accepted** these requirements within its **VRS Cloud Services Information Security Standard**. SaaS is the capability to use the provider's applications running on a **cloud infrastructure**. The **provider manages** or controls the underlying **cloud infrastructure** with the possible **exception** of limited user **specific** application configuration **settings**.

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In addition, we ensured that applicable hosted systems that required gap analyses to be performed between hosted systems requirements and vendor's SSAE 18 reports happened timely or within the 90 day requirement.

### Hosted System Assessment

We then evaluated applications and systems used within the Investment Research area to determine if VRS has requested a third party to act on its behalf along with its acceptance of Commonwealth data on the entity's cloud infrastructure. This type of agreement would be considered a hosted environment and the VRS Cloud Services Information Security Standard would be applicable.

Once systems with these basic characteristics were identified, for any systems which were not included on the IT Security Department's list, we requested applicable evidence to determine that identified applications should not be categorized as a hosted system and are exempt from following hosted environment requirements.

## CONCLUSIONS

### GENERAL ASSESSMENT AND UNDERSTANDING

Due to circumstances outside our control, we were unable to complete the planned review of certain controls within this environment. As they are significant when considering the comprehensive administration of the area, they are noted below and will be addressed in a future review.

Overall, our examination found the reviewed application controls surrounding processing and management of Investment Research systems at VRS reasonably minimize risks associated with business transactions. We found these controls to be operating effectively and as intended. In addition, VRS has put in place adequate controls to support management of the systems within the VRS business processing environment.

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## LOGICAL ACCESS CONTROL

**Controls** over **user access** to processing **application** and **data files** are essential to protect **reliability, confidentiality** and **availability** of data and computer resources.

These controls **reduce** the **risk** of information being **disclosed, misused** or **destroyed**, whether by accidental or intentional means.

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Nevertheless, we did observe a few items of note which are included below and offer one formal recommendation related to enhanced communications by the Investment Department. This issue is discussed further in the Recommendations section of the report.

### DATA ENTERING SYSTEMS

As previously noted, we are unable to conclude at this time in regard to these control mechanisms. We will revisit this area in a subsequent review.

### SYSTEMS OUTPUT

As previously noted, we are unable to conclude at this time in regard to these control mechanisms. We will revisit this area in a subsequent review.

### LOGICAL ACCESS

Overall, we found logical access was appropriate for individuals authorized to receive access or administrator access to the two applications reviewed based off job descriptions and the least privilege principle. The examination also found employees' access to interface files and their ability to modify or change interface parameters was protected appropriately.

Per the VRS Security Standard IA-5, user account passwords are required to be updated or changed at least every 90 days to enhance security and reduce the risk of a bad actor obtaining the credentials. Within one of the applications reviewed, VRS password management expiration was set for every 120 days. This password expiration timeframe is out of compliance with the current aforementioned security standard and was discussed with management. Once it was brought to management's attention, they took corrective action to ensure user passwords expired no later than every 90 days.

Per the Security Standard AC-5, VRS must implement segregation of duties within a system's account management processes to address the potential of abuse of authorized privileges and help to reduce the risk. Additionally, regular monitoring of system accounts must be employed at least annually, as described in the VRS Security Standard AC-2. As the review was stopped prior to completion of this test work, we cannot conclude at this time whether appropriate monitoring processes are in place.

## PROJECT MANAGEMENT AND APPLICATION CHANGES

As previously noted, we are unable to conclude at this time in regard to these control mechanisms. We will revisit this area in a subsequent review.

### SSAE 18 REPORT TYPES

#### SSAE 18, Type 1 Report

Reports on the **design of controls** put into **operations** as of a point in time. This type provides a **description** of the company, the **assessment** of design of internal control environment and **opinion** of the **suitability** and **design** of the controls in place at the point in time the report was issued.

#### SSAE 18, Type 2 Report

Reports on the design and testing of controls to report on the **operational effectiveness of controls** over a period of time (typically 12 months). This type of report provides a **description** of the service auditor's **tests** of controls and the **results** of the tests. It provides the client **documentable assurances** that **customer data** is being **handled correctly**. This report is considered a confidential document.

## HOSTED ENVIRONMENT SYSTEMS

### Third Party Risk Monitoring

The IT governance of VRS' third party administrators and hosted applications is decentralized, managed by the contract administrator within the specific department using the service or hosted system. This responsibility is memorialized in the VRS Technology Procurement Policy where it states *"The purchaser/contract administrator is responsible for ensuring compliance with any usage limitations and security requirements throughout the life of the item or contract."*

At the time of the review, all Investment Department systems data was owned by the VRS Chief Administrative Officer (Investments), who was also designated as the contract administrator. VRS' recent updates to its Continuity of Operations Plan has resulted in several individuals within the Investment Department being designated as the data owner/contract administrator for the Investment systems.

The Investment Department has established a process to monitor and regularly review each released SSAE 18 report for any applicable third party which administers VRS data to ensure that any unresolved weaknesses noted were identified and compensating controls were in place to ensure the **integrity** of VRS assets. Overall, we found the Investment Department was monitoring and reviewing SSAE 18 reports annually and timely documenting their review of each to protect VRS from potential third party risks.

Nevertheless, two observations were made regarding the SSAE 18 review process. The first relates to the Investment Department ensuring the entire population of internal control reports are reviewed. One section of a vendor's report was not included in the review process. Once brought to management's attention, the Investment Department immediately began this review to ensure VRS was adequately protected for this vendor.



The second pertains to the Investment Department's transmission of the SSAE 18 reports and communication of relevant information within them to the VRS IT Security Department. While the Investment Department is responsible for management of the contracted entity, other VRS departments have duties and responsibilities which must be performed relative to these relationships. Regular *teamwork* between these departments is vital to ensure each department's responsibilities are handled timely for the agency as a whole.

More specifically, once a system is identified as hosted, VRS must continually assess the system's control points throughout the life of the contract. Therefore, like the Investment Department, the IT Department must regularly obtain and review SSAE 18 reports for hosted systems. Further, the IT Department's review is time sensitive, as dictated in the mandatory VITA IT Operations Policy and Procedures: Third Party Use, "*VRS is responsible for performing a security audit within 90 days to determine control gaps between supplied audit and the Hosted Environment Information Standard.*"

We noted the VRS IT Security Department is performing these reviews in compliance with this requirement, however, presently, reviews are occurring annually rather than within 90 days due to the decentralized receipt of these reports. To allow for the IT Security Department to perform these reviews and meet this 90 day mandatory requirement, system data owners (contract administrators) must communicate receipt and share the SSAE 18 reports timely to ensure IT has the sufficient time to complete their review.

Internal Audit facilitated a meeting between the IT Security Department and the Investment Department to help the Investment's area understand the mandatory responsibilities of the IT area and nurture the *teamwork* to help ensure VRS stays in compliance with these associated systems. At this meeting a positive discussion ensued around the two teams' responsibilities, needs and how each unit could support the other. Further, since the aforementioned meeting, the Investment Department has indicated that additional meetings have been held with the IT Security Department to begin to define and refine their respective communication expectations and processes moving forward.

## **Hosted System Assessment**

Per our review, three Investment Research related IT systems, which met the basic characteristics of a cloud or hosted system and have not yet been reviewed by the IT Security Department to validate the fundamental components of these systems, were identified.

Effective on July 23, 2018, VRS instituted a Technology Procurement Policy which states that all acquisitions of IT-related goods and services require a security review and pre-approval from the VRS Chief Technology Security Officer (CTSO). This requirement is irrespective of the acquisition method and applies even in cases where goods or services are acquired at no cost or the acquisition is not otherwise governed by the provisions of the Virginia Public Procurement Act. By instituting this process, this allows the IT Department to ensure applicable security reviews are performed and all VRS IT requirements are met prior to the acquisition and introduction of the IT good or service into the VRS IT environment.

VRS Investments acquired additional services or products as recently as 2019 and 2020 from two of the three identified system vendors and therefore should have submitted those acquisitions through the IT procurement workflow for review. We communicated these systems to the VRS Information Security Officer, who immediately began reviews on the two aforementioned vendors' systems which had not been previously reviewed. The third system has a continuous contract in place and IT Security had plans to begin its review later in 2020.

Until reviewed in their entirety, VRS will not be able to determine if these systems should be managed in accordance with VRS Cloud Services Information Security Standard requirements. The delay in these systems' reviews may impact VRS' compliance with this mandatory standard as systems identified as hosted must have their control points reviewed at procurement and annually by VRS throughout the life of the contract. We discuss this further in the Recommendations section below.

## **END-OF-LIFE SYSTEMS OR APPLICATIONS**

Per the VRS Security Standard SI-2-COV, VRS prohibits the use of software products that the software publisher has designated as End-of-Life/End-of-Support. These products are more vulnerable to attack or compromise since the software publisher no longer provides security patches for this application.

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## REPORTABLE CONDITION

**Any recommendation** included in this section of the report is considered a “**Reportable Condition.**” The **resolution** of a “Reportable Condition” merits **monitoring** in the Audit Recommendation Follow-Up System (**ARFUS**).

## MATERIAL ISSUE

**Certain recommendations** may address a matter that poses such **significant risk** to VRS whereby **immediate measures** should be taken to mitigate the exposure. Other **long-term solutions** may also be appropriate for the permanent resolution of the matter. These recommendations are considered “**Material Issue.**”

All recommendations require a formal response from management.

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Per our review, one application reviewed had reached its end of life as of May 1, 2019. When brought to management’s attention, they noted VRS had purchased extended support on this product and further indicated VRS had plans to upgrade to a new supported version of the application in July 2020. Management later communicated that due to issues securing the appropriate control assurances with the initial proposed solution, the plan has been modified and implementation has been delayed until September of 2020. We encourage management’s execution of its stated plans to upgrade or move to a fully supported product as soon as possible and no later than the expiration of the extended support agreement to mitigate any potential risks resulting from the end of life state.

## RECOMMENDATIONS

We offer the following recommendation as a result of this examination, which is not considered a “Material Issue.”

Enhance the Investment Department’s Communication and Reporting of IT-Related Acquisition Activity to the IT Department

Effective June 1, 2017, Commonwealth agencies were required to become compliant with the Virginia Information Technologies Agency’s (VITA) new Security Standard referred to as SEC525 Hosted Environment Information Security Standard. This standard regulates the acquisition and ongoing use of cloud computing services.

During 2017, VRS responded appropriately to the new standard by accepting and incorporating it into the new VRS Cloud Services Information Security Standard which laid out VRS’ approach and related procedures. Within its initial version of the standard, VRS defined SaaS systems applicability “*to all new and renegotiated contracts or RFPs*” and further stated that “*Prior to procuring, renewing, signing or otherwise engaging with a third-party cloud service, including all RFPs, all contracts must receive written approval from Technology Services Security...*”.

Effective July 23, 2018, VRS established a more robust policy regarding IT acquisitions referred to as the VRS Technology Procurement Policy. This policy states, “*All acquisitions of IT-related goods and services require a security review and the pre-approval of the Chief Technology and Security*

*Investment Research* Pg. 15 of 18

*Officer or his/her designee....The purchaser/contract administrator is responsible for ensuring compliance with any usage limitations and security requirements throughout the life of the item or contract.”*

During our review, we noted two vendors from whom the VRS Investment Department had acquired six additional services or products after the VRS Technology Procurement Policy went into effect on July 23, 2018. The owner of the related Investment data (contract administrator) was unable to provide support of IT approval being received prior to finalizing the acquisition of these new services or products rendering the VRS Investment Department and these contracts out of compliance with the VRS IT Procurement Policy.

Further, per discussion with the IT Security Department, we found these vendors were not previously identified as hosted nor were the systems’ requirements reviewed to validate their appropriate classification. Given these vendors’ applications have characteristics of hosted solutions and could possibly be characterized as such, we requested the IT Security Department review these applications in the near term. If a review of these systems finds them to in fact be hosted, then this would also put VRS out of compliance with the VRS Cloud Services Information Security Standard.

*To allow the VRS IT Department to perform their responsibilities and complete any associated reviews prior to the completion of a contract, the Investment Department must communicate with IT timely whenever they are planning to enter into a new, renewed or renegotiated contract to obtain additional services or products with an existing vendor.*

To support such communications, in March 2019, in response to a recommendation in Audit Report #417, which found the Investment Department did not receive IT approval prior to renewing a contract for a vendor’s application, the VRS IT Department established a SharePoint site through which all IT acquisition requests could be initiated. This site walks contract administrators and associated departments through IT’s involvement in the acquisition process to ensure VRS stays aligned with all applicable standards concerning technology-related acquisitions including, but not limited to third party service partners, hardware or software purchases and upgrades, licenses and any use of VRS data. While IT has completed 27 such reviews for the Investment Department through this site, and Investments recently submitted another six for review, this process was not followed for these vendors. *To ensure all IT policies*

*and procedures are consistently applied throughout the Investment Department and IT-related risks resulting from third party relationships are appropriately understood and mitigated, the Investment Department should enhance their process to support compliance with the VRS IT Procurement Policy and related procedures in regard to all IT-related acquisitions.*

## **MANAGEMENT EXIT CONFERENCE**

This report was distributed to Ms. Bishop, Mr. Schmitz and other members of VRS' management and staff for review and comment. They expressed substantial agreement with this report and will issue a written response to the recommendation contained in this report.

## REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held  
September 29, 2020

### MEMBERS OF THE AUDIT AND COMPLIANCE COMMITTEE

Joseph W. Montgomery, Committee Chair  
W. Brett Hayes  
O'Kelly E. McWilliams, III, Board Chair

WITH COPIES TO:

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#### PRINCIPAL AUDITOR

Matthew Priestas, CIA, CRMA, CISA, PMP

#### AUDIT SUPERVISOR

Josh G. Fox, CIA, CFE, CIDA

To: Jennifer P. Bell Schreck, Internal Audit Director

From: Patricia S. Bishop, Director   
Ronald D. Schmitz, CIO 

Date: September 21, 2020

Subject: Management's Response to Internal Audit Report No. 430 – "Investment Research"

We reviewed the above captioned Internal Audit Report on "Investment Research." We appreciate the Internal Auditor's analysis and comments regarding the application controls developed around the Investment Research area, including compliance with applicable information technology security standards. We also appreciate the thorough background provided in the report as well as the professionalism and cooperation exhibited by internal audit staff.

The Audit Report identified one recommendation that requires follow-up. Below is the recommendation and management's response.

1. **Enhance the Investment Department's Communication and Reporting of IT-Related Acquisition Activity to the IT Department**

Effective June 1, 2017, Commonwealth agencies were required to become compliant with the Virginia Information Technologies Agency's (VITA) new Security Standard referred to as SEC525 Hosted Environment Information Security Standard. This standard regulates the acquisition and ongoing use of cloud computing services.

During 2017, VRS responded appropriately to the new standard by accepting and incorporating it into the new VRS Cloud Services Information Security Standard which laid out VRS' approach and related procedures. Within its initial version of the standard, VRS defined SaaS systems applicability "to all new and renegotiated contracts or RFPs" and further stated that "Prior to procuring, renewing, signing or otherwise engaging with a third-party cloud service, including all RFPs, all contracts must receive written approval from Technology Services Security...".

Effective July 23, 2018, VRS established a more robust policy regarding IT acquisitions referred to as the VRS Technology Procurement Policy. This policy states, "All acquisitions of IT-related goods and services require a security review and the pre-approval of the Chief Technology and Security Officer or his/her designee....The purchaser/contract administrator is responsible for ensuring compliance with any usage limitations and security requirements throughout the life of the item or contract."

During our review, we noted two vendors from whom the VRS Investment Department had acquired six additional services or products after the VRS Technology Procurement Policy went into effect on

July 23, 2018. The owner of the related Investment data (contract administrator) was unable to provide support of IT approval being received prior to finalizing the acquisition of these new services or products rendering the VRS Investment Department and these contracts out of compliance with the VRS IT Procurement Policy.

Further, per discussion with the IT Security Department, we found these vendors were not previously identified as hosted nor were the systems' requirements reviewed to validate their appropriate classification. Given these vendors' applications have characteristics of hosted solutions and could possibly be characterized as such, we requested the IT Security Department review these applications in the near term. If a review of these systems finds them to in fact be hosted, then this would also put VRS out of compliance with the VRS Cloud Services Information Security Standard.

*To allow the VRS IT Department to perform their responsibilities and complete any associated reviews prior to the completion of a contract, the Investment Department must communicate with IT timely whenever they are planning to enter into a new, renewed or renegotiated contract to obtain additional services or products with an existing vendor.*

To support such communications, in March 2019, in response to a recommendation in Audit Report #417, which found the Investment Department did not receive IT approval prior to renewing a contract for a vendor's application, the VRS IT Department established a SharePoint site through which all IT acquisition requests could be initiated. This site walks contract administrators and associated departments through IT's involvement in the acquisition process to ensure VRS stays aligned with all applicable standards concerning technology-related acquisitions including, but not limited to third party service partners, hardware or software purchases and upgrades, licenses and any use of VRS data. While IT has completed 27 such reviews for the Investment Department through this site, and Investments recently submitted another six for review, this process was not followed for these vendors. *To ensure all IT policies and procedures are consistently applied throughout the Investment Department and IT related risks resulting from third party relationships are appropriately understood and mitigated, the Investment Department should enhance their process to support compliance with the VRS IT Procurement Policy and related procedures in regard to all IT related acquisitions.*

**Management's Response:** *We agree that it is very important for the VRS IT policies and procedures to be consistently applied in order to help mitigate the risks to the VRS systems. Since the time of the exception noted in Audit Report #417, the Investment Department and the IT Department have continued working together to institute procedures to help ensure appropriate IT-related approvals are received prior to technology-related acquisitions.*

*Clearly, the Investment Department's intention is to adhere to the VITA and VRS IT policies as evidenced by the use of the SharePoint site established by VRS IT. However, the Investment Department's misinterpretation of the VRS IT Policy pertaining to additional acquisitions governed by longstanding, existing contracts, and which were not a renegotiation of the entire contract, led to the exceptions noted in the current audit report.*

*Given the Investment Department's confusion over the applicability and interpretation of the VRS IT Policy, the Investment Department and IT are working together to further clarify and refine the processes associated with the policy. Based on these discussions, and the additional understanding of the policy*



*requirements, the Investment Department will continue to enhance its process and control points. We anticipate having this process completed by June 30, 2021.*

# **Line of Duty Act (LODA)**

**July 1, 2019 through December 31, 2019**

**THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.**



Dear Members of the Audit and Compliance Committee,

We have completed audit number 431, "Line of Duty Act (LODA)." The main purpose of our audit was to determine whether LODA is administered in compliance with the *Code of Virginia* and to review its processes to ensure they support proper administration of the program.

We conducted our audit in accordance with the *International Standards for the Professional Practice of Internal Auditing*. These standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for the conclusions based upon our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report was distributed to the VRS Director and members of management for review and comment. As our review did not result in a written recommendation, management did not provide a written response but expressed substantial agreement with our report.

We appreciate the cooperation and assistance of the LODA team and others associated with the process throughout this audit.

Respectfully Submitted,

A handwritten signature in black ink that reads 'Jennifer P. Bell Schreck'.

**Jennifer P. Bell Schreck, CPA, CISA, PMP**  
Audit Director

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## EXECUTIVE SUMMARY

We conducted an examination of the Line of Duty Act (LODA) program administered by VRS for the period July 1, 2019 through December 31, 2019. Our review determined that:

- The LODA program is administered in compliance with the *Code of Virginia*;
- The manual processes supporting administration of the program are working as intended; and
- The various processes supporting non-participating employers are performed accurately, timely and are complete.

VRS took over administration of the LODA program on July 1, 2017 from the Department of Accounts (DOA). The Department of Human Resource Management (DHRM) handles administration of the health insurance component of the plan. VRS handles administration of the remainder of the program, including determination of eligibility for benefits. The Virginia State Police (VSP) performs investigations to assist VRS in the determination of eligibility for benefits, where applicable. VRS uses an independent medical board to review the medical information submitted with LODA claims. The VRS Medical Review Board is comprised of physicians and other healthcare professionals.

Upon taking on responsibility for administration of the program, management developed robust manual processes with checks and balances to manage this benefit and should be commended for their efforts.

There are no written recommendations resulting from our review; however, we communicated to management certain opportunities for minor enhancements to their processes.

### SNAPSHOT

For the period of **July 1** through **December 31, 2019**, the **LODA Program** paid approximately **\$6.3 million** in **health insurance reimbursement** and **death claim benefits**.

#### Program Expenses

Expense	Amount	% of Total
Medicare HI	\$ 335,970	5.4%
DHRM HI	5,722,605	91.3%
Employee HI	85,238	1.4%
Death Claims	125,000	2.0%
<b>Total</b>	<b>\$ 6,268,813</b>	<b>100%</b>

### AUDIT ASSESSMENT

Overall, the **LODA Program** is administered **in accordance** with the **Code of Virginia**, manual processes **supporting administration** of the program are **working as intended**, and **processes** supporting **non-participating employers** are **accurate, timely** and **complete**.

**Written Recommendations: 0**

# BACKGROUND

## INTRODUCTION

### ORGANIZATIONAL CHART



While the Virginia Line of Duty Act (LODA) program has been in place since 1972, VRS took over program administration responsibilities from the Department of Accounts (DOA) on July 1, 2017. The LODA program, administered by VRS’ Line of Duty Act Coordinator, provides benefits for survivors of individuals killed or disabled in the line of duty, which consists of a one-time death benefit payment to surviving beneficiaries and premium-free health insurance coverage for eligible family members and disabled individuals. These benefits are available to employees and volunteers in covered positions.

There are two types of employers, participating and non-participating employers. Participating employers pay VRS a yearly contribution. VRS in turn issues benefit payments on behalf of participating employers from the LODA Fund. Non-participating employers do not make contributions to the LODA Fund and are responsible for paying LODA benefits to their qualifying employees.

VRS makes eligibility determinations for all eligible individuals who are disabled or killed in the line of duty. Non-participating employers are assessed a fee by VRS for each eligibility determination, along with a Virginia State Police (VSP) investigation fee, if applicable. Participating employers do not pay either of these fees as they are part of the annual premium. VSP bills VRS for investigations completed for participating employer claims. The fees are paid by VRS from the LODA Fund.

The Department of Human Resource Management (DHRM) administers the LODA Health Benefits Plans for approved claims of eligible disabled individuals; their eligible family members; and the eligible family members of deceased individuals regardless of whether the employer is a participating or non-participating employer.

There is a statute of limitations for LODA claimants to file for benefits. All claims must be submitted within five years after the death or onset of disability, otherwise the claimant will not be eligible for coverage.

## ELIGIBILITY

### Eligible Positions

An employee or volunteer must serve in an eligible position, as defined by the *Code of Virginia* §9.1-400, with a state or local government in Virginia to be considered for LODA benefits.

LODA Eligible Positions
Law-enforcement officer of the Commonwealth or any of its political subdivisions
Correctional officer as defined in § 53.1-1
Jail officer
Regional jail or jail farm superintendent
City of Richmond Sheriff, Deputy Sheriff, or City Sergeant or Deputy City Sergeant
Police chaplain
Conservation officer of the Department of Conservation and Recreation commissioned pursuant to § 10.1-115
Full-time sworn member of the enforcement division of the Department of Motor Vehicles appointed pursuant to § 46.2-217
Commissioned forest warden appointed under the provisions of § 10.1-1135
Member or employee of the Virginia Marine Resources Commission granted the power of arrest pursuant to § 28.2-900
Department of Emergency Management hazardous materials officer
Regular or special conservation police officer who receives compensation from a county, city or town or from the Commonwealth appointed pursuant to the provisions of Code of Virginia § 29.1-200
Employee of any county, city or town performing official emergency management or emergency services duties in cooperation with the Department of Emergency Management, when those duties are related to a major disaster or emergency, as defined in § 44-146.16, that has been or is later declared to exist under the authority of the Governor in accordance with § 44-146.28 or a local emergency, as defined in § 44-146.16, declared by a local governing body
Non-firefighter regional hazardous materials emergency response team member
Member of any fire company or department or emergency medical services agency that has been recognized by an ordinance or a resolution of the governing body of any county, city or town of the Commonwealth as an integral part of the official safety program of the county, city or town
Member of any fire company providing fire protection services for Virginia National Guard facilities
Member of the Virginia National Guard or the Virginia Defense Force while the member is serving in the Virginia National Guard or the Virginia Defense Force on official state duty or federal duty under Title 32 of the United States Code

## ORDER OF PRECEDENCE

Generally, if there is **no will**, the **death benefit** is made according to the **order of precedence**:

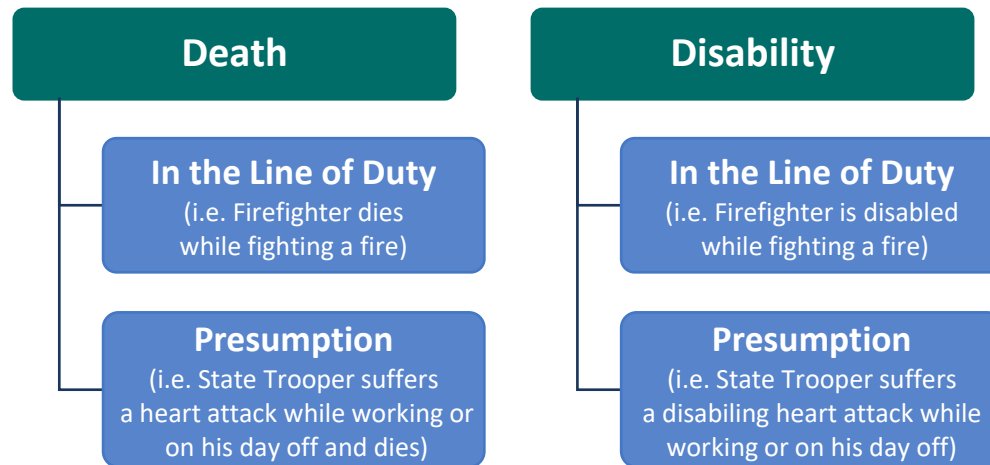
- **First**, to the LODA-eligible individual's **spouse**;
- If **no spouse**, to the LODA-eligible individual's **children** and their **descendants**;
- **If** none of the above, to the LODA-eligible individual's **parents** equally, or to the **surviving parent**;
- **If** none of the above, to the LODA-eligible individual's **brothers** and **sisters** and their **descendants**;
- **If** none of the above, to the LODA-eligible individual's **maternal** and **paternal next of kin** as provided by law; and
- **If** none of the above, to the **family** of the LODA-eligible individual's **most recent spouse**, provided that the **individual** and the **most recent spouse** were **married** at the time of the most recent spouse's death.

Further, volunteers only are covered for LODA benefits, only if the county, city or town they serve has recognized by ordinance or resolution that the volunteers, such as fire fighters and EMS workers, are an integral part of the official safety program of the county, city or town.

## Eligible Claim Types

Eligible death or disability claims must occur in the line of duty as the direct or proximate result of performance of duty, including presumptions as applicable (respiratory diseases, hypertension, infectious diseases, certain cancers and heart disease).

Consequently, there are two categories of claims received and managed under the LODA program, death or disability. In both categories there are line of duty or presumption claims.



## BENEFITS

### Death Benefits

The death benefit under LODA is a one-time payment, which is available if the death was determined to be in the line of duty or allowed presumption in the line of duty. The beneficiary is determined by the will, or if no will exists, by order of precedence as provided in the *Code of Virginia*.

## RELATED DEATH BENEFITS

**Eligible surviving family** members **may be entitled** to **other** VRS administered **benefits** available **under** the **Group Life Insurance** Program, **including**, if applicable, **certain benefits arising** as a **result** of a member dying from a **felonious assault** by **someone other** than a **family member**.

## OTHER BENEFITS

**Further**, there are **other benefits** available to LODA claimants **not administered by VRS**, such as a the Public Safety Officers Benefits program's **college tuition** benefit, **personal property** tax **exemption** and certain **federal benefits**. VRS does **not monitor** or **provide support** for these benefits, **however**, if **inquiries** are **received** about the non-VRS administered benefits, the **LODA team directs** the applicants **to available resources**.

LODA death benefit payments are:

- \$100,000 if death occurs in the Line of Duty; or
- \$25,000 for a presumptive death (cancer, heart issues, etc. associated with the job).

## Health Insurance Benefits

Disabled individuals and eligible surviving family members may continue health plan coverage through the LODA Health Benefits Plans.

Under the *Code of Virginia*, effective July 1, 2017, health insurance is provided to the eligible recipients until the approved applicant reaches Medicare age (65) where the disability or date of death is after July 1, 2017. However, if the date of disability is prior to July 1, 2017, health insurance continues beyond age 65.

DHRM administers the LODA Health Benefits Plans. DHRM conducts their own review for eligibility and handles the enrollment of the LODA approved individual and family members. DHRM monitors age and earned income (which, at a certain level will disqualify the individual for LODA health insurance benefits) to ensure individuals still qualify for the benefit. Documents and information in the VRS case record are available to DHRM by request, if needed for health benefit administration.

## Retroactive Health Insurance Premium Reimbursement

Individuals approved for LODA benefits are entitled to reimbursement of premiums paid out of pocket if not eligible for employer subsidized insurance while waiting for approval of the benefit. This is paid directly by VRS to claimants of participating employers and paid directly by the employer for non-participating employers.

## PROCESSING THE APPLICATION

### Claim Determination Process

VRS receives LODA claim applications either directly from the individual claimant or indirectly through their employer. VRS scans the application and the LODA Coordinator manually logs the case and assigns it for review. A preliminary checklist is completed, providing an initial assessment of eligibility and identification of information needed to process the claim.

*Line of Duty Act (LODA) Pg. 7 of 18*



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## STATUTE OF LIMITATIONS TO APPLY

A **claimant** may apply **within five years** of the **last day worked** in the LODA **covered position** or within five years **of retirement** (presumptive death cases) from the LODA covered position, **as applicable**.

## APPEALING OF CLAIM FILING DENIALS

**Claims** that **do not meet the requirements** to file (ex. out of statute) have a **30 day appeal opportunity**.

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Weekly, the LODA team meets to review and provide status updates on the active applications. At the team meeting, a written case summary is discussed. If the individual is determined ineligible, VRS contacts the individual, notifying them of the decision. The person has a right to appeal this decision. For cases deemed eligible to proceed, VRS notifies the employer in a claim acknowledgement letter that they may contribute information that will assist in reviewing the claim.

Once deemed eligible for processing, death claims are referred to the VSP for investigation to determine the facts and circumstances of the case. Staff may refer disability claims to VSP, as applicable. In particular VSP verifies divorces and marriage, as well as birth information for the children. VSP also confirms whether a will exists and provides assistance in getting medical documentation related to the disability or death, as needed. They provide a written summary of the injury or death of the LODA covered individual based on interviews of witnesses, co-workers and supervisors.

Once the investigation is complete, VSP sends the summary report to VRS. LODA staff review the report and present it for discussion in the weekly LODA meeting. The VSP summary investigation is included with the claim information that is sent to the Medical Review Board. The Medical Review Board reviews LODA medical claim information and documents for both disability and death claims. The Medical Review Board will review the claim documents and provide a written report of their approval or denial recommendation. Once the Medical Review Board report is received by VRS, the claim is reviewed by the LODA team and either approved or denied. VRS then contacts the applicant and the employer to notify of the determination.

### Claim Approvals

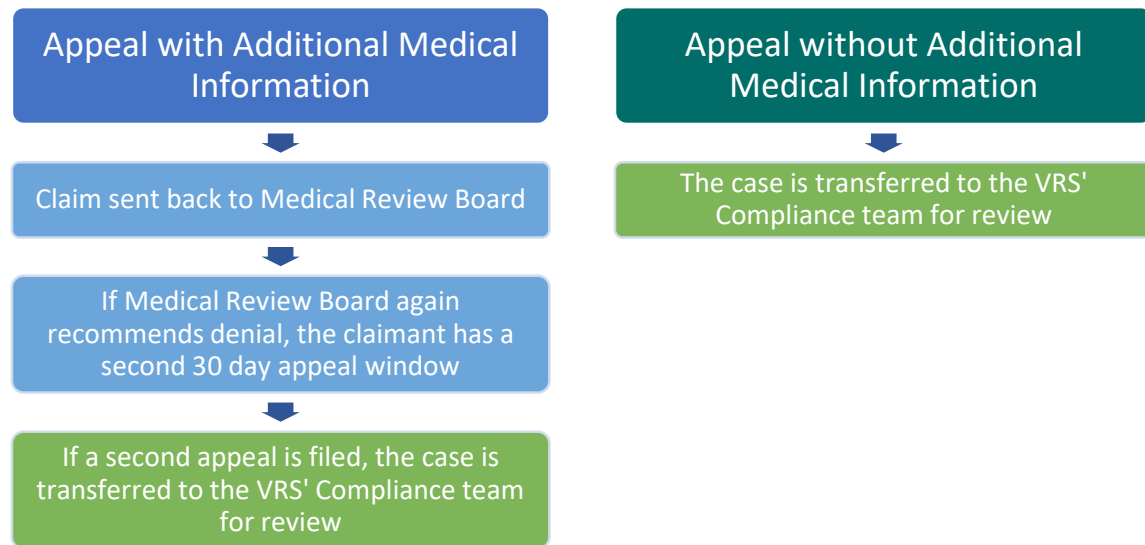
If the LODA benefit is approved, VRS will mail the letter of approval to the eligible individual or surviving family members. For approved death benefit claims, the death benefit payment is then processed.

Upon approval, information is sent to DHRM to notify them of the LODA claimant's approval. VRS includes the LODA approval letter, LODA claim form, date of death (as applicable), employer form and list of qualified dependents in the notification to DHRM. This will aid DHRM in their administration of the health benefit. DHRM will then send the LODA Health Benefits Plans

enrollment form, which they review to determine enrollment eligibility initiating the process of accessing the health insurance benefit.

### Claim Denials

As noted above, if the LODA benefit is denied, the claimant is notified. They have the right to appeal the decision. The employer is also notified that the claim is denied and that there is the opportunity to appeal. Claimants have 90 days to appeal the first denial for all claims that are reviewed and ruled on by the VRS Medical Board and VRS. Two appeal paths are possible depending on whether additional medical information is provided or not.



### Claim Renewal Determinations (Recalls)

A recall of LODA benefits, which necessitates a renewal determination, occurs when there is cause to reconsider a claimant's continued eligibility for benefits. Since acquiring responsibility for administration of the LODA program, only two cases have been recalled for renewal determination. Both were the result of notification by an outside source (a citizen and an employer) that the individual may no longer be eligible. When this occurs, the claimant must provide requested information to VRS and/or the Medical Review Board to determine continued eligibility.

## BENEFIT RELATED EXPENSES

### Retroactive Health Insurance Premium Reimbursement

Once approved, VRS reimburses claimants from participating employers for any eligible health insurance coverage they may have paid for while waiting for LODA benefits approval and enrollment in the LODA Health Benefits Plans. Health Care coverage reimbursement is available after eligibility for the employer subsidized coverage ends. Qualified individuals who were employed by non-participating employers receive their reimbursement from their former employer. If the individual is a retiree and entitled to a Health Insurance Credit (HIC), the HIC is deducted from the reimbursement and payment of the HIC is stopped. HIC is also discontinued for eligible spouses who are receiving a HIC and are covered under the LODA Health Benefits Plans.

### DHRM Reimbursements

#### *Monthly Health Insurance Premium*

DHRM bills VRS monthly for reimbursement of the LODA Health Insurance Premiums paid on behalf of eligible individuals. This bill is for reimbursement of premiums of individuals who were employed by participating employers. (Non-participating employers are billed directly by DHRM for premium reimbursement.) The fiscal year 2018, 2019 and 2020 premiums are reflected in the following chart.

Plan Type	FY 2018 and FY 2019 Premium Rate	FY 2020 Premium Rate
<b>Former LODA Employment</b>		
Single	\$ 991	\$ 952
Dual	\$ 1,667	\$ 1,602
Family	\$ 2,350	\$ 2,258
<b>Current LODA Employment</b>		
Single	\$ 958	\$ 922
Dual	\$ 1,635	\$ 1,572
Family	\$ 2,318	\$ 2,232

### *Quarterly Billing for Medicare Supplement Reimbursement*

DHRM bills VRS quarterly for Medicare supplements related to LODA members covered by participating employers. The Medicare Premium is reflected below:

Medicare Supplement Premium Rate			
Plan Type	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020
Single	\$ 371	\$ 262	\$283

### **ADMINISTRATIVE EXPENSES**

In addition to personnel and organizational overhead costs, VRS reimburses VSP for the cost of the investigations they perform to support the LODA eligibility determination decision.

The VSP sends VRS an invoice for participating employers' investigations. (Non-participating employers are billed directly by VSP.) The billed amount is dependent on the amount of work performed to substantiate eligibility and the timing of the billing is dependent on the conclusion of the investigation.

### **PROGRAM REVENUES**

LODA benefit and administrative expenses are funded through two revenue sources, participating employer contributions and non-participating employer administrative fees.

#### **Participating Employer Contributions**

##### *Contribution Rate*

LODA rates are set every two years by VRS' actuary. The calculation is a per person calculation:

$$\text{LODA Rate} \times \text{Eligible Number of Persons} = \text{Amount Due}$$

The current LODA Premiums are reflected below.

Employer Contribution Rate Per Paid Full-Time or Part-Time Employee*	FY 2019-2020	FY 2021-2022 <i>(Effective July 1, 2020)</i>
	\$705.77	\$717.31

\*Volunteer positions are billed at 25% of the FTE rate; part-time National Guard positions are billed at 10% of FTE rate

### *Contribution Billing Process*

Annually VRS verifies the participating employer’s roster of LODA eligible employees. At the beginning of April, General Accounting sends the prior year’s roster for each participating employer to be updated. General Accounting also determines whether there are any new employers that are participating in the LODA program. If so, they receive a blank roster to complete and return.

In June, as rosters are returned, invoices are created to bill the employers. Invoices are sent out at the beginning of July and payment is due one month from receipt. A receivable is created for all employers. General Accounting provides a combined copy of all rosters to the VRS Actuary which is used to assist in premiums development.

VRS receives participating employer payments via checks and EDI. Checks are deposited by Financial Control, and Accounts Receivable creates a journal entry, relieving the receivable. EDI payments require more attention as they come in with other benefit contribution types. General Accounting must determine the LODA contribution amount and employer and create a journal entry for that specific payment. While allowed by the *Code of Virginia*, penalties are not charged for late payments, except in the most severe circumstances.

### **Non-Participating Employer Administrative Fees**

#### *Administrative Processing Fee*

VRS charges a flat fee to non-participating employers for the LODA claim benefits eligibility determination process. Employers are billed per case processed, whether the claim is approved

## **EMPLOYER “OPT-OUT” OPTION**

**All state** employers **participate** in the **LODA** fund.

**Originally**, there was an **“opt-out” option** for **non-state employers**. The non-state employers had the ability to **make an election** on or before **July 1, 2012** to **directly fund** the **cost** of LODA benefits and **not participate** in the fund.

**Today**, all **new employers** are automatically designated as **participating** employers, there is **no longer** an **opt-out** option.

or denied. The “per claim” fee is \$3,750; however, if the case is denied during the initial preliminary review the fee is \$250.

### *Billing Process*

Non-participating employers are billed quarterly for fees incurred for finalized claims, with a 30 day due date. Billing is tracked on a manual spreadsheet, maintained by the LODA Coordinator. This spreadsheet is shared between the LODA Coordinator and general accountant who records payments as received. Typically non-participating employers make payment via check.

## SCOPE AND METHODOLOGY

The primary purposes of our examination were to:

- Determine whether the administration of the LODA Program is in compliance with the *Code of Virginia*;
- Ensure manual processes are working as intended and support administration of the program; and
- Ensure that processes for non-participating employers are performed accurately, timely and are complete.

## GENERAL ASSESSMENT AND UNDERSTANDING

We obtained a general understanding of LODA as well as the internal controls surrounding the program by meeting with key individuals from each area involved in the process and reviewing relevant documents.

## COMPLIANCE WITH THE CODE OF VIRGINIA

Based on the understanding of the relevant sections of the *Code of Virginia*, LODA case eligibility was reviewed for all claims received during the audit period. Beneficiary payments were assessed for accuracy, proper distribution and timeliness of payment. The LODA Trust Fund was evaluated to determine whether the fund was used exclusively for appropriate and approved LODA benefits, including reimbursement to DHRM for insurance and Medicare premiums.

*Line of Duty Act (LODA) Pg. 13 of 18*

## UNDERSTANDING LODA

**Section 9.1-400** of the *Code of Virginia* was **reviewed** to gain an understanding of the **rules** surrounding **LODA**.

**Internally developed policies** and procedures were **reviewed**, as well as the LODA **Participant Guide** and the LODA **web page** (located at VALODA.org) to **further** our **understanding of** the complexities of **the program**.

Policies and procedures were examined for adequacy and LODA Employer Educational Materials were appraised for sufficiency. LODA renewal determinations (recalls) were reviewed over the audit period to evaluate whether the process was sufficient and within the confines of the *Code of Virginia*.

### **LODA PLAN ADMINISTRATION**

As the LODA program has not yet been incorporated into VNAV as of the date of the audit, the plan is administered through manual processes developed by the VRS LODA team. The LODA Tracking Spreadsheet was appraised for reasonableness and completeness and to ensure its location was secure and limited to those with a business purpose. Further, a sample of participating employers were selected and their 2020 yearly billing for participation in the LODA program was evaluated to determine whether billing was accurate, timely and properly recorded.

Retroactive health insurance premium reimbursement was reviewed for all applicable claimants during the audit period to determine if reimbursements were timely, properly supported and approved and payment was properly recorded. A sample of health insurance premium payments to DHRM for regular insurance and Medicare coverage paid on behalf of LODA claimants were examined to ensure they were properly reviewed and approved prior to payment, paid timely, properly supported and payment was properly recorded.

VSP Investigation invoices for the audit period were evaluated for proper support, timeliness of payment, proper approval of the invoice and that payment was properly recorded. A more in-depth review of claimant eligibility was performed on a sample of claimants during the audit period to determine whether the LODA Tracking Spreadsheet was complete, accurate and supporting documentation validated the approval of the claim.

All LODA Death Benefit payments were reviewed for the audit period to establish proper approval, timeliness and support of payment and that the payment was properly recorded.

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### **SYSTEM ACCESS**

The **LODA Coordinator's** VNAV **access** was assessed to **ensure** it was **limited** to those **roles needed** to perform the **job duties**, **supporting** the policy of **Least Privilege**.

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## **NON-PARTICIPATING EMPLOYER PROCESSES**

Non-participating employer processes were evaluated to determine whether the proper administrative fees were assessed and billed in the subsequent quarter. Bills were reviewed for accuracy, were properly recorded on the manual spreadsheet maintained for billing purposes and that VRS notified claimants of the decision within 45 days of receiving all necessary information for determining eligibility of the claim.

## **CONCLUSIONS**

### **GENERAL ASSESSMENT AND UNDERSTANDING**

Overall the processes and procedures used to administer the LODA program are done within the confines of the *Code of Virginia*. Further, management has established appropriate processes, sufficient internal controls and appropriate segregation of duties to ensure the accuracy and integrity of administration of the benefits.

### **COMPLIANCE WITH THE CODE OF VIRGINIA**

Evaluation of LODA case eligibility found that eligibility was appropriately and accurately determined for all claims received during the audit period. Beneficiary payments reviewed were accurate, properly distributed and timely. The LODA Trust Fund was used exclusively for approved LODA benefits and insurance premium reimbursements.

Policies and procedures were well documented and appropriate, and LODA Employer Educational Materials were sufficient to ensure employer understanding of the program. LODA renewal determinations were found to be handled appropriately and within the confines of the *Code of Virginia*.

### **LODA PLAN ADMINISTRATION**

Evaluation of the LODA Tracking Spreadsheet found the information recorded was generally complete, appropriately secured and sufficient to administer the program successfully.



Testing of participating employer billing found invoices were accurate, timely and properly coded in MUNIS. We did note during testwork, however, that entries for receivables and cash receipts related to employer billing were not entered into the general ledger timely. This information was shared with management for their consideration to develop alternative procedures to improve the timeliness of recording receivables, which in turn would support more efficient processing of employer payments.

Review of retroactive health insurance premium reimbursements found they were timely, properly supported and approved and payment was properly coded in MUNIS. Further, examination of the sample of Health Insurance Reimbursements to DHRM found they were properly reviewed, approved, timely paid, properly supported and properly recorded.

A more in-depth review of claimant eligibility was performed on a sample of claimants during the audit period and found that, overall, the LODA Tracking Spreadsheet was complete, accurate and supporting documentation validated the approval of the claim. Additionally, LODA Death Benefit payments reviewed found they were properly approved, supported, paid timely and properly recorded.

Examination of VSP investigation invoices found they were properly supported, approved, timely paid and properly recorded. During review of these invoices, an opportunity to enhance the management of VRS' relationship with VSP through a Memorandum of Understanding to capture items which fall outside the normal processing expectations was shared with management.

### **NON-PARTICIPATING EMPLOYER PROCESSES**

Evaluation of non-participating employer processes found that employers were assessed the proper administrative fee for investigations and were properly billed the following quarter. Bills were accurate and properly recorded on the manual spreadsheet maintained for billing purposes, and claimants were notified of their eligibility determination within 45 days of VRS receiving all necessary information needed to make a decision.

## **FOLLOW-UP ON PRIOR REPORTS**

This is the first review of the LODA program. As a result, there were no outstanding audit recommendations to consider.

## **RECOMMENDATIONS**

We have no written recommendations to offer as a result of our review.

## **MANAGEMENT EXIT CONFERENCE**

This report was distributed to Ms. Bishop and other members of VRS' management and staff for review and comment. They expressed substantial agreement with this report.

As there are no written recommendations, a written response from management is not required.

## REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held  
September 29, 2020.

### MEMBERS OF THE AUDIT AND COMPLIANCE COMMITTEE

Joseph W. Montgomery, Committee Chair  
W. Brett Hayes  
O'Kelly E. McWilliams, III, Board Chair

WITH COPIES TO:

#### OTHER MEMBERS OF THE BOARD OF TRUSTEES

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Kimberly A. Sarte  
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### PRINCIPAL AUDITOR IN-CHARGE

Judy S. Bolt, CPA, CIA, CISA, CFE

### SUPERVISING AUDITOR

Kristy M. Scott, CPA, CIA, CISA

# **Multi-Asset Public Strategies Program**

**As of November 1, 2019**

**THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.**



## TRANSMITTAL LETTER

July 31, 2020

Dear Members of the Audit and Compliance Committee,

We have completed audit number 432, “Multi-Asset Public Strategies Program.” The main purpose of our audit was to ensure due diligence and monitoring activities are adequate and align with the applicable Investment Policy Statements.

We conducted our audit in accordance with the *International Standards for the Professional Practice of Internal Auditing*. These standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for the conclusions based upon our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report was distributed to the Chief Investment Officer and members of management for review and comment. As our review did not result in a written recommendation, management did not provide a written response but expressed substantial agreement with our report.

We appreciate the cooperation and assistance of the Investment Department throughout this audit.

Respectfully Submitted,

A handwritten signature in black ink that reads 'Jennifer P. Bell Schreck'.

**Jennifer P. Bell Schreck, CPA, CISA, PMP**  
Audit Director

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## EXECUTIVE SUMMARY

We have conducted an examination of the Multi-Asset Public Strategies (MAPS) Program within the VRS' Investment Department as of November 1, 2019. Our review determined:

- Management's administration of the program complies with the applicable Investment Policy Statements;
- Sufficient and appropriate due diligence and monitoring activities are occurring; and,
- MAPS accounting transactions are accurate, reconciled and timely recorded by the Bank of New York Mellon (BNYM).

The MAPS Program is one component of the Portfolio Intelligence Team, the other being Investment Research. Given the distinct nature of each component, this report will solely focus on the MAPS Program, and a separate concurrent report will cover the activities and controls surrounding Investment Research.

Additionally, this review did not include an evaluation of the external manager fees related to the MAPS Program, as the controls surrounding investment fees were addressed in a separate recently completed examination.

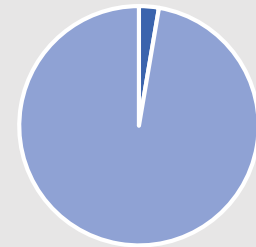
There are no written recommendations resulting from this review.

Note: In early 2020, after commencing our examination, a reorganization occurred within the VRS Investment Department, renaming the Portfolio Intelligence Team to the Portfolio Solutions Group (PSG). Therefore, after a brief introduction, we will refer to the MAPS Program as part of PSG throughout the remainder of the report.

### SNAPSHOT

The total **value** of the **Multi-Asset Public Strategies Program** as of **November 1, 2019** was **\$2.2 billion**, representing **2.7%** of the **Total Fund**.

MAPS Value  
vs. Total Fund Value



### AUDIT ASSESSMENT

**Adequate oversight and monitoring controls exist over the MAPS Program.**

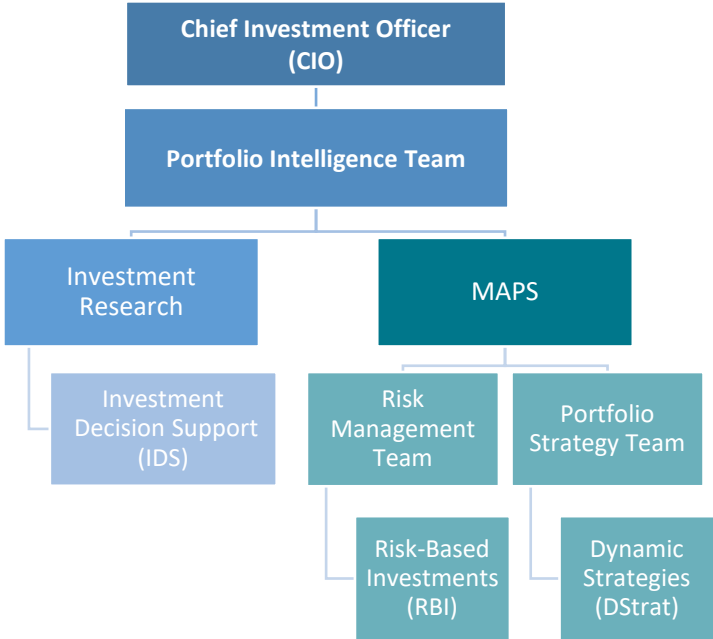
**Written Recommendations: 0**

# BACKGROUND

## INTRODUCTION

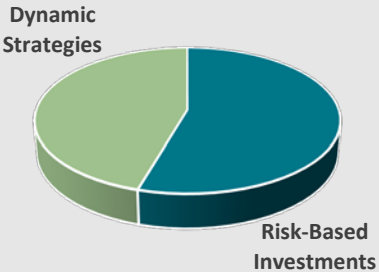
The value of the Multi-Asset Public Strategies (MAPS) Program as of November 1, 2019 was \$2.2 billion, or 2.7% of the total fund. At the time of our review, the MAPS Program policy target was 3%, with an allowable range between 2% and 4% of the total fund. However, the long-term policy target for the MAPS Program is projected to increase to 6% with an allowable range between 3% and 9%, as stipulated in the Defined Benefit Plan Strategic Asset Allocation phase-in plan. Since inception on July 1, 2018, the MAPS Program has generated a net time-weighted return of 2.4%, annualized.

The MAPS Program has two sub-components, Dynamic Strategies (DStrat) and Risk-Based Investments (RBI). When we initiated this review, the Directors for each of these portfolios reported to the Managing Director of the Portfolio Intelligence Team. In addition to the MAPS Program, the Investment Research Director reports to the Managing Director of the Portfolio Intelligence Team. The diagram below illustrates the Portfolio Intelligence Team structure.



Multi-Asset Public Strategies (MAPS) Pg. 4 of 19

### MULTI-ASSET PUBLIC STRATEGIES PROGRAM (MAPS)



As of **November 1, 2019**, the **Dynamic Strategies** Investment Portfolio made up **\$1 billion** and the **Risk-Based Investments** Portfolio made up **\$1.2 billion** of the Program's **\$2.2 billion** in value.

## PROGRAM HISTORY

The MAPS Program launched in July 2018 to explore strategies that are not yet mainstream in the pension community. An important feature of both DStrat and RBI is mind-share, or actionable knowledge transfer, for which the total trust fund benefits.

The Portfolio Strategy Team manages the DStrat portfolio, and the Risk Management team manages the RBI portfolio. Both portfolios utilize external managers to gain exposure for their respective objectives. However, DStrat aims to emulate the public portion of the VRS portfolio and provide diversified excess returns, while RBI's goal is to provide diversified absolute returns to the total fund.

### Program Reorganization

In early 2020, after commencing our examination, a reorganization occurred within the VRS Investment Department which renamed the former Portfolio Intelligence Team to the Portfolio Solutions Group (PSG). The overarching goal of the newly created PSG is to provide investment solutions for each VRS Investment Program and for VRS as a whole. The reorganization changed the team name to capture this goal and also added the Portfolio Integration group, which reports directly to the Portfolio Solutions Group Team Managing Director.

Therefore, PSG is now comprised of four groups: Investment Research, Portfolio Strategy, Risk Management and Portfolio Integration. The Investment Research group continues to include the Investment Decision Support (IDS) team, and the existing Portfolio Strategy and Risk Management teams remain part of the Multi-Asset Public Strategies Program.

The newly created Portfolio Integration team is currently comprised of one member who was the former Program Director of the Internal Equity Management team. In this new position, he has been tasked with assisting the other PSG teams on research and strategy implementation.

## THE DEPARTMENTS UNDER REVIEW

### Risk Management

The Risk Management team is responsible for leading the research, development and maintenance of a complex quantitative system which provides estimates for a full range of

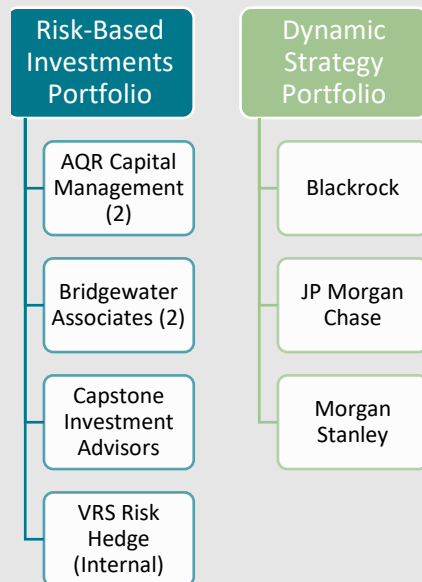
## REORGANIZED PROGRAM STRUCTURE





## MAPS INVESTMENT ACCOUNTS

The diagram below illustrates the managers and accounts that comprised the MAPS Program as of our audit period. VRS may invest in one or more accounts with each external manager.



information for individual investment programs. The team analyzes risk from the Fund perspective and collaborates with Program Directors on quantitative work, such as modeling risk and return or running scenario analyses. Other responsibilities include reporting trends and summarizing views based on macroeconomic indicators.

### *Risk-Based Investments (RBI) Portfolio*

The Risk Management team is also the primary manager of the RBI Portfolio which is intended to provide diversification to the main risks facing the Fund. They are responsible for all aspects of the program including due diligence, monitoring and making investment recommendations. The RBI Portfolio is comprised of both internally and externally managed accounts. Presently, the Fixed Income Team manages the one internal account and three separate external managers oversee the remaining accounts.

The main goal of the RBI portfolio is to diversify a significant risk factor of the portfolio: equity risk. The identification of strategies for inclusion into RBI centers on finding return streams that are uncorrelated or negatively correlated to the rest of the portfolio over time in order to increase diversification. The RBI portfolio is a collection of strategies that needs to be internally diversified and withstand different economic regimes and market environments as not all strategies work in tandem during market stress.

There are two main subcomponents in RBI: diversifying strategies and risk parity. The diversifying strategies component is meant to be differentiating to the portfolio and is expected to have very low correlation with the portfolio over time. These strategies include: managed futures, alternative betas and style premia, global macro strategies, alpha strategies, volatility strategies and other lowly correlated strategies. They are designed to be complementary to the current investment structure and should provide risk diversification for the total fund. Risk Parity portfolios will invest in strategies that balance risk exposures across traditional betas in order to form a portfolio free of any bias to economic environments. In general, risk parity strategies are not as diversifying but provide a source of return that is much more balanced to the main asset class risk factors than the rest of the portfolio.

## Portfolio Strategy

The Portfolio Strategy team is tasked with developing, implementing and managing a systematic ongoing process for identifying interesting investment strategy ideas that offer potentially value-added opportunities for tilting VRS fund exposures away from policy benchmarks. These strategies are opportunities that have the potential to improve the fund's return without materially increasing the risk or reduce the Fund's risk without materially decreasing the return, or some combination of both. Even though VRS is overall a long-term investor, this team's planning horizon is focused on one to three years in the future, which aligns with the team's responsibilities of exploring opportunities away from policy benchmarks which are not yet mainstream in most pension portfolios.

### *Dynamic Strategies (DStrat) Portfolio*

The Portfolio Strategy team also manages a portfolio that invest funds in external management sources to implement cross-asset strategy initiatives. They are responsible for all aspects of this program including due diligence, monitoring and making investment recommendations. The DStrat Portfolio funds are dispersed across three external managers.

The DStrat mandate brings a top-down allocation approach customized to the VRS plan portfolio's characteristics. The addition of this mandate provides a diversifying source of excess return to the portfolio as well as differentiated insights that have the potential to directly translate to the management of the portfolio's overall exposures over time. It provides valuable cross-asset class viewpoints and strategies that complement the asset class program structure of the VRS investment portfolio.

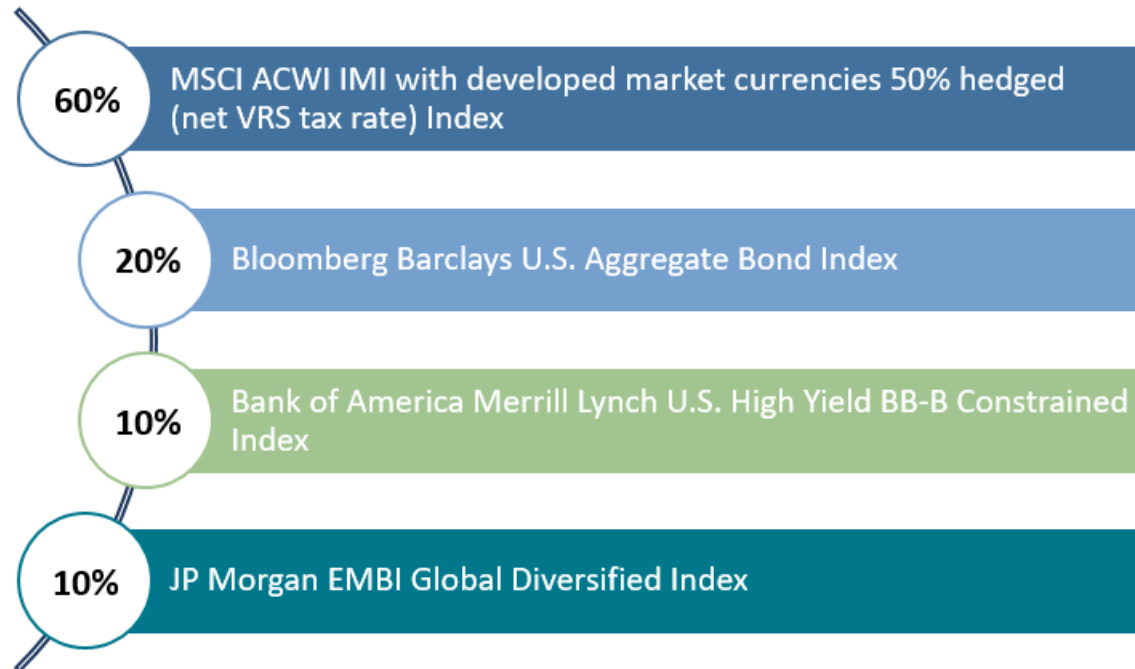
The mandate seeks to add excess return predominantly through the management of the asset allocation of the portfolio as well as to incorporate broad, thematic views into portfolio construction. Philosophically, it is designed to replicate the public market exposures of the Fund and provide insights into potential enhancements to the excess return stream. The managers within this mandate are considered strategic partners with VRS where the deliverable extends beyond investment performance to include knowledge sharing and information transfer.

## Performance Benchmarks

MAPS Program investment performance is measured against Board of Trustees (Board) approved benchmarks for each portfolio.

### *Dynamic Strategies Portfolio Benchmark\**

The custom blended DStrat benchmark is comprised of the following components:



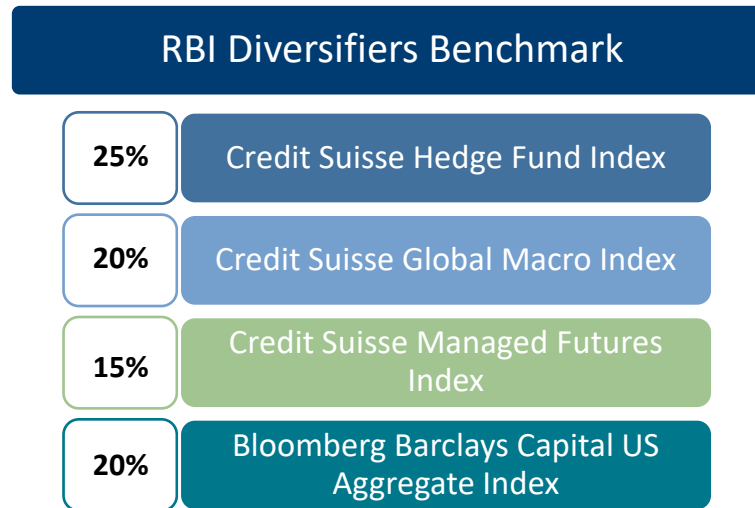
### *Risk-Based Investments Portfolio Benchmark\**

The custom blended RBI benchmark is comprised of the following components:



*\*Note: Effective January 1, 2020, the Board approved changes to certain indices used in both benchmarks to more closely correlate them to each program's respective investment approaches. The percentage allocations across the indices remain.*

Further, the 80% RBI Diversifiers Benchmark is allocated to diversifying strategies as follows:



### INVESTMENT POLICY STATEMENTS

The governing document for the total fund is the VRS Defined Benefit Plan Investment Policy Statement, which the Board most recently approved in November 2018. Based on this policy statement, the overall investment objective of the VRS portfolio is to maximize return while managing risk within an acceptable range. The Board has delegated to the Chief Investment Officer (CIO) the authority to establish and modify as necessary the program level investment policy statements. Therefore, the CIO approves any material changes to the risk profile and/or the return objectives for the Program.

#### Multi-Asset Public Strategies Investment Policy Statements

The DStrat Investment Policy Statement was most recently updated in September 2019, and the RBI Investment Policy Statement was most recently updated in October 2019. The overall objective of both the DStrat and RBI portfolios is to generate returns that meet or exceed the public strategies within the VRS portfolio with a similar risk profile. These mandates strive to add excess returns predominantly through active asset allocation decisions and the incorporation of broad, thematic views.

The DStrat and RBI Investment Policy Statements also define the programs' structure, risk analysis considerations, due diligence expectations related to hiring and monitoring, records retention requirements, program reporting, as well as non-compliance remedies and termination procedures.

#### *Investment Policy Monitoring*

The DStrat and RBI Investment Policy Statements do not contain quantifiable elements that would require monitoring on specific intervals, such as category ranges, leverage requirements or private/public asset mix. However, accounts holding publicly traded securities do have specific investment guidelines that are periodically monitored by the Program Director.

Further, the MAPS Program uses the Bank of New York Mellon's (BNYM) compliance monitoring services for accounts that contain publicly traded positions. Each of these publicly traded accounts have specific investment guidelines that are coded into BNYM's Compliance Monitor tool to ensure adherence to the applicable policy as well as timely notification and remedy to any potential violations. The VRS Compliance Department oversees BNYM's compliance monitoring process on behalf of the Investment Department.

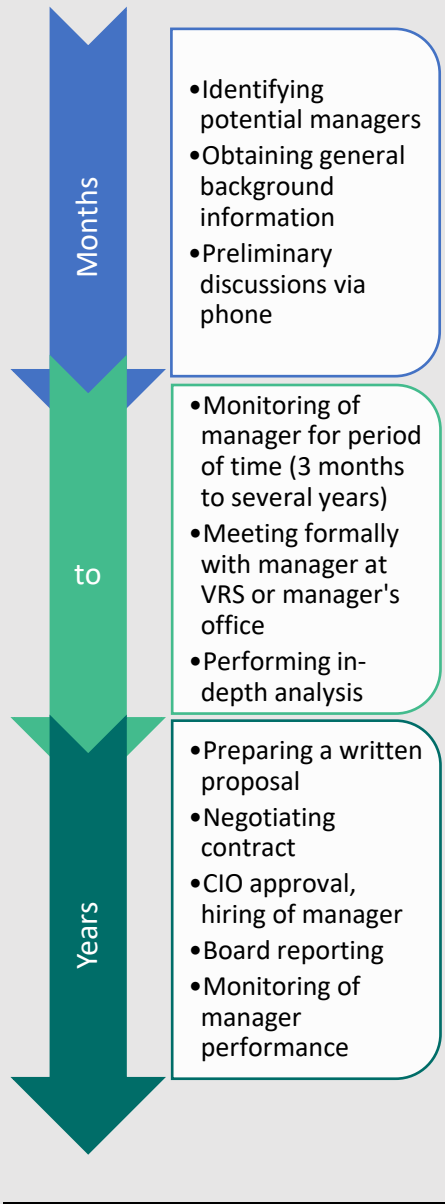
### **NEW INVESTMENT DUE DILIGENCE**

Potential new investments and managers are identified through numerous avenues, including: prior experience with the manager, referrals from other pension plans/managers, industry presentations, presentations to VRS staff, etc. The timing for identifying new managers is not predetermined. Potential new managers will move through the due diligence process as suitable matches to VRS' investment needs and preferences are recognized.

Once a desirable match is identified, member(s) of the investment team will gather manager provided information and other background information through publicly available sources such as the Security and Exchange Commission's website, discussions with other managers, information service providers, etc. Based on an assessment of the information obtained, a determination will be made if a preliminary discussion with the manager should be scheduled.

When a preliminary discussion is desired, VRS will meet with the manager (either in Richmond or at the manager's operating location) who will present information regarding the fund and its investment strategy to VRS' investment professionals.

## VRS DUE DILIGENCE SNAPSHOT



If the Investment Department is interested in the strategies offered by the external manager, it will begin to gather additional due diligence materials and monitor the manager's performance. This process can range from a few months to several years.

Once VRS determines it has a true interest in investing with the external manager, the Investment and Compliance Departments will perform an in-depth analysis of the manager and related due diligence in preparation of a written proposal. Assuming these due diligence activities do not uncover something adverse, the manager will be invited to formally present their investment opportunity. While a majority of investments that reach this stage are successful, it is also a possible outcome that information learned during the formal manager meeting would be indicative that the investment is not in alignment with VRS' goals and objectives (including fee structure) and the investment consideration would be discontinued.

As the due diligence process draws to completion, a VRS team member will prepare a written proposal (referred to as the Investment Recommendation Memorandum) with an overview of the investment and a description of numerous data points, including: a summary of the investment; the firm offering it and its investment team; the strengths and weaknesses of the manager; key investment terms; asset reporting; valuation and custody; track record; risk factors; and the proposed action plan.

The Director, or his staff designee, will generally begin contract negotiations with the external managers to define the contract terms including the investment amount and related fees. Additionally, the Compliance Department will begin its separate due diligence process which typically includes sending a compliance due diligence questionnaire to the prospective manager, performing a biographical and criminal background check and holding due diligence calls with executive leadership of the potential manager.

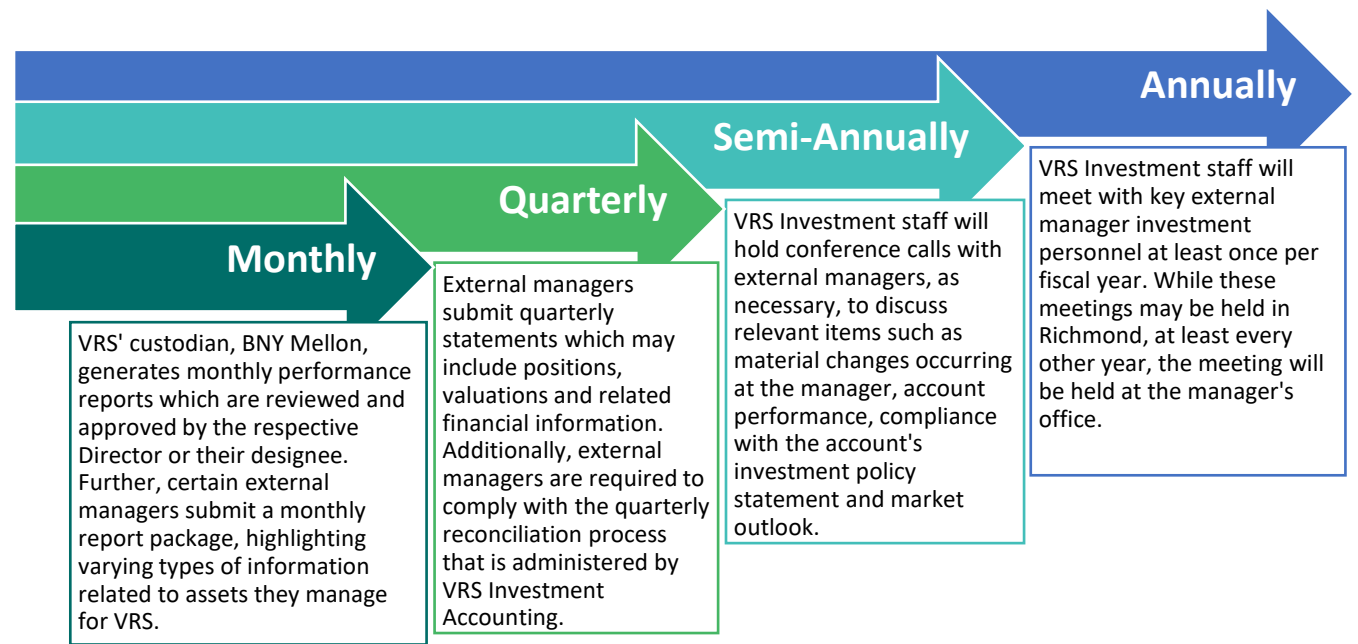
The Compliance Department's due diligence questionnaire evaluates numerous areas of the external manager and includes such items as: ownership structure, material developments, SEC registration, description of back-office operations, external audit reports, third parties utilized by the manager, description of controls including cash and custody arrangements and disclosures of any regulatory actions taken against the manager. Key personnel background checks are also

performed for all new managers and, as deemed appropriate, for new investments with an existing manager.

Assuming favorable due diligence results, a contract is executed by either the CIO or the Chief Administrative Officer upon approval of the investment by the CIO. Once an executed contract is in place, the manager is considered hired. However, an initial investment may not immediately take place, as the investment timing depends on the external manager's strategy.

### DUE DILIGENCE AND MONITORING OF EXISTING INVESTMENTS

Monitoring existing managers is a continuous effort that draws both on quantitative and qualitative elements. In order to ensure managers are adequately monitored, a cycled approach is utilized. Additionally, given the nature of certain managers and their accounts, there will be a range of available data points. Therefore, the Directors and their staff utilize their judgement to gather and consider information relevant to the monitoring process on a manager-by-manager basis. The following graphic provides a high-level illustration of the ongoing monitoring process.



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## SSAE 18

A **Statement on Standards for Attestation Engagements No. 18** report, otherwise known as a **SOC** (System and Organization Control) **report**, offers assurances on the services provided by an **external** service organization which gives **valuable** information to users to **assess** and **address** the **risks** associated with the **outsourced service**.

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In addition to the process depicted above, an annual supplemental questionnaire is completed by each external manager and submitted to VRS. The objective of the questionnaire is to provide the VRS team updated information regarding changes in qualitative and quantitative areas of the external manager's operations. The questionnaire generally also includes a "Contract/Agreement Compliance Certification Form" which must be signed by an authorized individual. This form certifies the manager acted in compliance with the terms and conditions set forth in any and all contract/agreements between the firm and VRS from inception through the date indicated.

## RECONCILIATIONS

VRS requires all external managers of publicly traded accounts to reconcile investment balances with VRS' master custodian, BNYM, on a monthly basis. For the MAPS publicly traded accounts, this reconciliation process is administered by BNYM and is subject to audit as a part of its annual SSAE 18 review (SOC 1, Type 2 Report). Additionally, quarterly reconciliations are obtained and reviewed by the VRS Investment Accounting Department to support VRS' oversight of the monthly reconciliation process managed by BNYM.

### Publicly Traded Accounts

For MAPS accounts holding publicly traded assets and in the custody of BNYM, external managers submit quarterly reconciliations directly to VRS' Investment Accounting Department. Staff review these reconciliations for overall reasonableness. As they are publicly traded, VRS relies on BNYM's monthly reconciliation process to investigate and clear any reconciling items for these accounts, which are mainly attributable to pricing differences or timing issues. These reconciliations are due within 45 days after quarter end to ensure timely completion in accordance with VRS' reconciliation policies and procedures.

### Hedge Fund Accounts

BNYM's Complex Accounting and Administration Group (CAAG) is responsible for gathering preliminary information to prepare the quarterly reconciliations for those MAPS accounts classified as hedge funds. Once completed, this reconciliation is reviewed by a member of the Public Equity Team.



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## REVIEW FOCUS

This **review focused** specifically on **Risk Management** and **Portfolio Strategy**, which make up the **MAPS** portfolio, under the **Portfolio Intelligence Team**, which was **recently reorganized** into the **Portfolio Solutions Group**.

**Investment Research**, the other component of the Portfolio Intelligence Team, will be **reported** out under a **separate cover**.

---

## COMMITMENTS

Outstanding commitments are tracked internally by VRS. The accurate capture of commitments is necessary to support financial reporting disclosure requirements in VRS' audited financial statements. However, all MAPS Program investments are fully funded when the investment contracts are executed.

## SCOPE AND METHODOLOGY

The primary purposes of our examination were to:

- Determine compliance with the MAPS Investment Policy Statements;
- Ascertain whether the due diligence and monitoring activities are sufficient and appropriate; and,
- Ensure MAPS transactions are accurate, reconciled and recorded timely by BNYM.

## GENERAL ASSESSMENT AND UNDERSTANDING

A general understanding of the MAPS Program, as well as the associated controls, was obtained by meeting with key individuals. Applicable policies and procedures and other relevant documents associated with the MAPS Program were also reviewed.

## MAPS INVESTMENT POLICY STATEMENT COMPLIANCE MONITORING

BNYM Compliance Monitor reports as of June 30, 2019 and October 31, 2019 were obtained for all applicable MAPS accounts. All exceptions noted were reviewed for adequate resolution. Additionally, parameters associated with each account coded in BNYM Compliance Monitor were evaluated for agreement with the applicable investment guidelines.

## **NEW INVESTMENT DUE DILIGENCE**

New manager due diligence documentation was reviewed for all MAPS accounts since the Portfolio's inception date of July 2018. For each account reviewed, compliance with the following was evaluated:

- The external manager's investment strategy is in line with the investment objectives included within the applicable Investment Policy Statement;
- An Investment Recommendation Memorandum was prepared, including sufficient information to support the recommendation;
- The Investment Recommendation Memorandum was approved by the CIO;
- All legal documents were reviewed and properly executed;
- Operational due diligence, including questionnaires and background checks, was completed; and,
- The investment was reported to the Investment Advisory Committee and the Board of Trustees.

## **MONITORING EXISTING INVESTMENTS**

All MAPS accounts were selected to evaluate compliance with the monitoring procedures found within the applicable Investment Policy Statement. For each account reviewed, compliance with the following was assessed:

- An annual manager meeting occurred;
- A complete annual supplemental due diligence questionnaire was obtained;
- A certification stating the manager acted in compliance with the terms and conditions set forth in any and all contract/agreements was obtained;
- The Securities and Exchange Commission Form ADV-2 was obtained and reviewed (as applicable);
- Monthly performance reports were reviewed and approved; and,
- Audited financial statements were obtained (as applicable).

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## POLICY STATEMENT COMPLIANCE

**Overall,**  
VRS **complies** with the  
**MAPS Investment Policy**  
**Statements** allowing for **proper**  
**oversight** of the Portfolio's  
**investment activities.**

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## RECONCILIATIONS

The Investment Accounting departmental procedures related to the quarterly reconciliation process were obtained and reviewed for completeness and overall reasonableness. The September 30, 2019 quarterly reconciliations for all MAPS accounts were selected to assess whether each reconciliation agreed to supporting documentation, was completed timely and was properly approved.

## CONCLUSIONS

### GENERAL ASSESSMENT AND UNDERSTANDING

Overall, VRS complies with the applicable Investment Policy Statement and has put in place adequate oversight and monitoring over the MAPS Program. We found the Investment Policy Statement adequately defines the investment objectives, allowable strategies and risk analysis considerations, along with due diligence expectations related to hiring and monitoring.

Minor observations, which did not warrant attention in our report, have been referred to management for their consideration.

### INVESTMENT POLICY STATEMENT GUIDELINES

All exceptions identified on the June 30, 2019 and October 31, 2019 BNYM's Compliance Monitor reports for the applicable MAPS accounts were adequately resolved in an appropriate amount of time.

Further, the BNYM Compliance Monitor guidelines applied to each account agreed with VRS' investment guidelines. We did observe certain situations that continue to provide false positive exceptions within BNYM Compliance Monitor reports. However, management continues to work with BNYM to refine the investment objective coding to ensure the false positives are minimized.

## **NEW INVESTMENT DUE DILIGENCE**

Substantial and sufficient due diligence activities are being applied by the Investment and Compliance Departments. Due diligence results were adequately captured within the Investment Recommendation Memorandum and the Compliance external manager review documentation.

All new MAPS accounts were communicated to both the Investment Advisory Committee and the Board of Trustees.

## **MONITORING EXISTING INVESTMENTS**

Appropriate monitoring activities in accordance with investment policy guidelines were being applied for existing MAPS Program investment relationships. In certain instances, VRS management may not receive timely audited financial statements due to the timing of the account's effective date. In their place, VRS obtains weekly performance updates and monthly reporting packages to monitor the account's financial activity until such financial statements are provided to cover the period for which VRS was an investor.

## **RECONCILIATIONS**

The Investment Accounting Department has appropriate quarterly external manager reconciliation procedures and processes in place to ensure all accounts are adequately reconciled. The September 30, 2019 reconciliations reviewed were adequately supported, completed timely and properly approved.

## **FOLLOW-UP ON PRIOR REPORTS**

There were no outstanding audit recommendations to consider.

## **RECOMMENDATIONS**

We have no written recommendations to offer as a result of our review.

## MANAGEMENT EXIT CONFERENCE

This report was distributed to Mr. Schmitz and other members of VRS' management and staff for review and comment. They expressed substantial agreement with this report. As there are no written recommendations, a written response from management is not required.

## REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held  
September 29, 2020.

### MEMBERS OF THE AUDIT AND COMPLIANCE COMMITTEE

Joseph W. Montgomery, Committee Chair  
W. Brett Hayes  
O'Kelly E. McWilliams, III, Board Chair

WITH COPIES TO:

#### OTHER MEMBERS OF THE BOARD OF TRUSTEES

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Michael P. Disharoon  
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#### VRS EXECUTIVE LEADERSHIP

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Ronald D. Schmitz  
Members of the Director's  
Executive Committee

#### AUDITOR OF PUBLIC ACCOUNTS

Martha S. Mavredes

#### JLARC

Kimberly A. Sarte  
Jamie Bitz

### PRINCIPAL AUDITOR IN-CHARGE

Joshua G. Fox, CIA, CIDA, CFE

### AUDIT SUPERVISOR

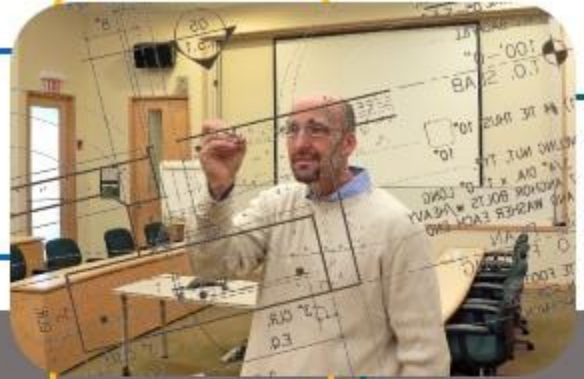
Matthew Priestas, CIA, CRMA, CISA, PMP

*Multi-Asset Public Strategies (MAPS) Pg. 19 of 19*

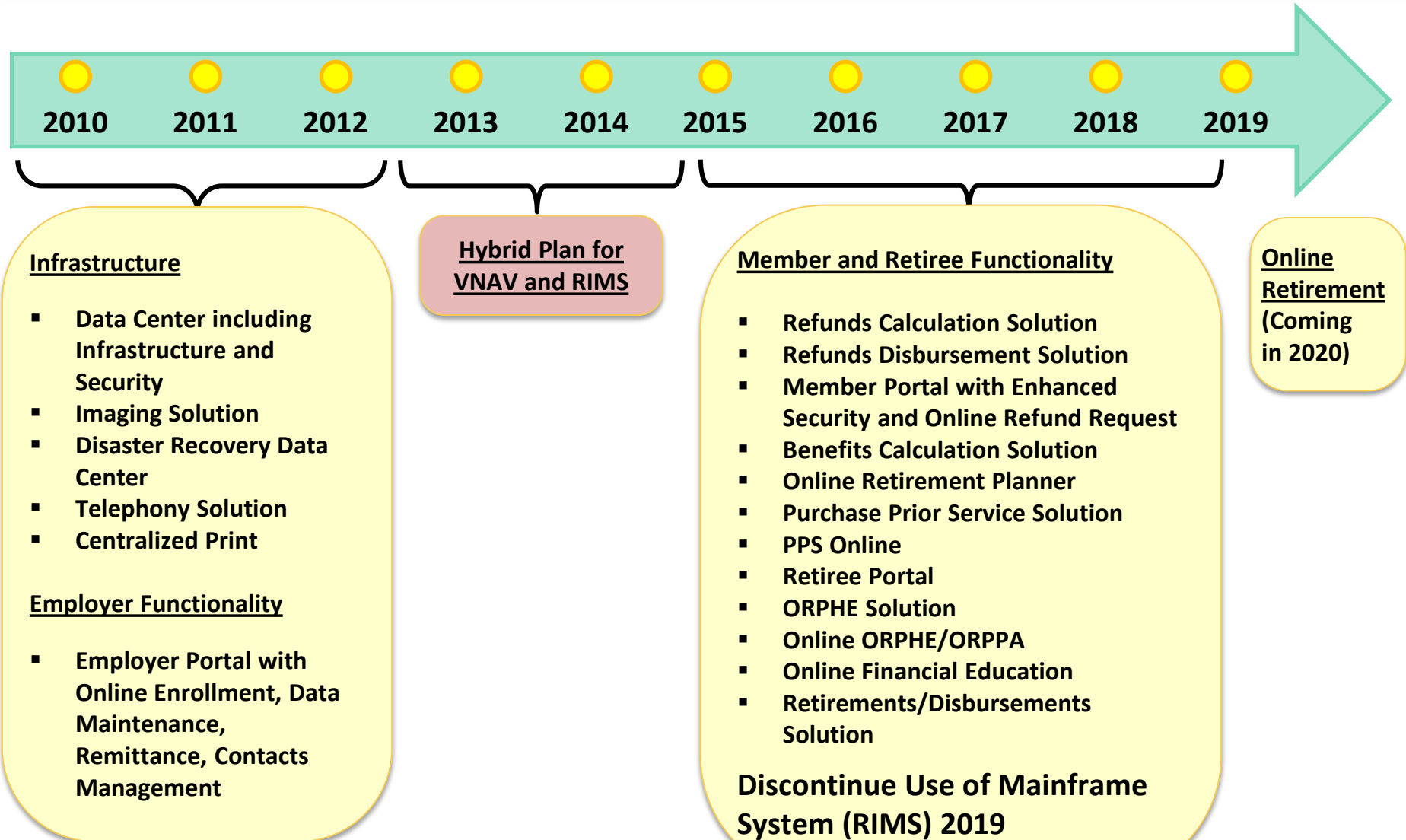
# Quarterly Reports on the Modernization Program - Phase 4

# Modernization Phase 4

Audit Committee  
September 29, 2020

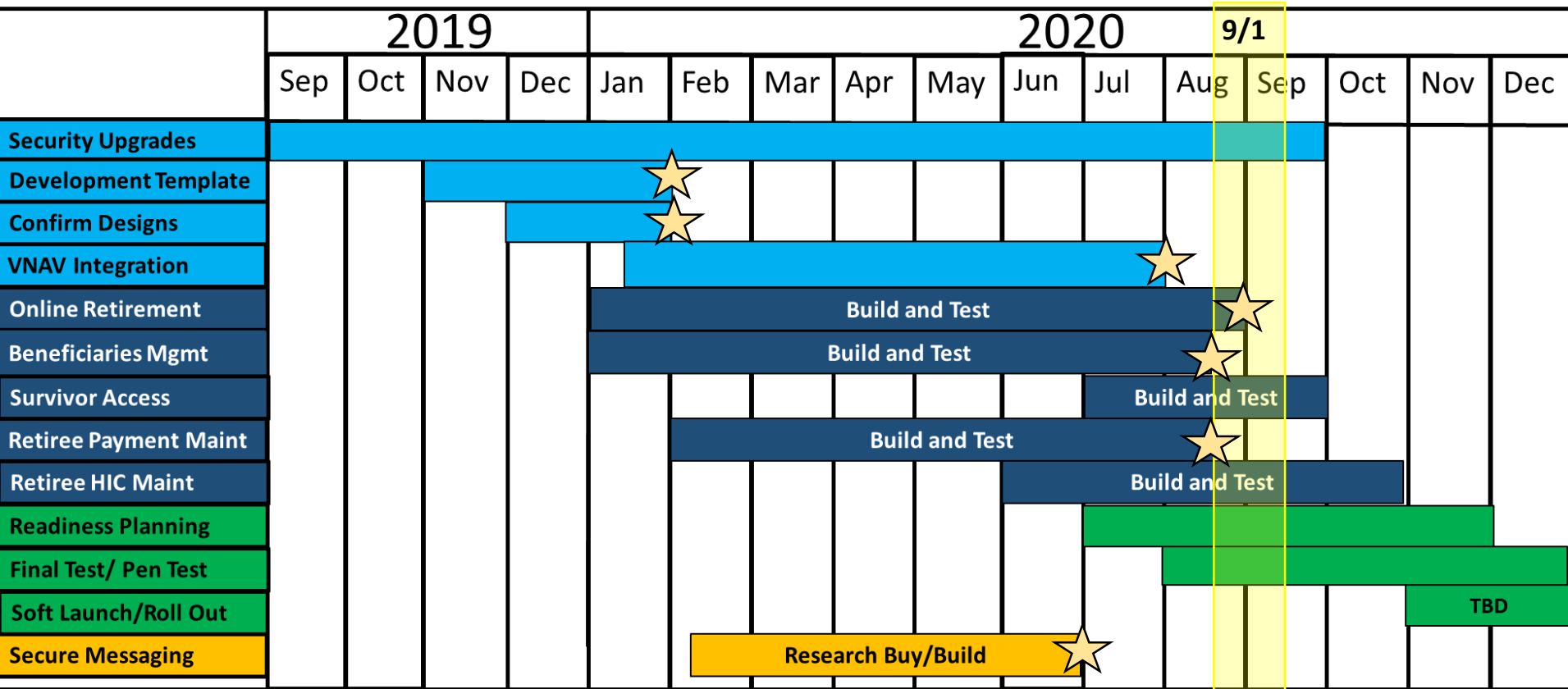






- Modernization Program
  - The final deliverable under the Modernization Program is a set of new features for myVRS
    - Online retirement
    - Beneficiaries management
    - Retiree payment maintenance
    - Retiree health insurance credit maintenance
    - Survivor access
- This status report reflects progress as of 9/1/2020

# Project Plan



- Software build is expected to complete for the final component in October
- Rollout will likely occur feature by feature and must be done in a manner that does not impact year end processing. Dates are to be determined.

# Software Status

myVRS Feature	Window Build	Integration Build	System Testing	Acceptance Testing
Online Retirement	Complete	Complete	Complete*	In Progress
Payment Maintenance	Complete	Complete	Complete	
Beneficiary Management	Complete	Complete	Complete	
Health Insurance Credit Maintenance	Complete	Complete	In Progress	
Survivor Access**	In Progress			

\*Additional testing will occur when security features are complete

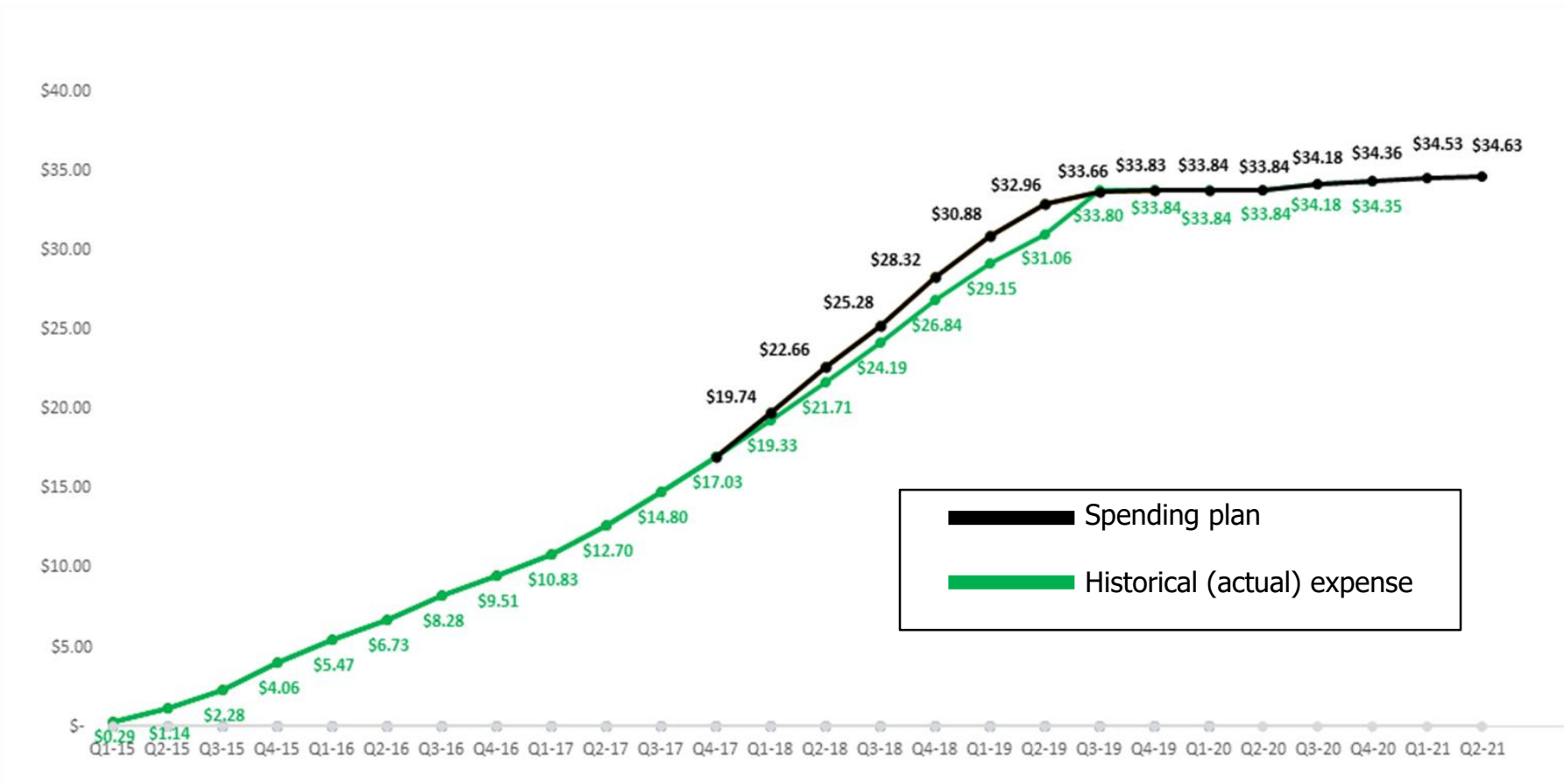
\*\*Survivor Access is behind schedule:

- Adding functionality to mail a PLOP rollover check directly to the retiree
- Delays in contracting with security data service provider
- Will not delay implementation

- Security Upgrades
  - New IP geolocation analytics capability is in place
  - Implementing software changes and a data service that will provide data about each user that we can use to analyze behavior (for example history of ownership of cell phone number and email address)
  - Adding multi-factor authentication at log-in
  - Contracting with data service provider took longer than expected, but all security upgrades will be present at implementation
- Secure Messaging
  - Our review determined that Commercial Off-The-Shelf (COTS) software is not available that meets all of our requirements and can be easily integrated with VNAV
  - VRS will custom build a secure messaging feature at a future date

- Outreach and training
  - Development of embedded educational videos is in progress
  - Outreach/feedback sessions with employers restarted in July; feedback has been positive
- Software build and system testing for all features will complete by the end of October
  - User acceptance testing and security penetration testing will complete by December
- VRS will utilize a soft launch approach
  - Rollout will be done feature by feature
  - Initially a limited number of members will be invited to use a feature in a pilot program
  - Allows for careful monitoring and correction of any issues before they impact a larger population

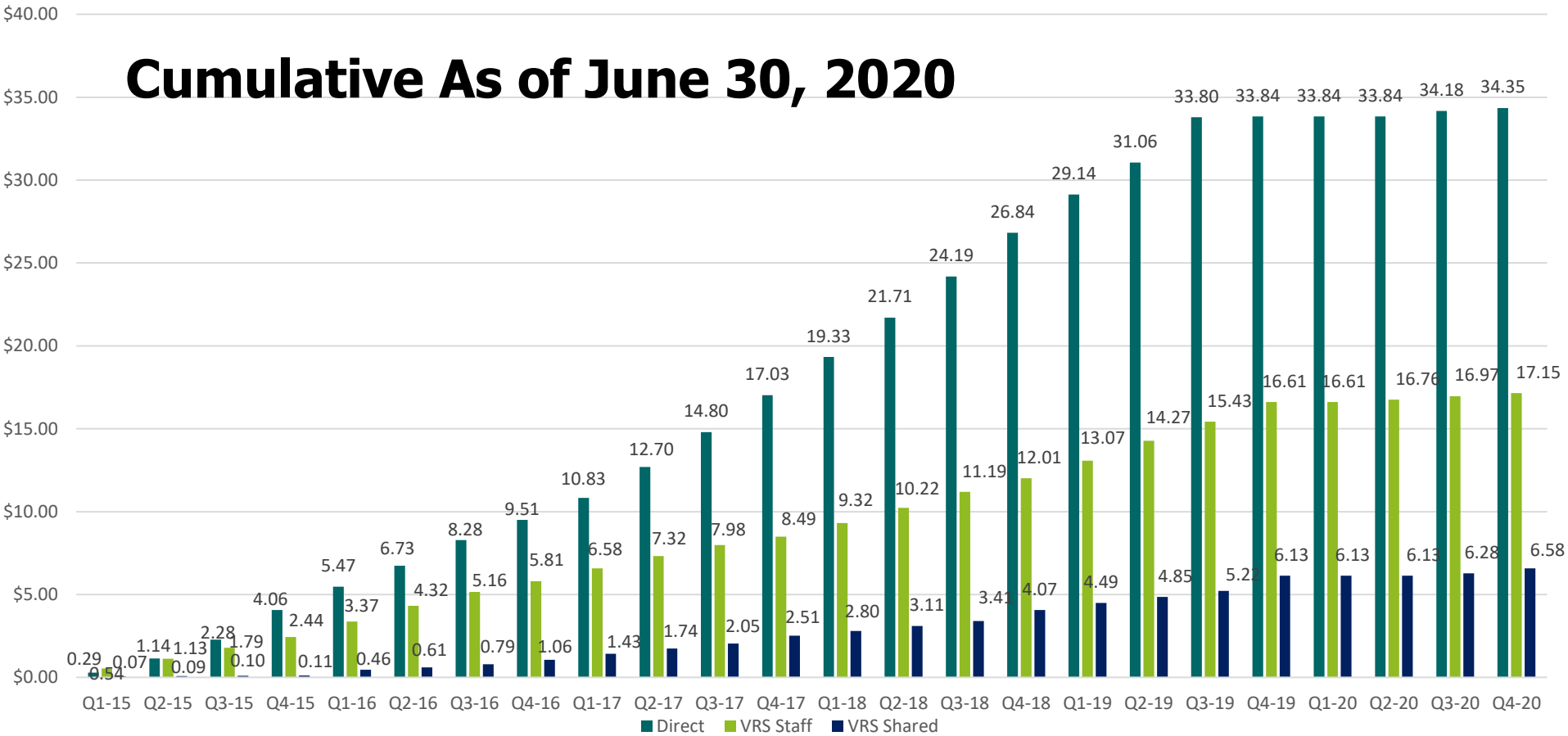
# Budget as of 6/30/2020



# Total (Direct and Indirect) Cost



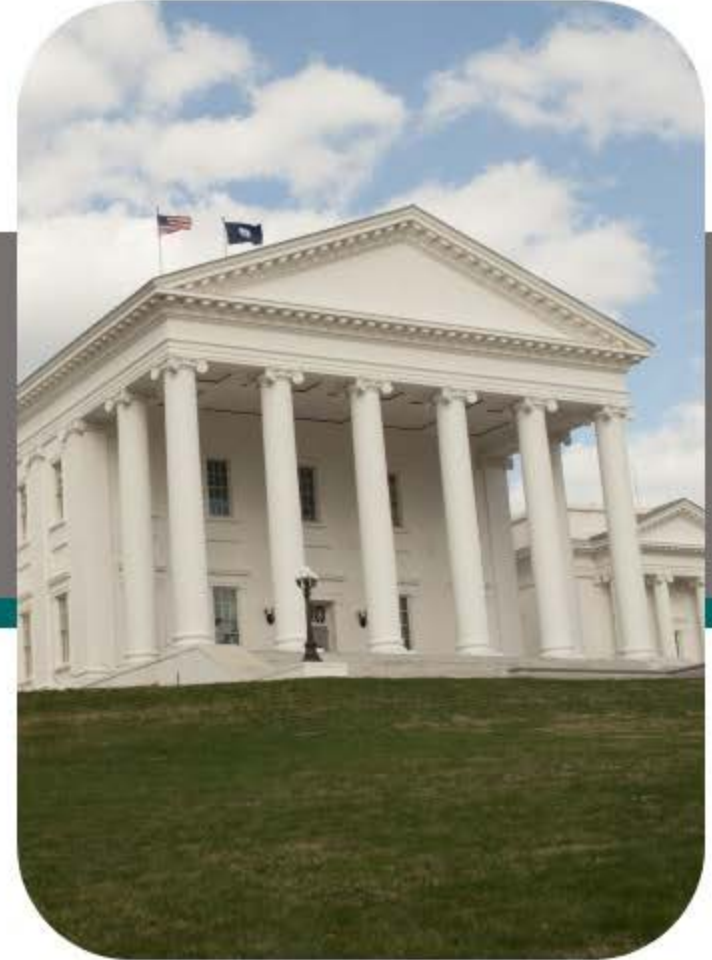
## Cumulative As of June 30, 2020





# myVRS - Online Retirement

September 29, 2020



# Pages We'll Look At

- Apply for Retirement Page
- Pre-Counseling Page
- About You Page
- Retirement Date and Payout Option Page
- Payment Destination Page
- Tax Withholdings Page
- Health Insurance Credit Page
- Review and Submit Page

# Apply for Retirement Page

1. Video includes important information to prepare Members for retirement

myVRS

Home

My History

Manage My Benefits

Retirement Planning

Benefit Estimator

Financial Wellness



Help

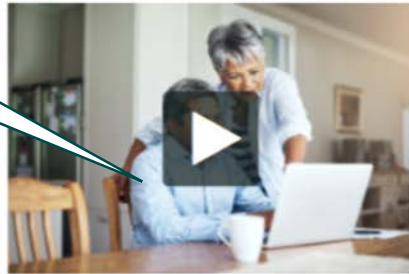
Delbert Weader

Logout

## Apply for Retirement

Home \ Manage My Benefits \ Apply for Retirement

### Are You Ready to Retire?



Congratulations on your years of service and all that you have accomplished as a public service employee. Now it's time to focus on yourself, your loved ones and your goals for the next phase of your life.

Before you apply for retirement, have you created a recent benefit estimate and used the retirement planner to ensure you are on track to retire? Check out those tools before you begin. Also, see the Helpful Links & Resources below for additional information about your benefits.

[Create a Benefit Estimate](#)



#### Did you know?

VRS offers free individual retirement counseling onsite at its Richmond office as well as scheduled appointments by phone. Counseling hours are 8:30 a.m. - 4 p.m., Monday through Friday.

#### I Want To...

- [Create a Benefit Estimate](#)
- [Apply for Retirement](#)
- [Learn About Purchasing Service](#)
- [View Annual Report](#)

### Before You Apply

#### Review Your Compensation History

Your records show your most recent compensation earned as a VRS-covered employee is \$58,587.78.



#### Remember to Notify Your Employer

Make sure your employer know when you plan to retire.



#### Review Your Employment History

Your records show you have 24 yrs, 10 mos of defined benefit service.



#### Purchase Prior Service (PPS)

VRS does not have any prior service indicated on your records; however, you may have unreported eligible service to purchase.



#### Helpful Links & Resources

- [Getting Ready to Retire Handbook](#)
- [Retirement Education and Counseling](#)
- [Retirement Readiness Checklist](#)

### Continue Your Retirement Application

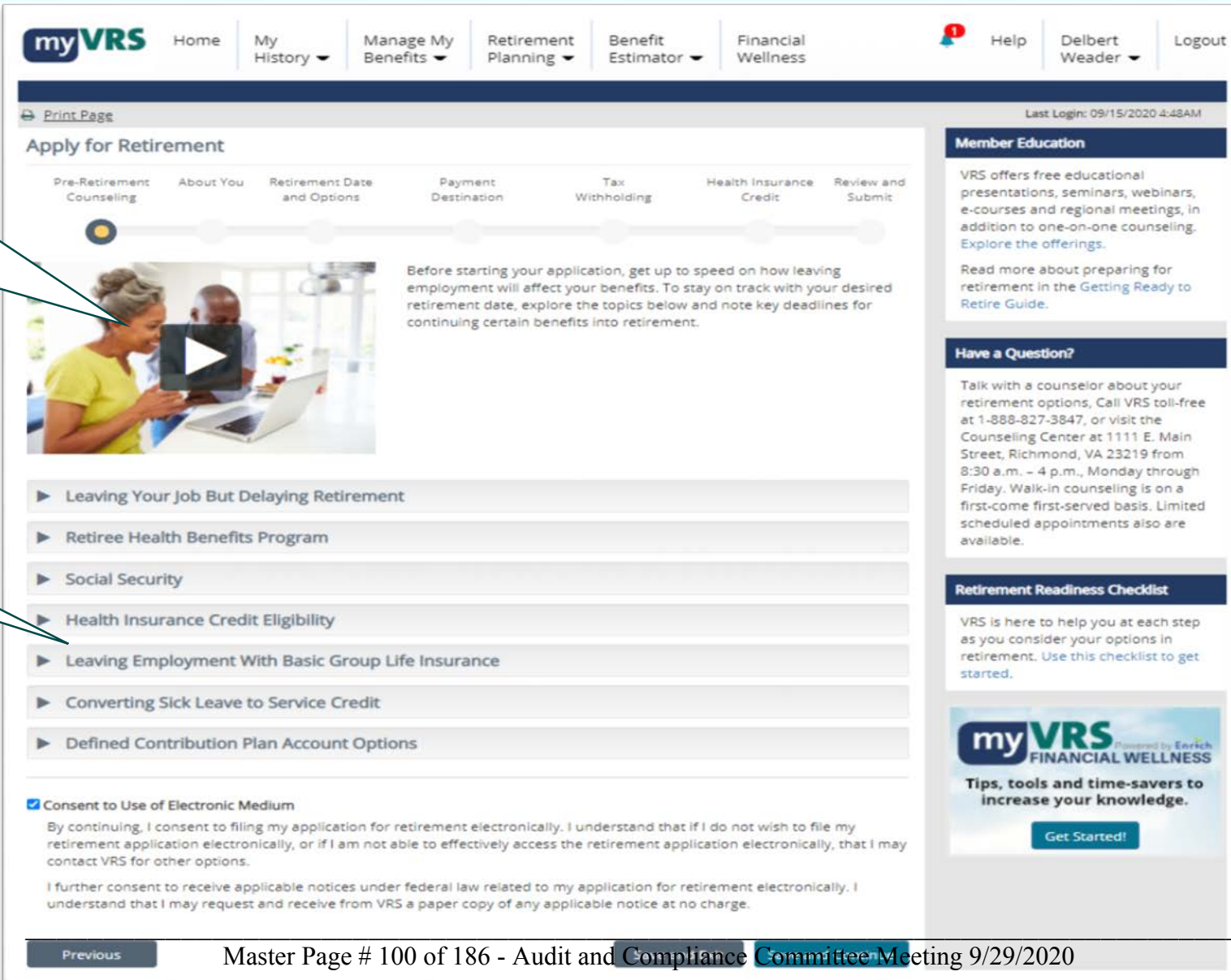
You have a retirement application in progress that has not been submitted to VRS. Click the button below to continue your application.

[Continue Retirement Application](#)

4. Members can review their employment history for accuracy

5. Reminds the member of any purchase of prior service agreements in place

# Pre-Counseling Page

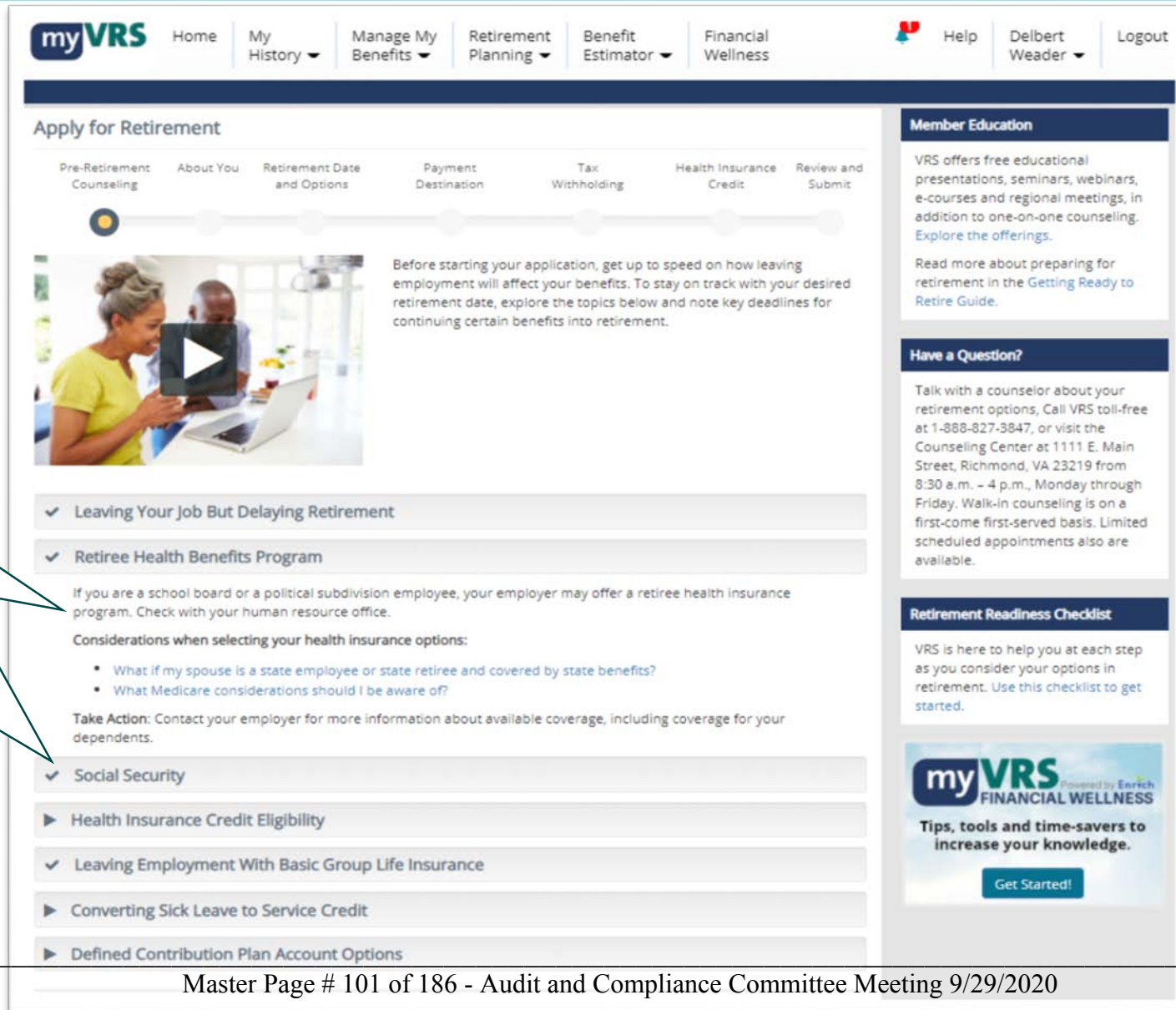


The screenshot shows the 'myVRS' website interface for the 'Apply for Retirement' process. The navigation bar includes 'Home', 'My History', 'Manage My Benefits', 'Retirement Planning', 'Benefit Estimator', and 'Financial Wellness'. A user profile for 'Delbert Weader' is visible. The main content area features a progress bar with steps: Pre-Retirement Counseling, About You, Retirement Date and Options, Payment Destination, Tax Withholding, Health Insurance Credit, and Review and Submit. A video player is embedded in the 'Pre-Retirement Counseling' step. Below the video is a list of accordion panels for topics like 'Leaving Your Job But Delaying Retirement', 'Retiree Health Benefits Program', 'Social Security', 'Health Insurance Credit Eligibility', 'Leaving Employment With Basic Group Life Insurance', 'Converting Sick Leave to Service Credit', and 'Defined Contribution Plan Account Options'. A consent section is at the bottom. The right sidebar contains 'Member Education', 'Have a Question?', and 'Retirement Readiness Checklist' sections.

1. Video includes critical information regarding retirement and the retirement submission process

2. Accordion panels provide “counseling” information specific to the Member

# Pre-Retirement Counseling Page Cont...

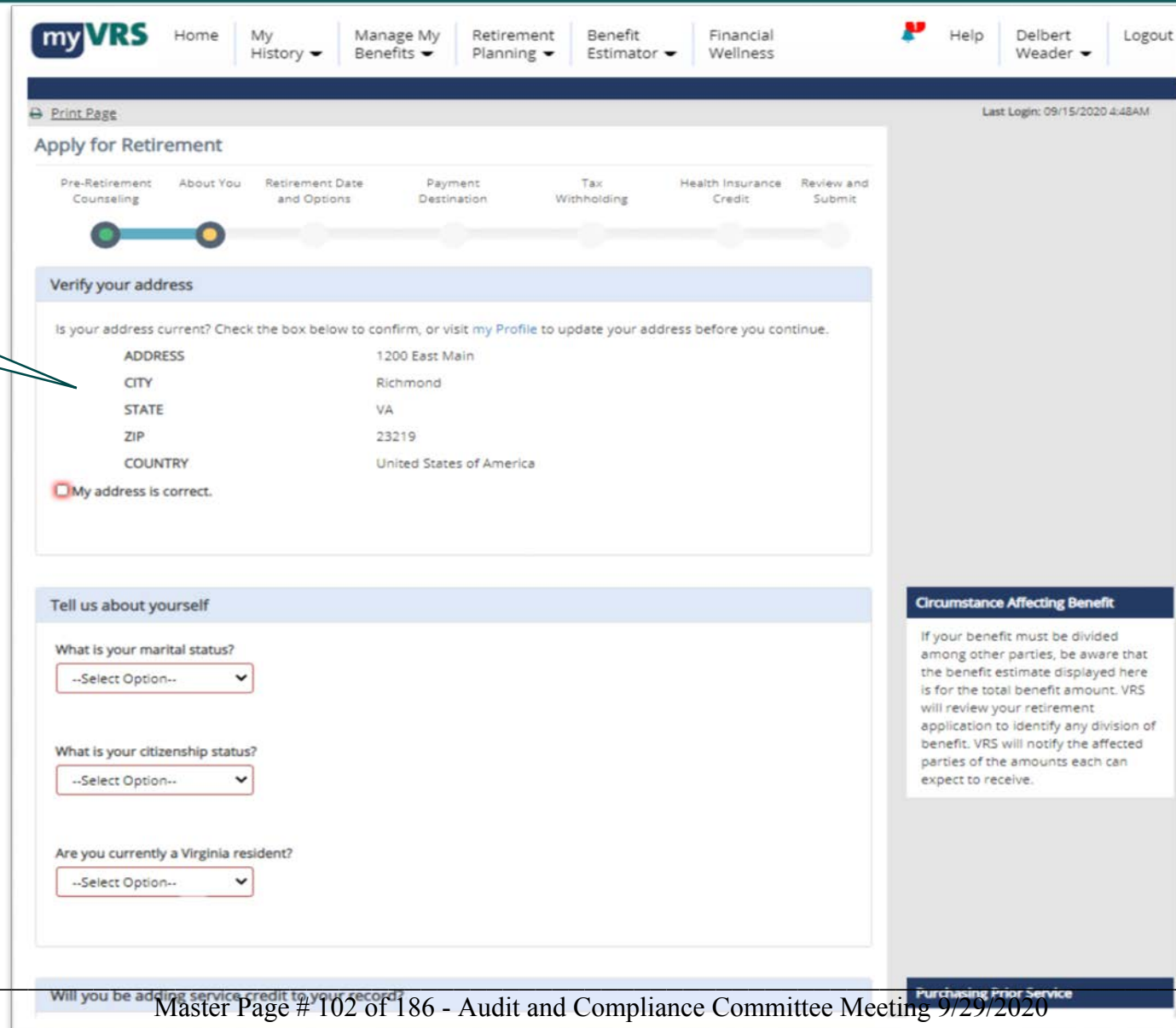


The screenshot shows the 'myVRS' website interface. At the top, there is a navigation bar with links for Home, My History, Manage My Benefits, Retirement Planning, Benefit Estimator, Financial Wellness, Help, Delbert Weader, and Logout. The main content area is titled 'Apply for Retirement' and features a progress bar with steps: Pre-Retirement Counseling, About You, Retirement Date and Options, Payment Destination, Tax Withholding, Health Insurance Credit, and Review and Submit. The 'Pre-Retirement Counseling' step is currently active. Below the progress bar, there is a video player showing a woman and a man looking at a laptop. To the right of the video, there is a text block: 'Before starting your application, get up to speed on how leaving employment will affect your benefits. To stay on track with your desired retirement date, explore the topics below and note key deadlines for continuing certain benefits into retirement.' Below this text, there is a list of accordion panels. The first two panels, 'Leaving Your Job But Delaying Retirement' and 'Retiree Health Benefits Program', are expanded and marked with a checkmark. The 'Retiree Health Benefits Program' panel contains text about school board or political subdivision employees and a list of considerations when selecting health insurance options. Below this, there is a 'Take Action' section. The other accordion panels are collapsed and marked with a play button icon. On the right side of the page, there are three additional sections: 'Member Education', 'Have a Question?', and 'Retirement Readiness Checklist'. The 'Member Education' section offers free educational presentations, seminars, webinars, e-courses, and regional meetings. The 'Have a Question?' section provides contact information for a counselor. The 'Retirement Readiness Checklist' section offers help at each step of the retirement process. At the bottom right, there is a 'myVRS FINANCIAL WELLNESS' banner with the text 'Tips, tools and time-savers to increase your knowledge.' and a 'Get Started!' button.

1. Accordion panels expand upon click to provide additional member-specific information
2. Selected accordions are marked with a “check mark” to indicate the Member opened it

# About You Page

1. Address verification to ensure we send retirement letters to the correct address



myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Print Page Last Login: 09/15/2020 4:48AM

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options Payment Destination Tax Withholding Health Insurance Credit Review and Submit

#### Verify your address

Is your address current? Check the box below to confirm, or visit [my Profile](#) to update your address before you continue.

ADDRESS	1200 East Main
CITY	Richmond
STATE	VA
ZIP	23219
COUNTRY	United States of America

My address is correct.

#### Tell us about yourself

What is your marital status?  
--Select Option--

What is your citizenship status?  
--Select Option--

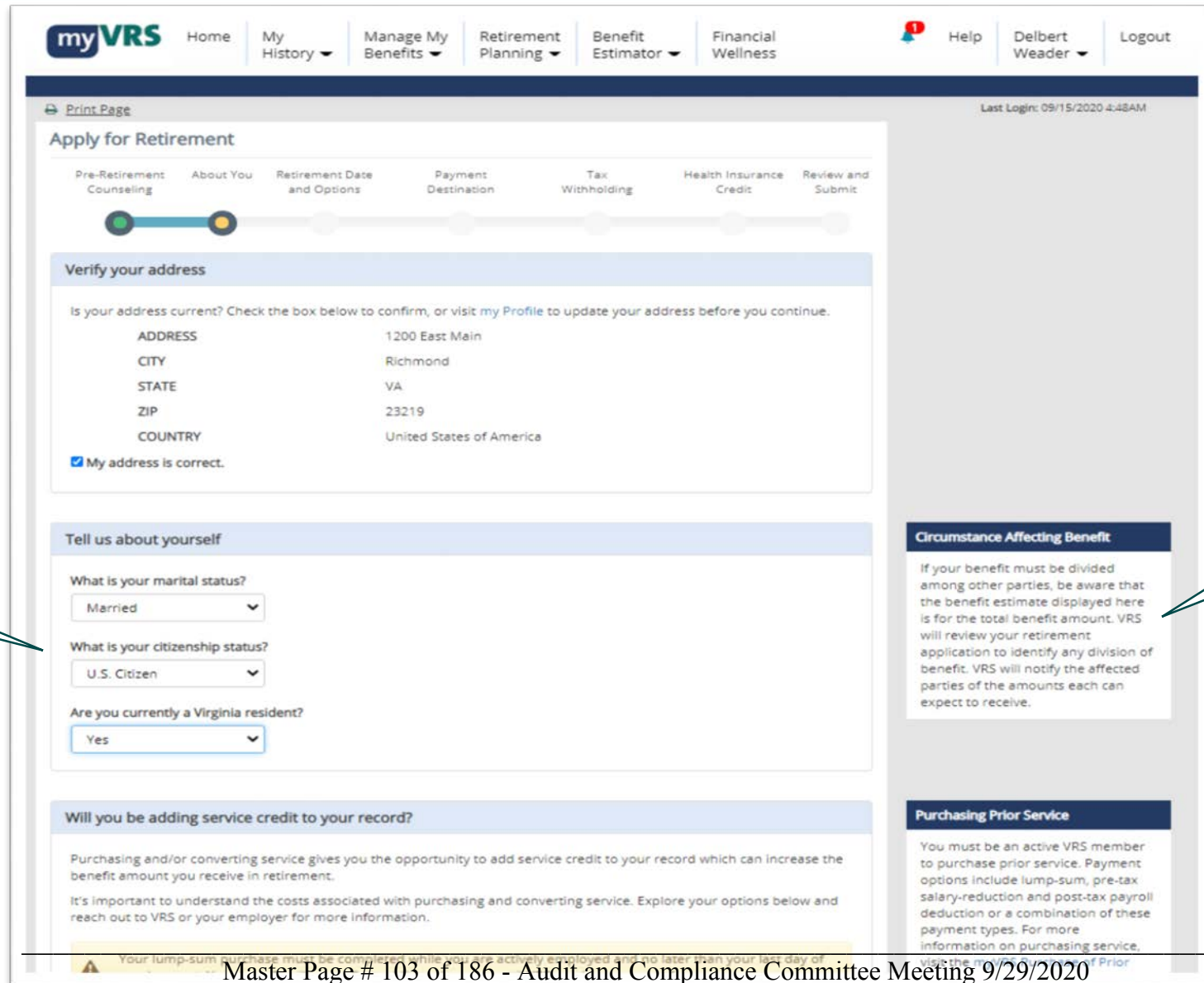
Are you currently a Virginia resident?  
--Select Option--

#### Circumstance Affecting Benefit

If your benefit must be divided among other parties, be aware that the benefit estimate displayed here is for the total benefit amount. VRS will review your retirement application to identify any division of benefit. VRS will notify the affected parties of the amounts each can expect to receive.

Will you be adding service credit to your record? Purchasing Prior Service

# About You Page Cont...



myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Print Page Last Login: 09/15/2020 4:48AM

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options Payment Destination Tax Withholding Health Insurance Credit Review and Submit

#### Verify your address

Is your address current? Check the box below to confirm, or visit my Profile to update your address before you continue.

ADDRESS	1200 East Main
CITY	Richmond
STATE	VA
ZIP	23219
COUNTRY	United States of America

My address is correct.

#### Tell us about yourself

What is your marital status?  
Married

What is your citizenship status?  
U.S. Citizen

Are you currently a Virginia resident?  
Yes

#### Will you be adding service credit to your record?

Purchasing and/or converting service gives you the opportunity to add service credit to your record which can increase the benefit amount you receive in retirement.

It's important to understand the costs associated with purchasing and converting service. Explore your options below and reach out to VRS or your employer for more information.

#### Circumstance Affecting Benefit

If your benefit must be divided among other parties, be aware that the benefit estimate displayed here is for the total benefit amount. VRS will review your retirement application to identify any division of benefit. VRS will notify the affected parties of the amounts each can expect to receive.

#### Purchasing Prior Service

You must be an active VRS member to purchase prior service. Payment options include lump-sum, pre-tax salary-reduction and post-tax payroll deduction or a combination of these payment types. For more information on purchasing service.

Your lump-sum purchase must be completed while you are actively employed and no later than your last day of work.

1. Details about the Member: Marital status, citizenship, place of residency

2. "Guidance" boxes to provide additional information throughout the application experience

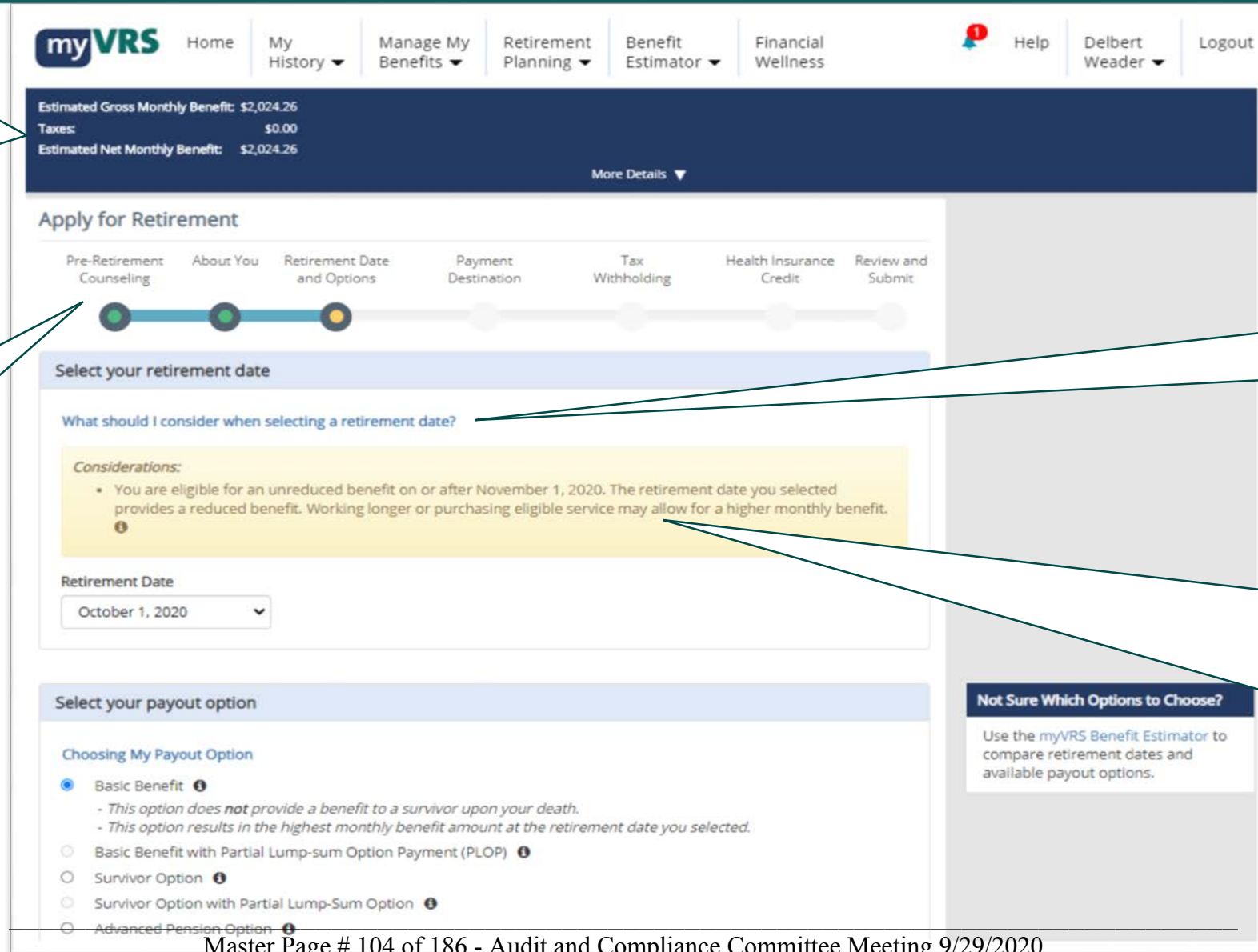
# Retirement Date and Payout Page

1. Dynamic benefit estimator fixed at the top of the screen updates based on member answers

2. Progress Bar indicates where the Member is in the application process

3. Embedded education throughout the process helps ensure optimal outcomes

4. Targeted messaging helps Members make informed retirement decisions. This example provides the Member a notification that they are eligible for an “unreduced” retirement if they wait one month (e.g., Nov. 1 2020) to retire.



The screenshot shows the myVRS interface for the Retirement Date and Payout page. At the top, there is a navigation bar with links for Home, My History, Manage My Benefits, Retirement Planning, Benefit Estimator, Financial Wellness, Help, Delbert Weader, and Logout. Below the navigation bar, a summary box displays the following information:

Estimated Gross Monthly Benefit:	\$2,024.26
Taxes:	\$0.00
Estimated Net Monthly Benefit:	\$2,024.26

A "More Details" link is available below this summary. The main content area is titled "Apply for Retirement" and features a progress bar with seven steps: Pre-Retirement Counseling, About You, Retirement Date and Options, Payment Destination, Tax Withholding, Health Insurance Credit, and Review and Submit. The "Retirement Date and Options" step is currently active. Below the progress bar, the "Select your retirement date" section asks, "What should I consider when selecting a retirement date?" and provides a "Considerations" box with the following text:

**Considerations:**

- You are eligible for an unreduced benefit on or after November 1, 2020. The retirement date you selected provides a reduced benefit. Working longer or purchasing eligible service may allow for a higher monthly benefit.

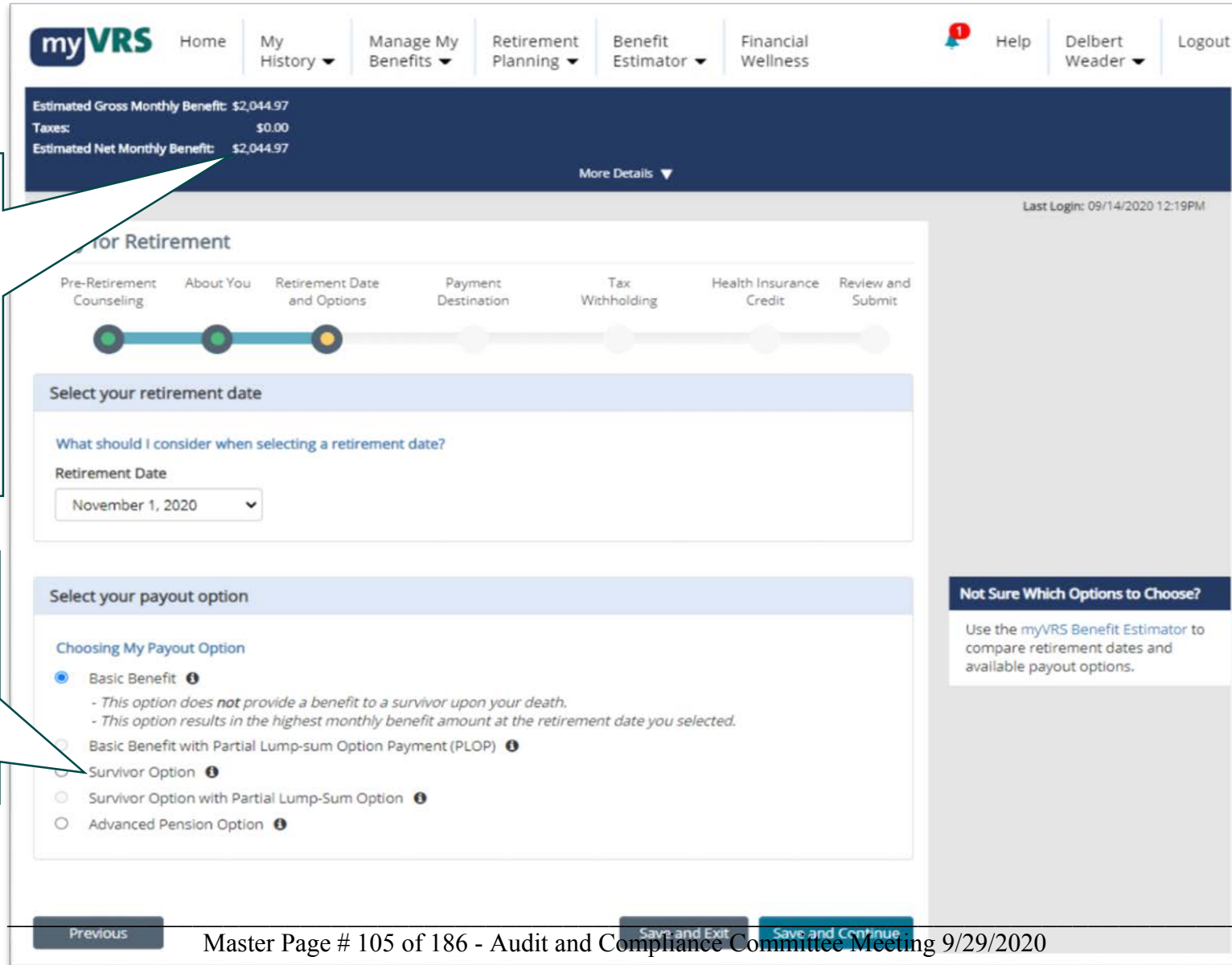
A "Retirement Date" dropdown menu is set to "October 1, 2020". Below this, the "Select your payout option" section is titled "Choosing My Payout Option" and lists several options:

- Basic Benefit
  - This option does **not** provide a benefit to a survivor upon your death.
  - This option results in the highest monthly benefit amount at the retirement date you selected.
- Basic Benefit with Partial Lump-sum Option Payment (PLOP)
- Survivor Option
- Survivor Option with Partial Lump-Sum Option
- Advanced Pension Option

A callout box titled "Not Sure Which Options to Choose?" provides a notification: "Use the myVRS Benefit Estimator to compare retirement dates and available payout options."



# Retirement Date and Payout Page Cont...



The screenshot shows the myVRS website interface. At the top, there is a navigation bar with links for Home, My History, Manage My Benefits, Retirement Planning, Benefit Estimator, and Financial Wellness. A user profile for Delbert Weader is visible in the top right corner. Below the navigation bar, a summary box displays the following information:

Estimated Gross Monthly Benefit:	\$2,044.97
Taxes:	\$0.00
Estimated Net Monthly Benefit:	\$2,044.97

Below this summary, a progress bar indicates the current step in the retirement process: Pre-Retirement Counseling, About You, Retirement Date and Options (highlighted), Payment Destination, Tax Withholding, Health Insurance Credit, and Review and Submit. The main content area is titled "Select your retirement date" and includes a dropdown menu for "Retirement Date" set to "November 1, 2020". Below this, there is a section for "Select your payout option" with several radio button options. A sidebar on the right contains a "Not Sure Which Options to Choose?" section with a link to the myVRS Benefit Estimator.

1. Estimated Monthly Benefit amount increased when this Member changed from the October 1, 2020 (reduced retirement) to the November 1, 2020 (unreduced) retirement date

2. If Survivor Option is selected we use a third-party data source to validate date of birth – birth certificate no longer required

# Payment Destination

**myVRS** Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$0.00  
Estimated Net Monthly Benefit: \$2,044.97  
[More Details](#)

[Print Page](#)

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options **Payment Destination** Tax Withholding Health Insurance Credit Review and Submit

#### Receiving Your Benefit Payments

Your benefit payment is deposited on the first day of each month into the account you designate. Each payment is for the preceding month. Example: If you retired July 1, your first payment will be August 1. If the first of the month falls on a holiday or weekend, your benefit is deposited on the last business day of the preceding month.

#### Enter the account details for your monthly benefit deposit

Your monthly benefit will be deposited into the account you identify below.

**Account Type**

Checking  
 Savings

**Routing Number**

**Account Number**

**Confirm Account Number**

**Direct Deposit Certification:**  
I hereby authorize VRS to deposit my monthly retirement benefit payment directly to my account at the financial institution designated in this application. I agree to provide written notification to VRS within 30 days of any changes to this information so that my monthly retirement benefit may be properly and timely distributed. I also authorize VRS to make adjustments to my account to correct any credit entries made in error.

**Bank Information Diagram:**  
A diagram of a check with fields for BANK NAME, ADDRESS, CITY, STATE, ZIP, and DOLLARS. Below the check, a red circle highlights the MICR line: @0 1234567890 1234567890 1234. Labels below the line identify: Bank Routing Number (1234567890), Bank Account Number (1234567890), and Check Number (123).

Members enter bank account in which they would like to receive their monthly benefit payments

# Payment Destination Cont...

myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$0.00  
Estimated Net Monthly Benefit: \$2,044.97

Print Page

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options **Payment Destination** Tax Withholding Health Insurance Credit Review and Submit

#### Receiving Your Benefit Payments

Your benefit payment is deposited on the first day of each month into the account you designate. Each payment is for the preceding month. Example: If you retired July 1, your first payment will be August 1. If the first of the month falls on a holiday or weekend, your benefit is deposited on the last business day of the preceding month.

#### Enter the account details for your monthly benefit deposit

Your monthly benefit will be deposited into the account you identify below.

Account Type  
 Checking  
 Savings

Routing Number  
\*\*\*\*\*

Financial Institution Name  
FEDERAL RESERVE BANK

Account Number  
\*\*\*\*\*

Confirm Account Number  
\*\*\*\*\*

Direct Deposit Certification:  
I hereby authorize VRS to deposit my monthly retirement benefit payment directly to my account at the financial institution designated in this application. I agree to provide written notification to VRS within 30 days of any changes to this information so that my monthly retirement benefit may be properly and timely distributed. I also authorize VRS to make adjustments to my account to correct any credit entries made in error.

Previous Master Page # 107 of 186 - Audit and Compliance Committee Meeting 9/29/2020

1. Financial Institution automatically appears upon entry of a confirmed routing number

2. Account Number is masked once Member clicks out of field. Member is required to enter Account Number twice.

# Tax Withholdings Page Cont...

myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$637.67  
Estimated Net Monthly Benefit: \$1,407.30  
More Details

Print Page Last Login: 09/15/2020 4:48AM

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options Payment Destination Tax Withholding Health Insurance Credit Review and Submit

#### Request for Income Tax Withholding

You are responsible for paying federal and state income taxes in retirement. If you do not select otherwise, VRS is required to withhold federal income tax based on the rate for a married individual claiming three allowances and state income tax based on the rate for zero exemptions. You can make adjustments to your withholding selections below.

The withholding selections you make will reduce the amount of tax you pay when you submit your annual tax return.

##### Select your federal tax withholding elections.

Withholding Taxes Yes	Marital Status Married
Personal Allowances 2	Additional Amount \$ 150

##### Select your Virginia tax withholding elections.

Withholding Taxes Yes	Age and Blindness Exemptions 0
Personal Exemptions 2	Additional Amount \$ 00.00

Previous Save and Exit Save and Continue

Federal and State Tax Withholdings information entered in the application

#### Need help calculating exemptions?

For information about federal income tax withholding, refer to the Internal Revenue Service (IRS) Form W-4P.

For information about Virginia income tax withholding, refer to the Virginia Department of Taxation Form VA-4P.

#### Taxes in other states

VRS does not withhold taxes for states other than Virginia. If you live outside Virginia, contact your state's taxation agency for information on state income taxes.

# Health Insurance Credit Page

myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$637.67  
Estimated Net Monthly Benefit: \$1,407.30  
More Details

Print Page Last Login: 09/15/2020 4:48AM

### Apply for Retirement

Pre-Retirement Counseling About You Retirement Date and Options Payment Destination Tax Withholding Health Insurance Credit Review and Submit

#### Eligibility for state health insurance

Check with your employer's human resource department for any employer-provided insurance options.

#### Eligibility for health insurance credit

You are eligible for a health insurance credit up to \$104.00 per month as a reimbursement to assist with the cost of your health insurance premiums. The credit is a dollar amount set by the General Assembly for each year of service and is added to your monthly retirement benefit. It ends upon your death and cannot exceed the amount of your individual health insurance premium. If VRS is deducting your health insurance premiums on your behalf, you do not have to apply for the health insurance credit unless you have additional health insurance premiums not being deducted by VRS.

Health plans eligible for health insurance credit assistance include individual health plans; coverage as a dependent on a spouse's plan; employer-sponsored health plans, including the Commonwealth of Virginia Health Benefits Program; Medicare Part B; and dental, vision and prescription drug plans including Medicare Part D. Other types of plans for specific conditions or coverage are not eligible.

I want to provide my health insurance information now.  
 I will provide the health insurance information at a later time.

**Warning:** You did not enter health insurance premium information. You will not receive the health insurance credit until you complete the VRS-45 requesting reimbursement for eligible premiums you pay.

Previous Save and Exit Save and Continue

Members can choose to enter Health Insurance Credit information in the retirement application or wait until a later time

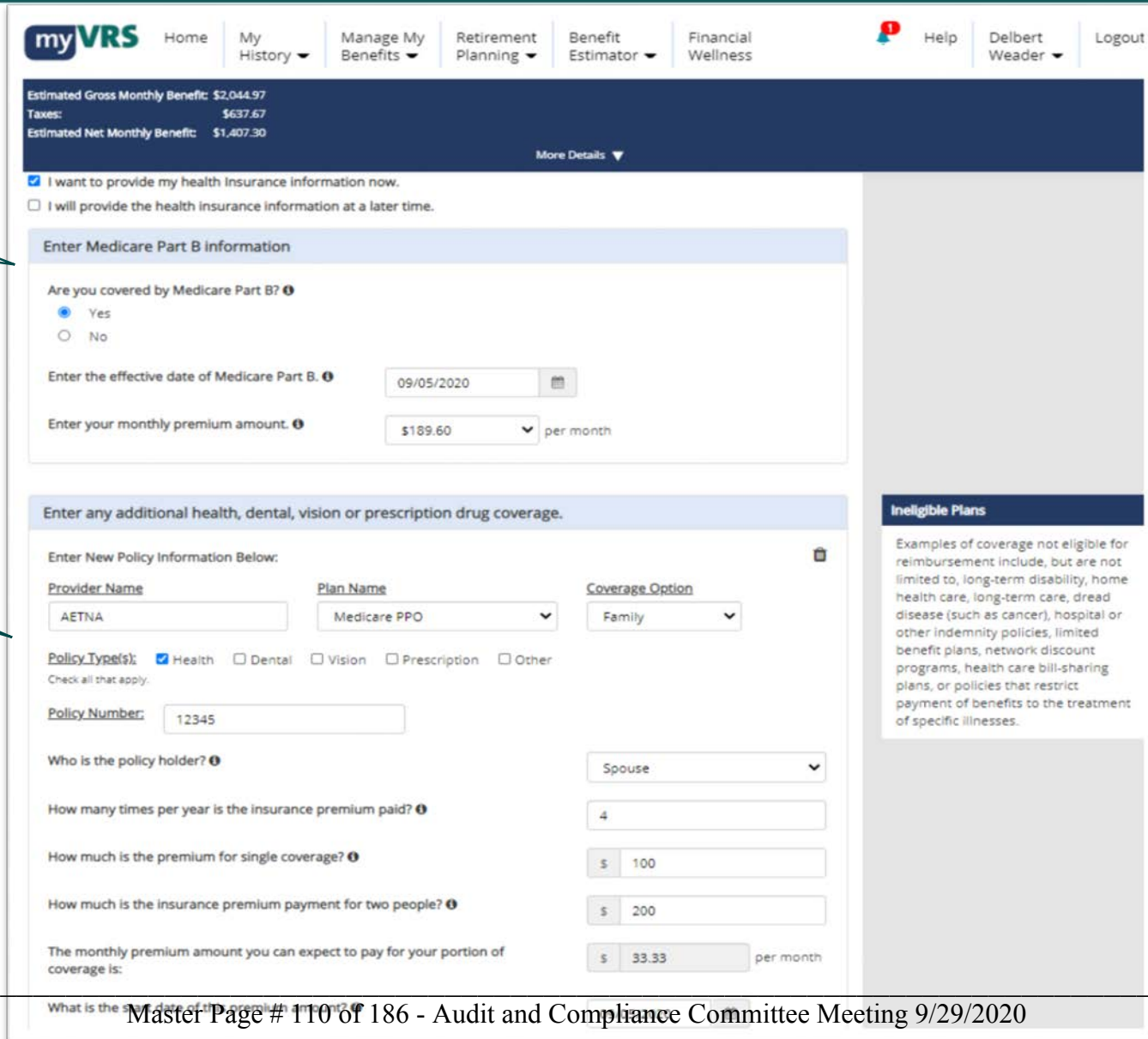
#### Report Coverage Changes

Be sure to report any plan changes, increases or decreases in premiums, or cancellations of health insurance to VRS. You can report coverage changes to VRS at any time by completing a Request for Health Insurance Credit (VRS-45).

# Health Insurance Credit Page Cont...

1. Members can enter Medicare Part B information here

2. Members can enter other Health Policy information here

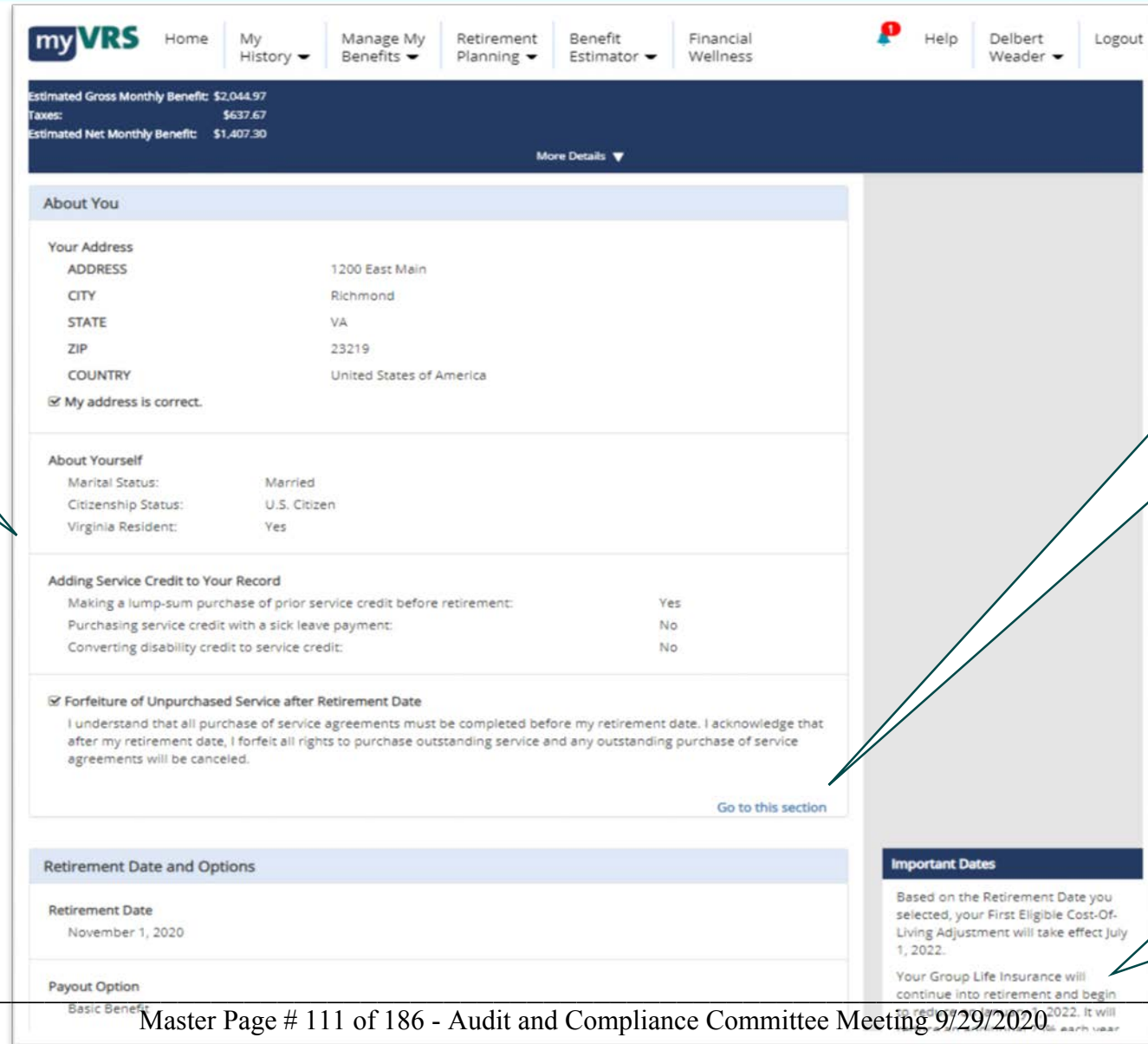


The screenshot shows the 'myVRS' interface for entering health insurance information. At the top, there are navigation tabs: Home, My History, Manage My Benefits, Retirement Planning, Benefit Estimator, and Financial Wellness. A user profile for 'Delbert Weader' is visible. The main content area is divided into sections:

- Summary:** Estimated Gross Monthly Benefit: \$2,044.97; Taxes: \$637.67; Estimated Net Monthly Benefit: \$1,407.30.
- Options:**  I want to provide my health insurance information now.  I will provide the health insurance information at a later time.
- Enter Medicare Part B Information:**
  - Are you covered by Medicare Part B?  Yes  No
  - Enter the effective date of Medicare Part B: 09/05/2020
  - Enter your monthly premium amount: \$189.60 per month
- Enter any additional health, dental, vision or prescription drug coverage:**
  - Enter New Policy Information Below:
    - Provider Name: AETNA
    - Plan Name: Medicare PPO
    - Coverage Option: Family
  - Policy Type(s):  Health  Dental  Vision  Prescription  Other
  - Policy Number: 12345
  - Who is the policy holder?: Spouse
  - How many times per year is the insurance premium paid?: 4
  - How much is the premium for single coverage?: \$ 100
  - How much is the insurance premium payment for two people?: \$ 200
  - The monthly premium amount you can expect to pay for your portion of coverage is: \$ 33.33 per month

On the right side, there is a section titled 'Ineligible Plans' with a list of examples of coverage not eligible for reimbursement.

# Review and Submit Page



myVRS Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$637.67  
Estimated Net Monthly Benefit: \$1,407.30

More Details ▼

### About You

Your Address  
ADDRESS: 1200 East Main  
CITY: Richmond  
STATE: VA  
ZIP: 23219  
COUNTRY: United States of America

My address is correct.

### About Yourself

Marital Status: Married  
Citizenship Status: U.S. Citizen  
Virginia Resident: Yes

### Adding Service Credit to Your Record

Making a lump-sum purchase of prior service credit before retirement: Yes  
Purchasing service credit with a sick leave payment: No  
Converting disability credit to service credit: No

Forfeiture of Unpurchased Service after Retirement Date  
I understand that all purchase of service agreements must be completed before my retirement date. I acknowledge that after my retirement date, I forfeit all rights to purchase outstanding service and any outstanding purchase of service agreements will be canceled.

[Go to this section](#)

### Retirement Date and Options

Retirement Date: November 1, 2020

Payout Option: Basic Benefit

### Important Dates

Based on the Retirement Date you selected, your First Eligible Cost-Of-Living Adjustment will take effect July 1, 2022.

Your Group Life Insurance will continue into retirement and begin to reduce your monthly benefit starting July 1, 2022. It will be reduced by 1% each year.

1. All information from each page is displayed on the "Review and Submit" page

2. Members can navigate back to any page if they find an error prior to submission via the "Go to this section" link within each section

3. "Guidance" box displays important dates about upcoming Cost of Living Adjustments and Life Insurance reductions

# Review and Submit Cont...

**myVRS** Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness Help Delbert Weader Logout

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$637.67  
Estimated Net Monthly Benefit: \$1,407.30  
[More Details](#)

### Payment Destination

**Monthly Benefit Deposit Location**

Financial Institution Name:	FEDERAL RESERVE BANK
Account Type:	Checking
Routing Number:	*****
Account Number:	*****

**Direct Deposit Certification**

I hereby authorize VRS to deposit my monthly retirement benefit payment directly to my account at the financial institution designated in this application. I agree to provide written notification to VRS within 30 days of any changes to this information so that my monthly retirement benefit may be properly and timely distributed. I also authorize VRS to make adjustments to my account to correct any credit entries made in error.

[Go to this section](#)

### Tax Withholdings

**Federal Tax Withholding Elections**

Withholding Taxes:	Yes
Marital Status:	Married
Personal Exemptions:	2
Additional Amount:	\$150.00

**Virginia Tax Withholding Elections**

Withholding Taxes:	Yes
Age/Blind Exemptions:	0
Personal Exemptions:	2
Additional Amount:	\$0.00

[Go to this section](#)

### Health Insurance Credit

You are eligible for a health insurance credit up to: \$



# Review and Submit Slide Cont...

**myVRS** Home My History Manage My Benefits Retirement Planning Benefit Estimator Financial Wellness

Estimated Gross Monthly Benefit: \$2,044.97  
Taxes: \$637.67  
Estimated Net Monthly Benefit: \$1,407.30  
[More Details](#)

**Additional health, dental, vision or prescription drug insurance policies**

Provider Name: AETNA  
Plan Name: Medicare PPO  
Coverage Option: Family  
Policy Type(s):  Health  Dental  Vision  Prescription  Other  
Policy Number: 12345  
Amount paid for retiree's portion of coverage: \$33.33 per month  
Effective date of this premium amount: September 1, 2020  
[Go to this section](#)

**Member Certification:**  
I hereby certify that: 1) I have provided true and accurate information in this application and I understand that any willful falsification of facts presented may result in prosecution as provided by law; 2) I will receive an electronic confirmation of my elections, but I may also request and receive a paper copy of the confirmation of my elections at no charge; 3) I have read and understand the service retirement information in the Handbook for Members; 4) I will terminate all employment with VRS employers prior to my retirement; 5) I have no written or unwritten, formal or informal agreement to return to employment with my current employer in any position following my retirement date; 6) I will not return to non-covered employment with my current employer following my retirement date for at least one full calendar month during which I would normally work; and 7) I understand if I return to covered employment under a retirement plan administered by VRS that my benefits will cease.  
Additionally, I agree that, in the event that VRS pays retirement benefits in excess of those to which I am entitled, I or my estate will repay the excess to VRS. By checking this box, I hereby assign to VRS any VRS group life insurance benefits that may be payable as a result of my death to secure repayment of any such retirement benefit overpayment.

**Employer Notification:**  
I understand that after I submit my application for retirement, VRS will notify my employer of my intent to retire. This notification may contain information about my elections to purchase or convert service, retirement date, payout options and/or health insurance credit information.

**Health Insurance Certification:**  
I understand that the benefit estimate above does not include health insurance costs and that I should check with my employer's human resource department for information on any employer-provided insurance options.

**Health Insurance Credit Certification:**  
I understand that I am eligible for a health insurance credit up to \$104.00 per month to assist with the cost of my health insurance premiums. I certify that I have reviewed the [health insurance credit information on the VRS website](#) and understand that I may have to complete the [Request for Health Insurance Credit form](#) to receive this benefit.

[Previous](#) [Save and Exit](#) [Submit Application to VRS](#)

1. All Member certifications must be completed prior to submitting application

2. Submit Application
- Done!
  - No paper
  - Check status
  - Email when Accepted as submitted



# Modernization Program Phase 4

*Internal Audit's Quarterly Review  
As of September 10, 2020*

THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.



# Phase 4's Scope

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- To decommission the Retirement Information Management System (RIMS) by converting business functionality in RIMS over into VNAV.
- To implement a new online customer portal for members and retirees.



# Phase Scope Changes

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## This Quarter

- *None.*

## Previous Scope Changes

- *Quarterly Report as of August 27, 2018 (reduction)*
  - Interactive Voice Response (IVR) Self-Service Replacement removal from phase scope.
- *Quarterly Report as of May 1, 2018 (reduction)*
  - Removal of Disability Retirement Case Management Functions. Case Management Functions will be handled by the new Medical Board vendor
- *Quarterly Report as of August 1, 2017 (increase)*
  - Incorporation of 3 individual projects under Phase 4 scope for resource efficiencies.
    - ORPHE/ORPPA
    - Financial Education Resources within myVRS Portal
    - Retiree Portal Payment and Health Insurance Maintenance
- *Quarterly Report as of February 1, 2016 (increase)*
  - Addition of Online Assistance Tool for the Customer Contact Center within CSS #1 (Member Portal)

# Observations

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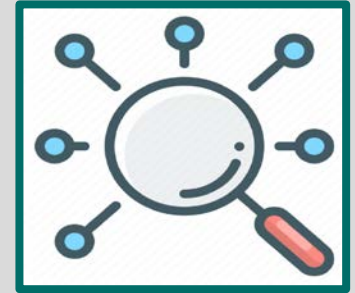


## Online Retirements

- Implementation of online retirement functionality is a leading-edge mechanism in the pension industry.
- Based on the service provided, it is inherently high risk.
- Appropriate business expertise has been incorporated into the development of this functionality.
- We support and encourage VRS' continued cautious approach through implementation and afterwards.

# Observations

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## Concurrent Projects

- VRS has other significant projects occurring which could compete for necessary resources.
- External entities and contractual agreements are driving these deadlines which make them less flexible compared to Phase 4.

*Cardinal HCM  
General Ledger Replacement  
Data Center Transition*

- Management of resources has been and must continue to be strategic and tactical to ensure the final milestone is completed on schedule without delay or impact.

# Phase Schedule

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- Development and testing of Online Retirements functionality is progressing towards a planned completion by the end of the calendar year 2020.
- Specific launch dates will be solidified and presented to the Committee at a future date.
- At this time, we are in agreement with management's representation of current Phase 4 status and progress.

# Phase Budget

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- We are in agreement with Phase 4 expenditures to date as represented in management's presentation.
- At this time, we believe Phase 4 is on budget to complete the outstanding functionality and close out Phase 4.





# Methodology

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## Purpose

- To provide an objective assessment of the Modernization Program Phase 4's progress, free from influence, guidance and control of the development effort.
- To provide validation of the accuracy of management's quarterly status presentation.

# Methodology continued...

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## **Process**

Gain an understanding of the purpose and progress of Phase 4 through:

- Review of the Phase 4 Microsoft SharePoint site or document management repository (applicable release documents)
- Interview of the Modernization Program Manager and other relevant personnel
- Attendance at ESC and other relevant meetings

## **Approach and Timing**

- Focus on specific areas active during the period of review
- Performed quarterly through the end of Phase 4

# Questions



# FY2020 Annual Progress Reports

## BACKGROUND

The Audit Recommendation Follow-Up System (ARFUS) is a reporting mechanism for monitoring the status of audit recommendations issued by Internal Audit, the Auditor of Public Accounts (APA) or other external entities. Internal Audit maintains the information recorded in ARFUS with the cooperation and assistance of management.

On a quarterly basis, Internal Audit requests and receives progress reports from management on outstanding recommendations, which describe the status of the actions taken in response to the recommendations. While compiled by Internal Audit, the information included in the quarterly summary reflects the representations of the responsible party and are not subject to verification by Internal Audit at that time. Recommendations represented as “implemented” remain in ARFUS until Internal Audit performs its review to obtain reasonable assurance that the essence of the recommendation has been implemented.

Annually, Internal Audit conducts a limited review on all recommendations represented as implemented to obtain assurance that management has in fact reasonably addressed these recommendations. Where reasonable implementation is confirmed, the recommendation is released from ARFUS and is no longer subject to monitoring by Internal Audit. Further, Internal Audit identifies the addition and removal of any audit recommendations issued by the APA within ARFUS based upon a review of APA reports.

The purpose of this report is to convey the results of our review regarding the audit recommendations represented as implemented as of June 30, 2020.

## RECOMMENDATION VALIDATION AND RELEASE FROM ARFUS

During fiscal year 2020, management represented one recommendation as implemented. Internal Audit reviewed this recommendation to validate that it was reasonably addressed. This review was not designed to test the operational effectiveness of the implemented controls. The testing of these controls will be considered within the scope of future audits. Our review found that the one recommendation has been sufficiently implemented and no longer warrants oversight. Accordingly, Internal Audit is releasing this recommendation from ARFUS. (One recommendation was released with comment as reflected in the “Status of Recommendations Represented as Implemented” summary found below.)

ARFUS Activity during FY2020			
ARFUS Components	Internal Audit	APA*	Total
Total Outstanding Recommendations as of June 30, 2019	4	–	4
Recommendations Added during FY2020	3	–	3
<i>Total Recommendations for FY2020 (available for remediation)</i>	7	–	7
<i>Informational: Recommendations Represented as Implemented during FY2020</i>	1	–	1
Represented Recommendation(s) tested and released by Internal Audit (see page 2)	(1)		(1)
Represented Recommendation(s) tested and released by APA (see page 4)		–	–
<b>Total Outstanding Recommendations as of June 30, 2020 (see pages 3-4)</b>	<b>6</b>	<b>–</b>	<b>6</b>

\* Recommendations issued by the APA are listed separately from the Internal Audit activity above, as the decision to issue or release such findings rests with their office.

## STATUS OF RECOMMENDATIONS REPRESENTED AS IMPLEMENTED

The table below reflects the status of each recommendation represented as implemented (with explanatory comments as appropriate). Please note that the “Audit # - Audit Name” has been hyperlinked to the applicable audit report and management response within Directors Desk.

Audit # - Audit Name	Recommendation Represented as Implemented	Management's Target Date	Completion Date	Audit Comments
<a href="#">Application Controls: AQM, Private i, and MUNIS Systems, No. 417</a> Report Date: 07/01/2018	Ensure Systems are in Full Compliance with the Commonwealth's Hosted Environment Standard	07/31/2019* <del>06/30/2019</del>	07/31/2019	<p style="text-align: center;"><b>Released with Comment</b></p> Management has satisfactorily completed the spirit of the recommendation and therefore the recommendation will be released.  However, opportunities exist to improve compliance by the Investment Department with the VRS IT Procurement Policy which supports VRS' compliance with the Commonwealth's Hosted Environment Standard. These opportunities are addressed in Audit Report #430, Investment Research.

\*The Director's Executive Committee approved revisions to the original target date as reflected in the table above.

## OUTSTANDING AUDIT RECOMMENDATIONS AS OF JUNE 30, 2020

The following is a list of outstanding recommendations remaining in ARFUS as of June 30, 2020. Please note that the "Audit # - Audit Name" has been hyperlinked to the applicable audit report and management response within Directors Desk.

Audit # - Audit Name	Recommendation	Report Date	Management's Target Date
<a href="#">367 - IT Client-Server</a>	Modify Procedures in Three Areas to Ensure Full Compliance with the VRS Security Standard	08/01/2016	12/31/2020* <del>12/31/2019</del> <del>07/01/2019</del> for Project 2  01/01/2018 for Project 1 (Project 1 is complete)
<a href="#">411 – Application Controls: VNAV and myVRS</a>	Evaluate VNAV’s Documented Security Procedures and Ensure Ongoing Monitoring of System Access Occurs	10/31/2017	12/31/2020* <del>12/31/2019</del> <del>07/01/2019</del>
<a href="#">412 – Hybrid Plan</a>	Improve the Expected versus Actual Contributions Reconciliation Review Process	11/01/2017	TBD (Part of Post-Phase 4 work. Revised Phase 4 schedule is still pending.)
<a href="#">425 – Review of the General Controls within the IT Client-Server Environment</a>	Enhance Management of Policy and Procedure Documents	08/01/2019	12/31/2020
	Update Retention and Disposition Schedules to align with Library of Virginia Standards as well as VRS’ Actual Practice		06/30/2021
<a href="#">429 – Conformance with VITA’s Security Program</a>	Address the ISO Relationship to the VRS Director	02/27/2020	06/30/2021

\*The Director’s Executive Committee approved revisions to the original target date as reflected in the table above.

## RECOMMENDATIONS ISSUED BY THE APA

Recommendations issued and released by the APA are captured based on the results reflected in their reports and are included below for informational purposes. Please note that the "Audit Name" has been hyperlinked to the applicable audit report on the APA's website.

Audit Name	Recommendation	Represented as Implemented? (Y/N)	Management's Target Date	Completion Date	Audit Comments
-	-	-	-	-	-



## BACKGROUND

The Audit Recommendation Follow-Up System (ARFUS) is a reporting mechanism for monitoring the status of audit recommendations issued by Internal Audit, the Auditor of Public Accounts (APA) or other external entities. Internal Audit maintains the information recorded in ARFUS with the cooperation and assistance of management.

This specific report reflects the status of Internal Audit related recommendations issued as a result of our external quality assurance review performed once every five years, most recently completed in the fall of 2019 and reported to the Committee on December 12, 2019.

Of note, while recommendations were added to ARFUS as a result of this review, they represented opportunities to enhance existing processes rather than a reflection of any deficiencies relative to the *Standards* issued by the Institute of Internal Auditors.

On a quarterly basis, Internal Audit staff requests and the Internal Audit Director provides progress reports on such outstanding recommendations, which describe the status of the actions taken in response to the recommendations. The information included in the quarterly summary reflects the representations of the Internal Audit Director and are not subject to verification by Internal Audit staff at that time. Recommendations represented as “implemented” remain in ARFUS until Internal Audit performs its review to obtain reasonable assurance that the essence of the recommendation has been implemented.

Annually, Internal Audit conducts a limited review on all recommendations represented as implemented. Where reasonable implementation is confirmed, the recommendation is released from ARFUS and is no longer subject to monitoring by Internal Audit.

The purpose of this report is to convey the results of our review regarding the recommendations from the external quality assurance review represented as implemented as of June 30, 2020.

## RECOMMENDATION VALIDATION AND RELEASE FROM ARFUS

During fiscal year 2020, the Internal Audit Director represented three recommendations as implemented. Internal Audit reviewed these recommendations to validate that each recommendation was reasonably addressed. Our review found that all three recommendations have been sufficiently implemented and no longer warrant monitoring. Accordingly, Internal Audit is releasing these recommendations from ARFUS.

ARFUS Components	Total
Total Outstanding Recommendations as of June 30, 2019	0
Recommendations Added during FY2020	4
<i>Total Recommendations for FY2020 (available for remediation)</i>	4
<i>Informational: Recommendations Represented as Implemented during FY2020</i>	3
Represented Recommendation(s) tested and released by Internal Audit (see page 2)	(3)
<b>Total Outstanding Recommendations as of June 30, 2020 (see page 2)</b>	<b>1</b>

## STATUS OF RECOMMENDATIONS REPRESENTED AS IMPLEMENTED

The table below reflects the status of each recommendation represented as implemented (with explanatory comments as appropriate). Please note that the “Report Name” has been hyperlinked to the applicable report within Directors Desk.

Report Name	Recommendation Represented as Implemented	Internal Audit's Target Date	Completion Date	Audit Comments
<a href="#">VRS External Quality Assurance Review</a> Report Date: 10/31/2019	Consider meeting with the VRS Director on observations before the first draft of an audit report is created.	n/a*	12/31/2019	<b>Released without Comment</b> Fully Implemented
	Consider communicating less significant issues in a memo to management rather than in the audit report.	n/a*	12/31/2019	<b>Released without Comment</b> Fully Implemented
	Consider adopting a Stop-and-Go approach to audit project scheduling and management.	06/30/2020	06/30/2020	<b>Released without Comment</b> Fully Implemented

\* Internal Audit's Target Date is listed as “n/a” (not applicable) where the recommendation was added to ARFUS and represented as implemented within the same quarter.

## OUTSTANDING RECOMMENDATIONS AS OF JUNE 30, 2020

The following is a list of outstanding recommendations remaining in ARFUS as of June 30, 2020. Please note that the “Report Name” has been hyperlinked to the applicable report within Directors Desk.

Report Name	Recommendation	Report Date	Internal Audit's Target Date
<a href="#">VRS External Quality Assurance Review</a>	Consider establishing a joint data analytics initiative with IT to enhance IAD's capability.	10/31/2019	06/30/2021

# Internal Audit FY2020 Annual Report As of June 30, 2020

A look back and a look forward as the Internal Audit Department works to support the strategic goals and needs of this dynamic organization and to ensure appropriate avenues for oversight are provided to the Board of Trustees.

The Year in Review .....	1-3
A Look Forward .....	4-5



# The Year in Review: Living the VRS Core Values in FY2020

FY2020 challenged us to learn from the past, live agilely in the present and plan for the future. As a part of the VRS team, we always work diligently to be *agile*, demonstrating our *teamwork* and pivoting quickly as the world around us does the same. Events within FY2020 and as a result of the global pandemic created many opportunities for the Internal Audit team to demonstrate and benefit from VRS' Core Values.

## External Quality Assurance Review Results

The foundation of VRS' values, acting with *integrity* and *accountability*, was exemplified in the completion of our quinquennial External Quality Assurance Review this past fall. The Institute of Internal Auditors (IIA) mandates this process be performed once every five years for all internal audit functions desiring to acknowledge conformance with *the Standards* to ensure the *integrity* of the profession and provide *accountability* in the execution of its work.

As shared at the December 10, 2019 Audit and Compliance Committee Meeting, our department was awarded the highest assurance possible as a result of this review. While we received feedback on ways we could enhance operational aspects of our mature audit function, our processes and practices

were noted as generally conforming with *the Standards*. Understated words to reflect the significant efforts of the Internal Audit team members living the values of *integrity* and *accountability* on a daily basis.



Association of Public Pension Fund Auditors  
Spring Professional Development Conference  
(Offering up to 20 CPEs)

Washington, D.C.  
May 3 – 6, 2020

Embassy Suites by Hilton, Washington D.C. Convention Center  
900 10th Street NW, Washington, D.C. 20001  
Tel: (202) 739-2001



## Supporting the Profession

As noted in last year's Annual Report, the Internal Audit team had committed to supporting the *integrity* of the profession in the spring of 2020 through the sponsorship of a professional development conference on behalf of the Association of Public Pension Fund Auditors (APPFA). The creativity, dedication and *agility* with which the team focused on identifying speakers, activities and tools to enhance the conference experience was significant and an exciting effort of which to be a part. While the global pandemic ultimately led to the cancellation of the conference, the team's efforts positioned APPFA to be in a better place to serve the needs of its membership for the future by identifying and vetting a new website provider and a conference experience application as well as developing a new pool of speakers for future training initiatives.

## VRS Core Values

### ACT WITH **INTEGRITY**

As we perform our role and represent VRS.

### DISPLAY **TEAMWORK**

As we create, plan and execute our work in a trusting and caring way.

### DEMONSTRATE **ACCOUNTABILITY**

In our words, actions and decisions as we work and commit to our Vision.

### PERFORM WITH **AGILITY**

As we respond to change.

## Supporting VRS

We continue to demonstrate our dedication to *teamwork* and the broader VRS team through our active support of and involvement with VRS agency initiatives such as the VRS Commonwealth of Virginia Campaign, New Hire Mentoring Program, Diversity Program and Enterprise Risk Management/Enterprise Performance Management planning activities.

As we completed our audit projects, we sought to share process improvement opportunities within the relevant business area using the tools and approaches executed within an audit. Efforts such as these help to improve the *integrity* of VRS and create new avenues for *accountability* over VRS' operations.

## Enhancing our Internal Capabilities

We continued to concentrate on enhancing our data analysis and information technology skills to support our engagements. We remained forward focused to ensure our ongoing *agility* by cross training team members in key tools used by the Internal Audit Department to access VRS' data. Further, a significant portion of our professional development and training was geared towards information security-related topics. This type of training helps, to ensure we are properly positioned to support the growth of information technology tools in VRS's day to day operations and the reliance of the organization on information technology-related controls to safeguard the integrity of VRS' operations in the delivery of benefits.

**Internal Audit  
Proposed  
FY2021-FY2024  
Long-Range Audit Plan**

Proposed Plan	1-3
Explanatory Notes and Acronyms	4

Internal Audit Annual Report as of June 30, 2020

## Supporting our Community

As a team, annually we like to identify different ways we can support the broader community.

This past year that led us to volunteer at the Ronald McDonald House of Richmond.



**Ronald McDonald  
House Charities®**  
Richmond

We enjoyed preparing a meal for the families aided by the Ronald McDonald House Charities and learning about the many amazing things they do to provide a "home-away-from-home" for families with children receiving care at local area hospitals.

## Planning for the Future

This past spring the global pandemic provided us with an opportunity to demonstrate *agility*, *teamwork*, *accountability* and *integrity* by pausing certain audit projects and focusing our efforts on planning for the future of the Internal Audit Department, while the organization did the same to position us all to operate in a remote environment while ensuring the organizational *integrity* of executing VRS' mission.

### *Long-Range Audit Plan Input*

The entire team spent time evaluating the potential audit universe for the upcoming long-range audit plan, providing valuable input regarding areas of focus, validating potential audit objectives and ensuring we conformed with the Commonwealth's Information Technology Audit Standards. Through our *teamwork*, we made the potential audit universe more comprehensive while also addressing its continued alignment with organizational and operational goals and initiatives.

## Development of Audit Team Administration and Audit SharePoint Sites

We also leveraged the available time to realize a long-term departmental goal of creating a team SharePoint site to support the administration of the audit function and our audit projects in a more streamlined and visible manner. In creating this site, we had extensive discussions around our document retention practices and operational needs. Each member of the team has responsibility for various administrative duties in addition to their audit execution responsibilities. Decisions were made in the design and implementation of these sites to improve the efficiency of staff in their work. Long-term, development of this site will enhance our *accountability* and *agility* in the execution of our work.

## Long-Range and Annual Audit Plans Progress

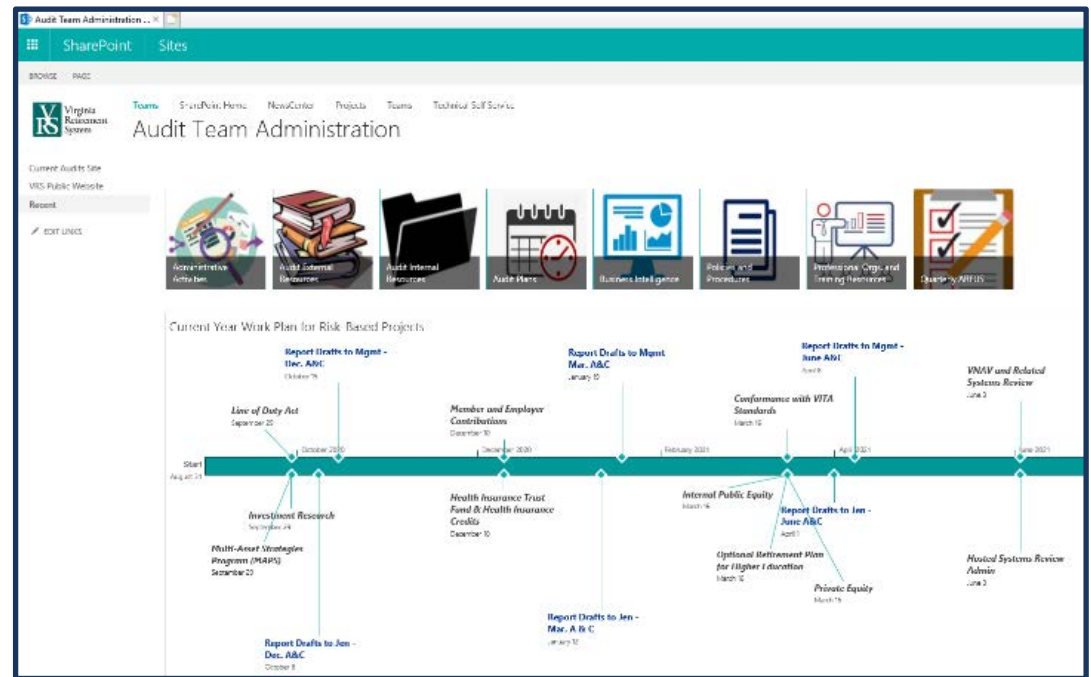
In June 2016, the Committee approved the FY2017-FY2020 Long-Range Audit Plan to guide the efforts of the department. FY2020 was the final year in that four-year plan. As presented in the Annual Audit Plan Progress Report as of June 30, 2020, we successfully initiated and completed the majority of projects as presented in the FY2019 Annual Audit Plan as modified, as of December 31, 2019.

The results of our work during FY2020 were, where appropriate, set forth in audit reports which were written to be informative and educational regarding the area under audit, while providing insights into key risks as well as opportunities for operational enhancements by the organization.

We also provided routine quarterly reports on the Modernization Program and Fraud Hotline cases as well as a separate annual status report on the outstanding audit recommendations. In addition, during the Committee's December 2019 meeting, we provided a summary of the results of our Quality Assurance and Improvement Program.

## Ensuring a Culture of Independence and Ethical Behavior

We ensured we maintained the necessary independence to issue objective analysis and evaluations of the subject matters we reviewed. We considered our independence with the assignment of each project and formally acknowledge our independence through signing the department's Conflict of Interest Statement annually. All staff certified there were no situations that might create actual or perceived bias within their assignments. The importance of achieving *integrity* and *accountability* in our day to day activities was communicated by encouraging a culture of ethical behavior. Professional certifications held by the Internal Audit Department team have specific requirements relative to Ethics including annual training expectations. We also participated in VRS' annual Code of Ethics and Conduct training and acknowledgement activities.



# A Look Forward: Living the VRS Core Values in FY2021

Included in the Committee meeting materials is our proposed FY2021-FY2024 Long-Range Audit Plan. It is designed to embody the *agility*, *teamwork*, *integrity*, and *accountability* necessary to realize an effective and efficient internal audit function and meet the value-add proposition envisioned by the Board of Trustees (Board) in creating such a function. The proposed plan will be approached with sufficient vision and flexibility to remain responsive to the Board, the Committee and VRS management and staff.

As we initiate the first year of the long-range audit plan, we will focus our efforts on bringing further maturity to our data analysis program and working with management to realize the organizational goals and objectives set forth in VRS' Strategic Plan, especially as they relate to Enterprise Risk Management and our ability to align our audit efforts to address those risks. Through the *teamwork* initiated by these activities, our ability to remain *agile* in responding to and providing assurance over key operational and organizational initiatives will be enhanced.

## Audit Staffing

A total of six audit professionals make up the department, including the Audit Director and five Principal Auditors with the following areas of concentration:

- Benefits, Operations and Quality Assurance;
- Business Intelligence;
- Governance and Program Administration;
- Information Technology, Security, Systems Development and Project Management; and,
- Investments and Operations.

In most cases, three or more professional designations are held by each member of the audit team. The variety of those designations is reflected in the chart to the right. We encourage the growth of team member skills and expertise. This past year, one team member obtained a new certification in risk management assurance and an additional team member obtained a certificate in COSO Enterprise Risk Management and we celebrate their success!

### **Obtaining and Maintaining Quality Audit Staff**

The quality of the work performed by the department depends on the knowledge, skills and abilities of its staff. Continuing professional education is required to maintain professional certifications and expertise, and staff remain accountable for ensuring they meet these expectations annually.

Given the complexity of VRS operations, the department does not employ entry-level auditors. Combined, the current team has over 90 years of experience in the auditing profession, with skill sets far beyond the accounting and financial reporting perspective traditionally found in audit, including: Finance, Information Technology, Computer Science, Business Intelligence and Project Management. We strive for new team members to possess similar experience and credentials.



## Audit Staff Qualifications

A brief summary of each current team member's qualifications is included below. We are appropriately staffed and qualified to meet the proposed FY2021 Annual Audit Plan, which is the first period of the proposed Long-Range Audit Plan.

<p><b>Matt Priestas</b></p> <p>Principal Auditor for Information Technology, Security, Systems Development and Project Management</p> <p>CISA, CIA, PMP, CRMA</p> <p>B.S. in Management Information Systems, East Carolina University</p> <p>Joined VRS in 2008, previously worked for the APA</p> <p>Newscenter SharePoint Site Administrator, APPFA liaison</p>	<p><b>Judy Bolt</b></p> <p>Principal Auditor for Benefits, Operations and Quality Assurance</p> <p>CPA, CIA, CFE, CISA</p> <p>B.S. in Accounting, Virginia Commonwealth University (VCU)</p> <p>Joined VRS in 2012, previously worked for the APA and Owens and Minor</p> <p>Lead for the Quality Assurance and Improvement Program</p>	<p><b>Josh Fox</b></p> <p>Principal Auditor for Investments and Operations</p> <p>CIA, CIDA, CFE</p> <p>B.S. in Finance and Management, Virginia Polytechnic Institute and State University (Virginia Tech)</p> <p>Joined VRS in 2014, previously worked for the APA</p> <p>Lead for Investments, training as business intelligence back-up</p>	<p><b>Krystal Groff</b></p> <p>Principal Auditor for Business Intelligence</p> <p>CIA</p> <p>B.S. in Computer Science, University of Mary Washington; M.S. in Nursing Informatics, Duke University</p> <p>Joined VRS in 2015, previously worked for the Federal Reserve Bank of Richmond, Capital One and Circuit City</p> <p>Experience with various technologies and programming languages including: SQL, Tableau, Ab Initio, UNIX and C</p>	<p><b>Kristy Scott</b></p> <p>Principal Auditor for Governance and Program Administration</p> <p>CPA, CISA, CIA</p> <p>B.B.A., Roanoke College; Post-Baccalaureate Certificate in Accounting, VCU; holds COSO Enterprise Risk Management Certificate</p> <p>Joined VRS in 2018, previously worked for the APA</p> <p>Team SharePoint Site Administrator, training as business intelligence back-up</p>	<p><b>Jennifer Schreck</b></p> <p>Internal Audit Director</p> <p>CPA, CISA, PMP</p> <p>B.S. in Accounting, College of William and Mary</p> <p>Joined VRS in 2015, previously worked for the APA</p> <p>Holds an Associates Certificate in Project Management and a Master's Certificate in IT Project Management</p>
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# Internal Audit FY 2020 Annual Audit Plan Progress Report

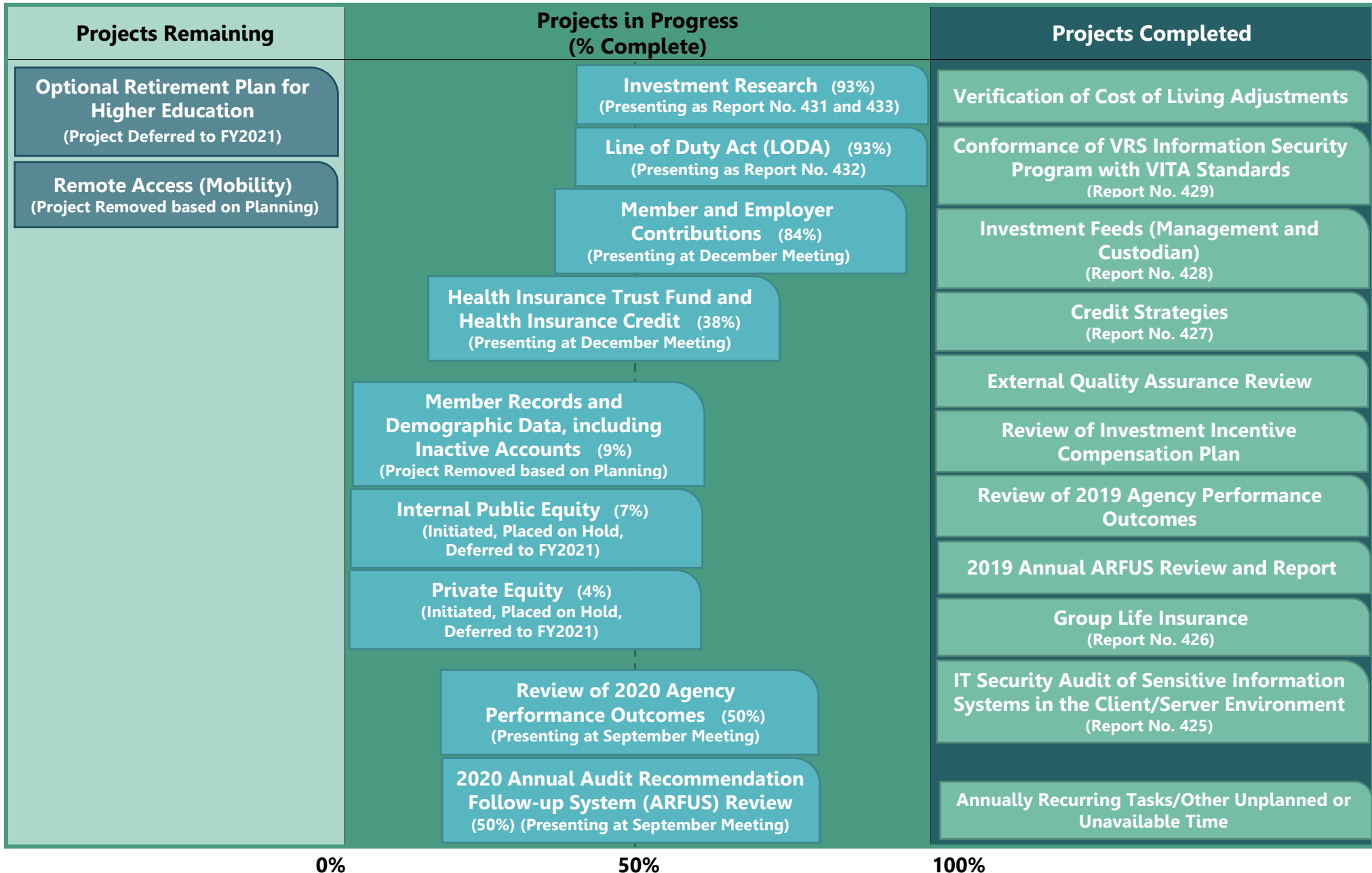
As of June 30, 2020



Progress Summary.....	1
Detailed Analysis.....	2-4
Explanatory Notes and Acronyms.....	5

# Fiscal Year 2020 Annual Audit Plan Progress Summary – as of June 30, 2020

(A detailed analysis follows)



All planned projects (as adjusted as of December 31, 2019) were successfully initiated during the work plan year.

**Fiscal Year 2020 - Annual Audit Plan Progress - Detailed Analysis**  
**Budget vs. Actual - as of June 30, 2020**

Auditable Area	Original Budgeted Hours	Total Actual Hours to Date	Estimated Remaining Hours to Carry Over	Actual or Estimate of Total Hours Needed	Estimated Variance Over/ (Under)
<b>RISK BASED PROJECTS</b>					
<b>CARRIED FORWARD FROM PRIOR YEAR</b>					
Group Life Insurance	200	175	-	175	(25)
Health Insurance Trust Fund and Health Insurance Credits <sup>(1)</sup>	200	245	-	245	45
Credit Strategies	200	277	-	277	77
Investment Fees (Management and Custodian)	600	682	-	682	82
IT Security Audit of Sensitive Information Systems in the Client/Server Environment	330	322	-	322	(8)
<b>BENEFITS AND OPERATIONS</b>					
Line of Duty Act (LODA) <sup>(2)</sup>	600	633	50	683	83
Member and Employer Contributions <sup>(3)</sup>	600	1014	200	1,214	614
Member Records and Demographic Data, including Inactive Accounts <sup>(4)</sup>	500	35	-	35	(465)
Optional Retirement Plan for Higher Education <sup>(5)</sup>	300	0	-	-	(300)
<b>INVESTMENTS</b>					
Internal Public Equity <sup>(5)</sup>	500	37	-	37	(463)
Investment Research <sup>(2)</sup>	600	703	100	803	203
Private Equity <sup>(5)</sup>	400	22	-	22	(378)
<b>TECHNOLOGY SERVICES</b>					
Remote Access (Mobility) <sup>(4)</sup>	250	45	-	45	(205)
<b>PRE-COMMITTED TIME</b>					
<b>REVIEWS (PROJECTS) PRIORITIZED OUTSIDE OF THE RISK ASSESSMENT PROCESS</b>					
<b>IA Identified Recurring Reviews</b>					
Conformance of VRS Information Security Program with VITA Standards	200	121	-	121	(79)
Modernization - Monitor/Consult on a Continuous Basis	125	246	-	246	121
Continuous Auditing Activities	500	349	-	349	(151)
Report on Fraud, Waste and Abuse Hotline Cases	100	14	-	14	(86)
Review of Investment Incentive Compensation Plan	50	65	-	65	15
Review Results of Agency Performance Outcomes (APOs) <sup>(6)</sup>	100	132	-	132	32
Verification of Cost of Living Adjustments (COLAs)	25	25	-	25	-

Auditable Area	Original Budgeted Hours	Total Actual Hours to Date	Estimated Remaining Hours to Carry Over	Actual or Estimate of Total Hours Needed	Estimated Variance Over/ (Under)
<b>PRE-COMMITTED TIME - Continued</b>					
<b>ANNUALLY RECURRING TASKS</b>					
<b>Fulfilling Activities Required by IIA Standards</b>					
Quality Assurance Improvement Program Monitoring & Reporting <sup>(6)</sup>	200	67	-	67	(133)
External Quality Assurance Review/Internal Assessment	200	330	-	330	130
Audit Plan Monitoring	100	103	-	103	3
Develop and Update Long-Range Plan and Corresponding Annual Audit Plan	150	558	-	558	408
Coordination and Consultation With APA	50	24	-	24	(26)
Quarterly ARFUS Monitoring	100	51	-	51	(49)
Annual ARFUS Review <sup>(6)</sup>	150	56	-	56	(94)
<b>Supporting Audit &amp; Compliance Committee</b>					
Review, Compilation and Publication of Meeting Materials	250	254	-	254	4
Attendance	80	53	-	53	(27)
Preparation of Meeting Minutes and Committee Report	70	72	-	72	2
<b>Risk Monitoring Activities</b>					
Attendance at Board Meetings and other Committee Meetings (including Board Retreat)	150	116	-	116	(34)
Attendance at Executive Team Meetings (DEC, Roadmap, C-suite)	120	106	-	106	(14)
Review of Independent Auditor's Reports on VRS Third Parties (SOC Reports)	50	8	-	8	(42)
Monitor and Review Professional Literature	80	66	-	66	(14)
Association of Public Pension Fund Auditors and Other Professional Organizations (IIA, ISACA, ACL/Tableau User Groups)	75	90	-	90	15
<b>Other Administrative Activities</b>					
Maintain Fiscal Budget, Department Files, SPCC Log and Recon; Make SPCC Purchases	100	61	-	61	(39)
Internal Audit Staff Meetings and Mentoring	250	402	-	402	152
External Reporting and Other Interactions (OSIG/VITA)	25	17	-	17	(8)
Administration of CPE	115	131	-	131	16
Performance Standards and Evaluations	60	39	-	39	(21)
Participation in VRS Events/Committees	120	177	-	177	57

Auditable Area	Original Budgeted Hours	Total Actual Hours to Date	Estimated Remaining Hours to Carry Over	Actual or Estimate of Total Hours Needed	Estimated Variance Over/ (Under)
<b>OTHER UNPLANNED OR UNAVAILABLE TIME</b>					
<b>Unplanned Hours <sup>(7)</sup></b>	1,105	1,812	-	1,812	707
<b>Unavailable Time</b>					
Continuing Professional Education (CPE)	300	420	-	420	120
Holidays	650	744	-	744	94
Annual Leave	750	919	-	919	169
Sick/Personal Leave; Volunteer Hours	480	446	-	446	(34)
<b>Other Resource Outages</b>	320	320	-	320	-
<b>TOTAL AVAILABLE HOURS <sup>(8)</sup></b>	<b>12,480</b>	<b>12,584</b>	<b>350</b>	<b>12,934</b>	<b>454</b>

# Fiscal Year 2020 - Annual Audit Plan Progress – Detailed Analysis

## Budget vs. Actual – as of June 30, 2020

### Explanatory Notes:

- (1) This project was originally planned to be carried over into the next fiscal year, as such it will be reflected as current project rather than a carryover project in the FY2021 Annual Plan and FY2021–FY2024 Long-Range Plan.
- (2) These projects are in their final phase and will be reported out at the September board meeting. As such they will be reflected as a carryover project in the FY2021 Annual Plan and FY2021–FY2024 Long-Range Plan.
- (3) Overages due to expanded scope and testing and additional efforts to enhance our data analytics capabilities.
- (4) Based on information learned during planning, these projects were removed as sufficient coverage will be provided through testwork performed by the external auditor.
- (5) These projects were initiated or scheduled to be initiated during FY2020, and then placed on hold to support competing organizational priorities at the onset of the global pandemic. Based on their risk ranking as a part of the development of the FY2021–FY2024 Long-Range Plan, they will be incorporated into the first year of the plan, and re-initiated.
- (6) These projects reflect annually recurring tasks which require testwork to be initiated in one audit plan year and the conclusion and reporting to occur in the next. The actual hours to date reflect time spent completing the FY2019 projects and initiating the FY2020 projects.
- (7) The unplanned hours reported reflect departmental items not explicitly planned for in our original budget, such as
  - (A) Administrative issues;
  - (B) VRS provided training;
  - (C) Internal Audit’s involvement in VRS’ Enterprise Risk Management and Enterprise Performance Management Initiative;
  - (D) Review and enhancement of departmental policies and procedures and supporting tools;
  - (E) Development of SharePoint capabilities to store audit documentation; and,
  - (F) Support for the May 2020 APPFA Spring Professional Development Conference, which we were scheduled to host on behalf of the Association of Public Pension Fund Auditors, but was ultimately cancelled as a result of the global pandemic.
- (8) The total available hours were budgeted based off the standard of 2,080 man hours per year, based on there being on average 260 weekdays per year. During FY2020, there were actually 262 weekdays, thereby increasing the actual hours worked over the budgeted hours. In addition, departmental staff take part in VRS’ flexible schedule program year round and depending on the timing of staff “flex-days” relative to the fiscal year additional hours may be worked.

### Acronyms (Not defined elsewhere):

ACL	Audit Command Language, audit software used to support data analysis and our examinations
APA	Auditor of Public Accounts
ARFUS	Audit Recommendation Follow-Up System
C-suite	Chief Executives for VRS, including the Executive Director and Chief Investment Officer
DEC	Director’s Executive Committee
IIA	Institute of Internal Auditors
ISACA	Information Systems Audit and Control Association
IT	Information Technology
OSIG	Office of the State Inspector General
Roadmap	Program management tool used by VRS management to monitor critical organizational activities
SOC	Service Organization Control; internal control report on the outsourced services provided by a service organization allowing the user to assess and address the associated risks
SPCC	Small Purchase Charge Card
VITA	Virginia Information Technologies Agency
VRS	Virginia Retirement System

# Internal Audit

## FY2017-FY2020 Long-Range Plan Progress Report As of June 30, 2020

The period covered by our four year Long-Range plan ended on June 30, 2020. A comparison of what was planned versus what was accomplished is set forth in the following schedule. Adjustments to timing within or beyond the Long-Range plan are indicated via bolded blue font. Explanatory comments are provided to clarify such actions. Most timing adjustments pertain to areas where changes to the operating environment did not support the envisioned timing. Certain planned projects were eliminated based on extensive coverage provided by other parties not anticipated when creating this plan or changes in the approach to achieve the planned coverage. Hours greater than planned denote additional audit coverage provided not included in the original audit plan.

Overall, comprehensive audit coverage was provided for substantially all significant areas of VRS operations over the past four years.

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**VIRGINIA RETIREMENT SYSTEM**  
**Internal Audit FY2017-FY2020 Long-Range Plan Progress Report**  
**As of June 30, 2020**

Auditable Area	Approved Long-Range Plan	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Actual	Total	Comments
<b>RISK-BASED PROJECTS</b>							
<b>BENEFITS AND OPERATIONS</b>							
Actuarial Data	500	450	50			500	<b>Complete</b>
Administration Policies and Procedures (Governance)	600	0	150	550		700	<b>Complete</b>
Cash Receipts	500		500			500	<b>Complete</b>
Customer Relations	400				0	0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks.
Deferred Compensation Plan, Cash Match Plan and Other Retirement Plans	600				0	0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks and planned project in the same business area for FY2020.
Disability Retirements	600			0		0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks and other changes to the program administration.
Employer Records and Allowance Accounts	600		500	100		600	<b>Complete</b>
Employer Representative Program	500		0	0		0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks.
Health Insurance Trust Fund and Health Insurance Credits	400			0	200	200	Project deferred to FY2020 project with a delayed start to accommodate business operational needs. Project in progress - to be reported out in December.
Hybrid Retirement Plan	600	300	250			550	<b>Complete</b>
Internal Payroll and Compensated Absences	500			0		0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks.
Legislative and Compliance Monitoring	600				0	0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks.
Life Insurance	400			300	200	500	<b>Complete</b>
Line of Duty Act Fund (LODA)	600				600	600	<b>Complete</b> - to be reported out in September.
Long-Term Care Program	400		500			500	<b>Complete</b>
Member and Employer Contributions	600				1000	1000	Project in progress - to be reported out in December. Budget expanded to reflect additional efforts during audit to enhance our data analysis efforts.
Member Records and Demographic Data, including Inactive Accounts	400				0	0	Project eliminated based on extensive coverage provided by the Auditor of Public Accounts through their Employer Assurances Audit.
Operating Expenses Other Than Payroll, including SPCC	600		600			600	<b>Complete</b>
Optional Retirement Plan for Higher Education (ORPHE)	400		0	0	0	0	Project deferred from FY2018/2019 to FY2020 and ultimately to FY2021 to accommodate operational needs and in recognition of the global pandemic.
Procurement and Contracting	400	400				400	<b>Complete</b>



**VIRGINIA RETIREMENT SYSTEM**  
**Internal Audit FY2017-FY2020 Long-Range Plan Progress Report**  
**As of June 30, 2020**

Auditable Area	Approved Long-Range Plan	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Actual	Total	Comments
<b>RISK-BASED PROJECTS - Continued</b>							
<b>BENEFITS AND OPERATIONS - Continued</b>							
Purchase of Prior Service	600		200	700		900	<b>Complete</b>
Refunds	600	550	50			600	<b>Complete</b>
Retirement Payroll - New Additions and Changes	600		600			600	<b>Complete</b>
Virginia Sickness and Disability Plan (VSDP)	600	1000				1000	<b>Complete</b> (Consolidated with VLDP)
Virginia Local Disability Plan (VLDP)	600	0				0	<b>Complete</b> (Consolidated with VSDP)
<b>INVESTMENTS</b>							
Credit Strategies	400			300	300	600	<b>Complete</b>
Global Public Equity	400	400				400	<b>Complete</b>
Internal Fixed Income	500				0	0	Project deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks and pending changes to the program design.
Internal Public Equity	500			0	0	0	Project deferred from FY2019 to FY2020 to meet operational needs and again to FY2021 due to the Global Pandemic.
Investment Balances and Performance Reporting	600	525	75	0		600	<b>Complete</b> (Project brought forward from FY2019 to FY2017)
Investment Fees (Management and Custodian)	500			0	700	700	<b>Complete</b>
Investment Oversight of External Managers	500				0	0	Project eliminated - objectives will be addressed through other projects already in the audit plan.
Investment Research	600		0		700	700	<b>Complete</b> - to be reported out in September. Project originally deferred from FY2018 to FY2020. Project scope expanded to include MAPS.
Private Equity	400				400	400	Project deferred to FY2021 due to the Global Pandemic.
Real Assets	400			400		400	<b>Complete</b>
Strategic Opportunities Fund	400	400				400	<b>Complete</b>
<b>TECHNOLOGY SERVICES</b>							
Application Controls - Business Support Systems	400		500	50		550	<b>Complete</b>
Application Controls - Other Administrative Systems	400			0		0	Project eliminated - objectives will be addressed through other projects already in the audit plan.
Application Controls - VNAV/myVRS	800	150	450		0 <sup>(1)</sup>	600	<b>Complete</b>
IT Security Audit of Sensitive Information Systems in the Client/Server Environment	600			500	300	800	<b>Complete</b>
IT Security Audit of Sensitive Information Systems in the Mainframe Environment	600	450				450	<b>Complete</b>
Program/Project Management	600				0	0	Project eliminated - objectives will be addressed through other projects already in the audit plan.

**VIRGINIA RETIREMENT SYSTEM**  
**Internal Audit FY2017-FY2020 Long-Range Plan Progress Report**  
**As of June 30, 2020**

Auditable Area	Approved Long-Range Plan	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Actual	Total	Comments
<b>RISK-BASED PROJECTS - Continued</b>							
<b>TECHNOLOGY SERVICES - Continued</b>							
Remote Access (Mobility)	250				0	0	Project deferred to a period outside of this Long-Range Plan due to timing and coverage of work performed by the Auditor of Public Accounts.
Review of Mock Production Process	0			250		250	<b>Complete</b>
Review of RIMS Data Conversion	0			500		500	<b>Complete</b>
<b>PRE-COMMITTED TIME</b>							
<b>REVIEWS (PROJECTS) PRIORITIZED OUTSIDE OF THE RISK ASSESSMENT PROCESS</b>							
<b>IA Identified Recurring Reviews</b>							
Conformance of VRS Information Security Program with VITA Standards	800	200	200	200	200	800	<b>Complete for all fiscal years</b>
Modernization - Monitor/Consult on a Continuous Basis	1,000	500	300	250	125	1,175	Modernization - Phase 4 re-baselined (extended) requiring additional oversight hours.
Continuous Auditing Activities	3,350	1,100	600	1,000	650	3,350	Reflective of actual experience. Adjusted to allow for needs within other projects.
On-Site Review of Bank of New York Mellon	800	325	75	0	0	400	<b>Complete for FY2017</b> - first visit. Second visit deferred to a period outside of this Long-Range Plan due to competing priorities with greater risks.
Report on Fraud, Waste and Abuse Hotline Cases	400	100	100	100	100	400	<b>Complete for all fiscal years</b>
Review of Investment Incentive Compensation Plan	400	100	100	100	50	350	<b>Complete for all fiscal years</b> - FY2020 reduction reflects enhancements to our process.
Review Results of Agency Performance Outcomes (APOs)	400	100	100	100	100	400	<b>Complete for all fiscal years</b>
Travel Expenses and Per Diem Report	400	100	100	100	0	300	<b>Complete for FY2017, FY2018 and FY2019</b> FY2020 reflects removal of review. Report still provided.
Verification of Cost of Living Adjustments (COLAs)	200	50	50	50	25	175	<b>Complete for all fiscal years</b> - FY2020 reduction reflects enhancements to our process.
<b>ANNUALLY RECURRING TASKS</b>							
<b>Fulfilling Activities Required by IIA Standards</b>							
Quality Assurance Improvement Program Monitoring & Reporting	800	200	200	200	200	800	
External Quality Assurance Review/Internal Assessment	300			100	200	300	
Audit Plan Monitoring	400	100	100	100	100	400	
Develop and Update Long-Range Plan and Corresponding Annual Audit Plan	600	150	150	150	150	600	
Coordination and Consultation With APA	200	50	50	50	50	200	
Quarterly ARFUS Monitoring	400	100	100	100	100	400	
Annual ARFUS Review	600	150	150	150	150	600	

**VIRGINIA RETIREMENT SYSTEM**  
**Internal Audit FY2017-FY2020 Long-Range Plan Progress Report**  
**As of June 30, 2020**

Auditable Area	Approved Long-Range Plan	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Actual	Total	Comments
<b>PRE-COMMITTED TIME - Continued</b>							
<b>Supporting Audit &amp; Compliance Committee</b>							
Review, Compilation and Publication of Meeting Materials	1,000	250	250	250	250	1,000	
Attendance	325	85	80	80	80	325	
Preparation of Meeting Minutes and Committee Report	280	70	70	70	70	280	
<b>Risk Monitoring Activities</b>							
Attendance at Board Meetings and other Committee Meetings (including Board Retreat)	600	150	150	150	150	600	
Attendance at Executive Team Meetings (DEC, Roadmap, C-suite)	480	120	120	120	120	480	
Review of Independent Auditor's Reports on VRS Third Parties (SOC Reports)	200	50	50	50	50	200	
Monitor and Review Professional Literature	320	80	80	80	80	320	
APPFA and Other Professional Organizations (IIA, ISACA, ACL/Tableau User Groups)	300	75	75	75	75	300	
<b>Other Administrative Activities</b>							
Strategic Planning for the Internal Audit Department's new Director	300	300				300	
Maintain Fiscal Budget, Department Files, SPCC Log and Recon; Make SPCC Purchases	400	100	100	100	100	400	
Internal Audit Staff Meetings and Mentoring	1,000	250	250	250	250	1,000	
External Reporting and Other Interactions (OSIG/VITA)	100	25	25	25	25	100	
Administration of CPE	465	120	115	115	115	465	
Performance Standards and Evaluations	240	60	60	60	60	240	
Participation in VRS Events/Committees	480	120	120	120	120	480	
<b>OTHER UNPLANNED OR UNAVAILABLE TIME</b>							
<b>Unplanned Hours</b>	2,185	520	455	755	1,835	3,565	Adjusted to allow for other projects' needs over the course of the long-range plan. Expanded in final year for support of various activities and impacts of global pandemic.
<b>Unavailable Time</b>							
Continuing Professional Education (CPE)	1,225	325	300	300	300	1,225	
Holidays	2,670	720	650	650	650	2,670	
Annual Leave	3,250	1,000	750	750	750	3,250	
Sick/Personal Leave; Volunteer Hours	1,920	480	480	480	480	1,920	
Building Renovation and Relocation	120	120				120	
<b>Prior FY Hours Brought Forward and Other Audit Resourcing Related Items Requiring Adjustment to Remaining FY Plans <sup>(2)</sup></b>		550	1,500	1,600	320	3,970	See details in the individual Annual Plan Progress Reports.
<b>TOTAL PLANNED HOURS <sup>(3)</sup></b>	<b>50,960</b>	<b>13,520</b>	<b>12,480</b>	<b>12,480</b>	<b>12,480</b>	<b>50,960</b>	

**VIRGINIA RETIREMENT SYSTEM**  
**Internal Audit FY2017-FY2020 Long-Range Plan Progress Report**  
**As of June 30, 2020**

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**Notes:**

Bolded blue font indicates changes in the planned hours or timing of the auditable area. Explanations regarding these changes are provided in the "Comments" column.

<sup>(1)</sup> This Auditable area is subject to VITA's 3-year audit cycle. Given the delayed start of this first time project, it will not be required to be performed again until FY2021, during the next 4 year workplan. Therefore, the approved project hours during FY2020 have been removed from the audit plan.

<sup>(2)</sup> This item also includes hours to reflect a decline in available audit resources due to a resignation within the team including the impact of recruitment efforts to fill that position and/or the use of parental leave benefits.

<sup>(3)</sup> For FY2017 only, hours were increased for certain auditable areas and unavailable time to account for Internal Audit's overhire status effective through December 31, 2016.

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**Acronyms not Described Elsewhere:**

ACL - Audit Command Language, audit software used to support data analysis and our examinations

APA - Auditor of Public Accounts

APPFA - Association of Public Pension Fund Auditors

ARFUS - Audit Recommendation Follow-Up System

C-suite - Chief Executives for VRS, including the Executive Director and Chief Investment Officer

DEC - Director's Executive Committee

IIA - Institute of Internal Auditors

ISACA - Information Systems Audit and Control Association

IT - Information Technology

myVRS - web-based portal for members developed through the Modernization program

OSIG - Office of the State Inspector General

Roadmap - program management tool used by VRS management to monitor critical organizational activities

SOC - Service Organization Control; internal control report on the outsourced services provided by a service organization allowing the user to assess and address the associated risks

SPCC - Small Purchase Charge Card

VITA - Virginia Information Technologies Agency

VNAV - myVRS Navigator, administrative system developed through the Modernization program

VRS - Virginia Retirement System

Proposed FY2021-FY2024  
Long-Range Audit Plan  
and  
FY2021 Annual Audit Plan

# Internal Audit Proposed FY2021 – FY2024 Long-Range Audit Plan Proposed FY2021 Annual Audit Plan



- ✓ Six Internal Audit Resources Available
- ✓ This translates to 12,480 Total Available Hours per year  
(2,080 hours X 6 resources)
- ✓ Providing a total of 49,920 Available Hours during the Proposed Long-Range Audit Plan period

- ✓ A significant portion of our Available Time is already spoken for:
  - Other Audit Reporting and Support
    - Other Reporting (5% of available time)
    - Audit Support (10% of available time)
    - Audit and Compliance Committee Support (4% of available time)
  - Ongoing Activities
    - Risk Monitoring Activities (4% of available time)
    - Other Administrative Activities (9% of available time)
  - Other Time
    - Unavailable Time - Leave Benefits (16% of available time)
    - Unplanned Hours (9% of available time)



- ✓ Commonwealth of Virginia Information Security Standards mandate the review of VRS' Sensitive Systems once every three years
- ✓ Remaining available time allocated based on formal Risk Assessment Process completed with input from Management and the Board
  - Determining and categorizing of the potential audit universe
    - Investments
    - Benefits
    - Operations
  - Identifying events that may give rise to risks and opportunities across the audit universe
  - Scoring those events in terms of probability and impact (taking into account management's actions to mitigate risk) to identify the level of residual risk
  - Building a risk-based audit plan by using organizational risk factors and criteria for each factor to prioritize the audit elements within the audit universe

- ✓ Audit Universe included 33 non-information technology related areas for audit/review
  - ✓ Not all projects are created equal
  - ✓ Risk Assessment provides for the ranking of the Audit Universe based on the following Organizational Risk Factors:
    - A. Internal Control Structure
    - B. Changes in Organization, Programs and Operations
    - C. Complexity of Activities
    - D. Likelihood for Fraud
    - E. Information Technology Processing Maturity
    - F. Sensitivity of Data Impact to Members, Employers and Public
    - G. Financial Significance
    - H. Last Audited
    - I. Audit Issues Identified in Prior Audit
- Internal Audit and Management Input Received
- Internal Audit Considerations

- ✓ Unconstrained Budget for the Audit Universe, including information security related projects, required **28,000 Hours** to complete all items (over the course of the Long-Range Plan period)
- ✓ Considering our Pre-committed Time, **21,500 Hours** are actually available to commit to the Audit Universe
- ✓ **8,000 Hours** of the available time are dedicated to mandated projects designed to meet the Commonwealth of Virginia Information Security Standards
- ✓ Within these constraints, the ranking and timing of the items in the Audit Universe were evaluated based on an understanding of current operational priorities and ongoing/upcoming initiatives leading to the Proposed Long-Range Audit Plan

- ✓ The annual audit plan is derived from the Long-Range plan
- ✓ As reflected by the final status report for the prior Long-Range plan, over time the planned timing and actual timing will diverge
- ✓ This reflects our agility in addressing new and emerging organizational and operational risks over time while ensuring our efforts best support the needs of the Board and management
- ✓ As this is the first year of the Long-Range plan, there is no variance between the proposed Long-Range plan and proposed Annual plan

# Request for Board Action

- ✓ RBA: Approval of FY2021-FY2024 Long-Range Audit Plan
- ✓ RBA: Approval of FY2021 Annual Audit Plan

# Internal Audit Proposed FY2021-FY2024 Long-Range Audit Plan



Proposed Plan .....	1-3
Explanatory Notes and Acronyms .....	4

**Virginia Retirement System**  
**Proposed FY2021-FY2024 Long-Range Audit Plan**

Proposed Projects	Suggested Total Budgeted Hours	Allocation of Suggested Total Budgeted Hours				Total
		FY2021	FY2022	FY2023	FY2024	
<b>RISK BASED PROJECTS</b>	<b>21,850</b>	<b>5,250</b>	<b>5,450</b>	<b>5,750</b>	<b>5,400</b>	<b>21,850</b>
<b>Carry Over from Prior Long-Range Plan</b>						
Line of Duty Act	50	50				50
Member and Employer Contributions	200	200				200
Portfolio Intelligence Team	100	100				100
<b>Investments</b>						
Credit Strategies Program and Private Investment Partnerships (PIP)	600			600		600
Fixed Income Program and Securities Lending	600		600			600
Global Public Equity Program	600				600	600
Internal Public Equity Program	550	550				550
Investment Balances, Performance Reporting and Investment Manager Compensation	750				750	750
On-Site Review of Bank of New York Mellon	600			600		600
Private Equity Program	600	600				600
<b>Benefits</b>						
Deferred Compensation and Cash Match Plans	700				700	700
Disability Retirements	700			700		700
Health Insurance Premiums and Credits	400	400				400
Long-Term Care Program	400		400			400
Managed Disabilities Programs (VSDP and VLDP)	800			800		800
Member and Employer Contributions	700				700	700
Optional Retirement Plan for Higher Education (ORPHE)	600	600				600
Purchase of Prior Service	700				700	700
Refunds	800		800			800
Retiree Payroll - Processing and Changes	800	800				800
Retirement Application Processing	800		800			800
<b>Operations</b>						
Cash Assets and Cash Management (Administration and Investments)	600		600			600
Human Resources, Internal Payroll and Leave Administration	600			600		600
Procurement and Contract Management (Administration and Investments)	600		200	400		600

**Virginia Retirement System**  
**Proposed FY2021-FY2024 Long-Range Audit Plan**

Proposed Projects	Suggested Total Budgeted Hours	Allocation of Suggested Total Budgeted Hours				Total
		FY2021	FY2022	FY2023	FY2024	
<b>RISK BASED PROJECTS, Continued</b>						
<b>Information Technology <sup>(1)</sup></b>						
Conformance of VRS Information Security Program with VITA Standards <sup>(2)</sup>	600	150	150	150	150	600
General Controls Review over VRS' Operating Environment (Infrastructure Systems, excluding Physical Access)	800		800			800
General Ledger Review	600		600			600
Hosted Systems Review - Administration	1,000	500			500	1,000
Hosted Systems Review - Investments	600			600		600
Investment Decision Systems Reivew	600			600		600
Logical and Physical Access Review (RAMS and Physical Access Infrastructure Systems)	700			700		700
myVRS Systems Review	500		500			500
VNAV and Related Systems Review	1,600	800			800	1,600
VRS Public Website Review	1,000	500			500	1,000
<b>OTHER AUDIT REPORTING AND SUPPORT</b>	<b>9,090</b>	<b>2,395</b>	<b>2,195</b>	<b>2,195</b>	<b>2,305</b>	<b>9,090</b>
<b>Other Reporting</b>	<b>2,490</b>	<b>770</b>	<b>570</b>	<b>570</b>	<b>580</b>	<b>2,490</b>
Audit Quality Assurance Improvement Program	600	150	150	150	150	600
Audit Quality Assurance Review - External (1 every 5 years) <sup>(3)</sup>	10				10	10
Audit Recommendation Follow-Up System Annual Review	600	150	150	150	150	600
Audit Recommendation Follow-Up System Quarterly Monitoring	100	25	25	25	25	100
Modernization Program Monitoring	200	200				200
Report on Fraud, Waste and Abuse Hotline Cases	300	75	75	75	75	300
Review of Investment Incentive Compensation Plan	300	75	75	75	75	300
Review Results of Agency Performance Outcomes (APOs)	300	75	75	75	75	300
Verification of Cost of Living Adjustments (COLAs)	80	20	20	20	20	80
<b>Audit Support</b>	<b>4,760</b>	<b>1,165</b>	<b>1,165</b>	<b>1,165</b>	<b>1,265</b>	<b>4,760</b>
Coordination with the Auditor of Public Accounts (APA)	160	40	40	40	40	160
Data Analytics and Support	3,600	900	900	900	900	3,600
Develop and Update Annual and Long-Range Plans	600	125	125	125	225	600
Monitor Annual and Long-Range Plan Progress	400	100	100	100	100	400



**Virginia Retirement System**  
**Proposed FY2021-FY2024 Long-Range Audit Plan**

Proposed Projects	Suggested Total Budgeted Hours	Allocation of Suggested Total Budgeted Hours				Total
		FY2021	FY2022	FY2023	FY2024	
<b>OTHER AUDIT REPORTING AND SUPPORT, Continued</b>						
<b>Audit and Compliance Committee Support</b>	<b>1,840</b>	<b>460</b>	<b>460</b>	<b>460</b>	<b>460</b>	<b>1,840</b>
Review, Compile and Publish Meeting Materials	1,200	300	300	300	300	1,200
Attend Audit and Compliance Meetings	320	80	80	80	80	320
Prepare Committee Report and Meeting Minutes	320	80	80	80	80	320
<b>ONGOING ACTIVITIES</b>	<b>6,320</b>	<b>1,580</b>	<b>1,580</b>	<b>1,580</b>	<b>1,580</b>	<b>6,320</b>
<b>Risk Monitoring Activities</b>	<b>1,800</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>1,800</b>
Attend Board and other Committee Meetings	680	170	170	170	170	680
Attend Executive Team Meetings (DEC, Roadmap, C-suite)	400	100	100	100	100	400
Monitor and Review Professional Literature	360	90	90	90	90	360
Participate in Professional Organizations (APPPFA, IIA, ISACA, Tableau User Groups)	360	90	90	90	90	360
<b>Other Administrative Activities</b>	<b>4,520</b>	<b>1,130</b>	<b>1,130</b>	<b>1,130</b>	<b>1,130</b>	<b>4,520</b>
Continuing Professional Education	1,440	360	360	360	360	1,440
Continuing Professional Education Administration	600	150	150	150	150	600
External Reporting and Other Interactions (OSIG, VITA)	40	10	10	10	10	40
Internal Audit Staff Meetings and Mentoring	1,200	300	300	300	300	1,200
Manage Budget, Departmental Files, SPCC and Purchasing	400	100	100	100	100	400
Participate in VRS Events/Committees	600	150	150	150	150	600
Performance Standards and Evaluations	240	60	60	60	60	240
<b>OTHER TIME</b>	<b>12,660</b>	<b>3,255</b>	<b>3,255</b>	<b>2,955</b>	<b>3,195</b>	<b>12,660</b>
Annual Leave	3,000	750	750	750	750	3,000
Holidays	2,496	648	648	600	600	2,496
Other Leave (Sick, Personal, Volunteer, etc)	2,640	660	660	660	660	2,640
Unplanned Hours <sup>(4)</sup>	4,524	1,197	1,197	945	1,185	4,524
<b>TOTAL TIME</b>	<b>49,920</b>	<b>12,480</b>	<b>12,480</b>	<b>12,480</b>	<b>12,480</b>	<b>49,920</b>

# Virginia Retirement System

## Proposed FY2021-FY2024 Long-Range Audit Plan

### Notes:

- (1) Proposed projects categorized under Information Technology are subject to VITA's 3-year audit cycle. Therefore, projects proposed for FY2021 will be repeated in FY2024. While this is the proposed audit cycle to meet this requirement, adjustments may be made based on risk and other timing considerations.
- (2) This annually executed project allows for the timely consideration of VRS' policy conformance with that of VITA's as VRS and VITA both make modifications to their security programs over time and they must remain in alignment with each other. This project supports the completion of our other Information Technology-related projects.
- (3) The External Quality Assurance Review is performed once every five years per *The Standards* promulgated by the IIA. The last external review was performed in the fall of 2019. The next external review will be need to be completed by the fall of 2024, which falls outside of this long-range plan period. However, the procurement efforts to identify and select the external quality assurance provider will need to be initiated in the spring of 2024. The proposed hours support that effort.
- (4) Unplanned hours provides a contingency of time for other assurance, compliance or administrative projects or activities which may arise over the course of the year which warrant attention.

### Acronyms not Described Elsewhere:

APPFA	Association of Public Pension Fund Auditors
C-suite	Chief Executives for VRS, including the Executive Director, Chief Investment Officer and Internal Audit Director
DEC	Director's Executive Committee
IIA	Institute of Internal Auditors
ISACA	Information Systems Audit and Control Association
myVRS	Web-based portal for members developed through the Modernization Program
OSIG	Office of the State Inspector General
Roadmap	Program management tool used by VRS management to monitor critical organizational activities
SPCC	Small Purchase Charge Card
VITA	Virginia Information Technologies Agency
VNAV	myVRS Navigator, administrative system developed through the Modernization Program
VRS	Virginia Retirement System

# Internal Audit Proposed FY2021 Annual Audit Plan



Proposed Plan .....	1-2
Explanatory Notes and Acronyms .....	3

**Virginia Retirement System  
Proposed FY2021 Annual Audit Plan**

Proposed Projects	Proposed Long-Range Plan FY2021	Proposed Annual Plan FY2021 <sup>(2)</sup>
<b>RISK BASED PROJECTS</b>	<b>5,250</b>	<b>5,250</b>
<b>Carry Over from Prior Long-Range Plan <sup>(1)</sup></b>		
Line of Duty Act	50	50
Member and Employer Contributions	200	200
Portfolio Intelligence Team	100	100
<b>Investments</b>		
Internal Public Equity Program	550	550
Private Equity Program	600	600
<b>Benefits</b>		
Health Insurance Premiums and Credits	400	400
Optional Retirement Plan for Higher Education (ORPHE)	600	600
Retiree Payroll - Processing and Changes	800	800
<b>Information Technology</b>		
Conformance of VRS Information Security Program with VITA Standards	150	150
Hosted Systems Review - Administration	500	500
VNAV and Related Systems Review	800	800
VRS Public Website Review	500	500
<b>OTHER AUDIT REPORTING AND SUPPORT</b>	<b>2,395</b>	<b>2,395</b>
<b>Other Reporting</b>	<b>770</b>	<b>770</b>
Audit Quality Assurance Improvement Program	150	150
Audit Recommendation Follow-Up System Annual Review	150	150
Audit Recommendation Follow-Up System Quarterly Monitoring	25	25
Modernization Program Monitoring	200	200
Report on Fraud, Waste and Abuse Hotline Cases	75	75
Review of Investment Incentive Compensation Plan	75	75
Review Results of Agency Performance Outcomes (APOs)	75	75
Verification of Cost of Living Adjustments (COLAs)	20	20

**Virginia Retirement System  
Proposed FY2021 Annual Audit Plan**

Proposed Projects	Proposed Long-Range Plan FY2021	Proposed Annual Plan FY2021
<b>OTHER AUDIT REPORTING AND SUPPORT, Continued</b>		
<b>Audit Support</b>	<b>1,165</b>	<b>1,165</b>
Coordination with the Auditor of Public Accounts (APA)	40	40
Data Analytics and Support	900	900
Develop and Update Annual and Long-Range Plans	125	125
Monitor Annual and Long-Range Plan Progress	100	100
<b>Audit and Compliance Committee Support</b>	<b>460</b>	<b>460</b>
Review, Compile and Publish Meeting Materials	300	300
Attend Audit and Compliance Meetings	80	80
Prepare Committee Report and Meeting Minutes	80	80
<b>ONGOING ACTIVITIES</b>	<b>1,580</b>	<b>1,580</b>
<b>Risk Monitoring Activities</b>	<b>450</b>	<b>450</b>
Attend Board and other Committee Meetings	170	170
Attend Executive Team Meetings (DEC, Roadmap, C-suite)	100	100
Monitor and Review Professional Literature	90	90
Participate in Professional Organizations (APPFA, IIA, ISACA, Tableau User Groups)	90	90
<b>Other Administrative Activities</b>	<b>1,130</b>	<b>1,130</b>
Continuing Professional Education	360	360
Continuing Professional Education Administration	150	150
External Reporting and Other Interactions (OSIG, VITA)	10	10
Internal Audit Staff Meetings and Mentoring	300	300
Manage Budget, Departmental Files, SPCC and Purchasing	100	100
Participate in VRS Events/Committees	150	150
Performance Standards and Evaluations	60	60
<b>OTHER TIME</b>	<b>3,255</b>	<b>3,255</b>
Annual Leave	750	750
Holidays	648	648
Other Leave (Sick, Personal, Volunteer, etc.)	660	660
Unplanned Hours	1,197	1,197
<b>TOTAL TIME</b>	<b>12,480</b>	<b>12,480</b>

# Virginia Retirement System

## Proposed FY2021 Annual Audit Plan

### Notes:

- (1) Due to unforeseen circumstances impacting the timing of work, certain audit projects will initiate in one fiscal year and be reported out in the next fiscal year. Typically they are reported out at the September Audit and Compliance Committee meeting. These projects are identified as a part of planning for the upcoming fiscal year annual audit plan and their impact is considered when determining the extent of available resources.
- (2) As FY2021 is the first year of the long-range audit plan, there are no suggested modifications or adjustments between FY2021 as presented in the Proposed FY2021-FY2024 Long-Range Audit Plan and the Proposed FY2021 Annual Audit Plan.

### Acronyms not Described Elsewhere:

APPFA	Association of Public Pension Fund Auditors
C-suite	Chief Executives for VRS, including the Executive Director, Chief Investment Officer and Internal Audit Director
DEC	Director's Executive Committee
IIA	Institute of Internal Auditors
ISACA	Information Systems Audit and Control Association
myVRS	Web-based portal for members developed through the Modernization Program
OSIG	Office of the State Inspector General
Roadmap	Program management tool used by VRS management to monitor critical organizational activities
SPCC	Small Purchase Charge Card
VITA	Virginia Information Technologies Agency
VNAV	myVRS Navigator, administrative system developed through the Modernization Program
VRS	Virginia Retirement System



## **Approval of FY2021-FY2024 Long-Range Audit Plan**

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### **Requested Action**

VRS Board of Trustees approves the proposed FY2021-FY2024 Long-Range Audit Plan.

### **Description/Background**

The Audit Director has developed a comprehensive risk assessment process to identify and prioritize the work of the Internal Audit Department in line with organizational and operational risk priorities of the Board of Trustees and VRS management. The process is applied against a universe of potential audit projects and results in the creation of a Long-Range four year audit plan, from which the annual audit plan is derived.

When developing the Long-Range Audit Plan, consideration is given to the impact of mandatory audit activities, such as the review of VRS' sensitive systems required by the Virginia Information Technologies Agency (VITA), on the available resources and the ability of those resources to cover both the risk-based and mandatory items. Due to the relative level of risk as well as the available resources, not all items within the potential audit universe should be or will be subject to audit during the Long-Range Audit Plan.

### **Rationale for Requested Action**

The proposed Long-Range Audit Plan is brought forward once every four years for Board consideration and approval, ensuring the work of the Internal Audit Department remains in alignment with organizational and operational risk priorities.

### **Authority for Requested Action**

Section V.C.6 of the VRS Board of Trustees' Governance Policy delegates the responsibility of developing a comprehensive long-range audit plan to the Audit Director and providing that audit plan to the Audit and Compliance Committee and the Board of Trustees for review and approval.

The above action is approved.

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O'Kelly E. McWilliams, III, Chairman  
VRS Board of Trustees

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Date



**Approval of FY2021 Annual Audit Plan**

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**Requested Action**

VRS Board of Trustees approves the proposed FY2021 Annual Audit Plan.

**Description/Background**

The Audit Director has developed a comprehensive risk assessment process to identify and prioritize the work of the Internal Audit Department in line with organizational and operational risk priorities of the Board of Trustees and VRS management. The process is applied against a universe of potential audit projects within the limitations created by the available audit resources and results in the creation of a Long-Range four year audit plan.

Annually the Audit Director looks to the guidance provided by the Long-Range plan, and develops the Annual Audit plan. FY 2021 is the first year in the Long-Range plan, as a result it directly reflects the composition of projects proposed by the Long-Range plan.

**Rationale for Requested Action**

The proposed Annual Audit Plan, derived from the approved Long-Range plan is brought forward annually for Board consideration and approval, ensuring the work of the Internal Audit Department remains in alignment with organizational and operational risk priorities.

**Authority for Requested Action**

Section V.C.6 of the VRS Board of Trustees' Governance Policy delegates the responsibility of developing a comprehensive annual audit plan to the Audit Director and providing that plan to the Audit and Compliance Committee and the Board of Trustees for review and approval.

The above action is approved.

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O'Kelly E. McWilliams, III, Chairman  
VRS Board of Trustees

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Date



# Quarterly Report on Fraud, Waste and Abuse

# Report of Alleged Fraud, Waste and Abuse Hotline Cases

**For Complaints Received During the Period  
May 1, 2020 through July 31, 2020**

## SUMMARY OF CASES REVIEWED AND CLOSED

During the period May 1, 2020 through July 31, 2020, we received three cases of potential Fraud, Waste and Abuse from the Office of the State Inspector General. The first case alleged abuse of retirement benefits and was determined to be unfounded; thus closed. The second alleged a broad abuse of benefits and is currently under review by the VRS Compliance Department. The third alleged abuse of short-term disability benefits and is currently under review by the VSDP Product Administrator.

VRS Control Number	Date Complaint Received	Noted Concern	VRS Personnel Assisting with Allegation	Case Closed	Resolution	Source of the Complaint	Report to OSIG
37	6/14/2020	There is an allegation of retirement benefits fraud.	Cynthia Wilkinson and Brian Goodman	Yes	Allegation was unfounded with regards to VRS retirement benefits.	OSIG	No
38	7/14/2020	There is an allegation of benefits fraud.	Cynthia Wilkinson and Brian Goodman	No	The case is still under review.	OSIG	No
39	7/16/2020	There is an allegation of Short-Term Disability abuse.	Mike Pote	No	The case is still under review.	OSIG	No

## Background

Fraud, Waste and Abuse relating to VRS can be comprised of any number of concerns. Such items can be reported to VRS' Internal Audit Department directly or through the Office of the State Inspector General (OSIG) State Employee Fraud, Waste and Abuse Hotline. (A majority of complaints are received through OSIG.)

All matters that relate to Fraud, Waste and/or Abuse reported are reviewed to determine the proper protocol for investigation.

## Committee Reporting

Cases of a serious and/or significant nature will be reported to the VRS Audit and Compliance Committee immediately. At a minimum, a summary of all Hotline cases will be reported to the Audit and Compliance Committee on a quarterly basis.

## Retention

Hardcopy documents, including handwritten notes, are stored in a secure location until the case is closed, upon which they are shredded. Electronic files are stored on Internal Audit's secured drive. Documentation containing case details are labeled "**CONFIDENTIAL – STATE FRAUD, WASTE AND ABUSE HOTLINE DOCUMENTS**" and sensitive items are labeled FOIA Exempt. As appropriate, files are disposed of in accordance with the Library of Virginia's retention policy.

# FRAUD, WASTE AND ABUSE CASE MANAGEMENT

## PROCESSING OF COMPLAINTS

When received, the Audit Director and Hotline Auditor perform a preliminary review of the complaint. After initial discussion, the Hotline Auditor determines whether a formal response is required by OSIG (cases referred by OSIG may or may not require a formal response, depending on the nature of the complaint) and adds the case to Internal Audit's Hotline Tracking System.

The Hotline Auditor sets up a case file on Internal Audit's secured and restricted drive to maintain confidentiality. The Hotline Auditor then evaluates the case details and may review information available in VRS' systems to obtain further details about the subject of the complaint. Additionally, the Hotline Auditor may forward the details of the case to other VRS personnel for review. The Hotline Auditor also notifies the VRS Director of the case.

Complaints regarding disability benefits constitute the large majority of the Hotline cases received by VRS. The Hotline Auditor will meet with appropriate VRS staff, as necessary, to discuss details of the case in order for all parties to proceed forward with their portion of the investigation. Complaints forwarded to others are monitored for resolution. Actions and determinations for cases are reviewed for reasonableness by the Hotline Auditor. Once a determination of appropriate action has occurred, such action is documented in the Internal Audit case file and on the Hotline Tracking System. The Internal Audit Director is apprised of all actions and determinations.

For other complaints, such as internal fraud, waste or abuse (examples could include abuses of various types of leave, teleworking policies, employee theft, etc.), the Hotline Auditor investigates the allegation and obtains supporting documentation from management, as needed. If a determination is made that there is a reasonable possibility of fraud, waste or abuse, management is notified of the allegation by the Audit Director and given a reasonable timeframe in which to report back to the Audit Director any actions taken regarding the allegation. The Audit Director determines the reasonableness of such actions, reports the actions and resolution of the complaint to the Hotline Auditor who documents the results in the case file and on the Hotline Tracking System.

All investigation results are reported to the VRS Director and members of the VRS Audit and Compliance Committee once a case is resolved, regardless of the outcome.

# Miscellaneous Updates




Virginia  
Retirement  
System

P.O. Box 2500, Richmond, VA 23218-2500  
Toll-free: 888-827-3847  
Website: [varetire.org](http://varetire.org)  
Email: [vrs@varetire.org](mailto:vrs@varetire.org)

Patricia S. Bishop  
*Director*

**MEMORANDUM**

**To:** Jennifer P. Schreck, Internal Audit Director  
**From:** Patricia S. Bishop, Director   
**Date:** September 17, 2020  
**Subject:** Summary of Travel Related Expenses

I am attaching the following:

1. Summary of Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through June 30, 2020.
2. Summary of Other Sponsored Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through June 30, 2020.
3. Schedule of Selected Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through June 30, 2020.
4. Record of Attendance and Per Diems for the Quarter Ended June 30, 2020.

This information should be shared with the Audit & Compliance Committee.

If you have any questions, please do not hesitate to ask.

PSB/lbk

Attachments

Virginia Retirement System  
 Summary of Travel Related Expenses  
 (Board and Committee Members, VRS Executive Staff, and VRS Professional Investment Staff)  
 Fiscal Year-To-Date Through June 2020

Name of Traveler	Current Quarter Costs						Fiscal Year-To-Date Prior Report						Fiscal Year-To-Date					
	Total Travel Expenses			Out of State Travel			Total Travel Expenses			Out of State Travel			Total Travel Expenses			Out of State Travel		
	Sponsor Provided	VRS Provided	Total	Number of Trips	Cost	Purpose	Sponsor Provided	VRS Provided	Total	Number of Trips	Cost	Sponsor Provided	VRS Provided	Total	No. of Trips	Cost		
<b>Board of Trustees &amp; Committee Members</b>																		
Beasley, Michael	-	-	-				-	1,921.94	1,921.94	-	-	-	1,921.94	1,921.94	-	-		
Bell II, J. Brandon	-	-	-				-	2,216.86	2,216.86	-	-	-	2,216.86	2,216.86	-	-		
Deo, Ravindra	-	-	-				-	274.25	274.25	-	-	-	274.25	274.25	-	-		
Economou, Theodore	-	-	-				-	2,575.64	2,575.64	-	-	-	2,575.64	2,575.64	-	-		
Harris, Wallace G.	-	-	-				-	2,315.36	2,315.36	-	-	-	2,315.36	2,315.36	-	-		
Irvin, Shannon	-	-	-				-	283.04	283.04	-	-	-	283.04	283.04	-	-		
Lewis, Wilbert Bryan	-	-	-				-	574.27	574.27	-	-	-	574.27	574.27	-	-		
McWilliams III, O'Kelly	-	-	-				-	3,311.01	3,311.01	-	-	-	3,311.01	3,311.01	-	-		
Montgomery, Joseph	-	-	-				-	454.16	454.16	-	-	-	454.16	454.16	-	-		
Nason, Mitchell L.	-	-	-				-	1,119.18	1,119.18	-	-	-	1,119.18	1,119.18	-	-		
Seward, Troilen	-	-	-				-	5,219.45	5,219.45	1	2,498.17	-	5,219.45	5,219.45	1	2,498.17		
<b>Staff</b>																		
Adelaar, Stephen F.	-	-	-				-	15,045.03	15,045.03	2	12,645.87	-	15,045.03	15,045.03	2	12,645.87		
Alouf, John	-	-	-				12,839.30	29,570.74	42,410.04	10	27,159.27	12,839.30	29,570.74	42,410.04	10	27,159.27		
Apte, Advait	-	-	-				-	3,724.30	3,724.30	3	3,724.30	-	3,724.30	3,724.30	3	3,724.30		
Baskind, Katherine	-	-	-				5,140.10	2,633.24	7,773.34	7	2,633.24	5,140.10	2,633.24	7,773.34	7	2,633.24		
Beaton, Farley	-	-	-				-	218.50	218.50	-	-	-	218.50	218.50	-	-		
Behrooz, Parham	-	-	-				-	2,480.96	2,480.96	-	-	-	2,480.96	2,480.96	-	-		
Bennett, Matthew	-	-	-				-	1,936.42	1,936.42	2	1,936.42	-	1,936.42	1,936.42	2	1,936.42		
Billingslea, Erica	-	-	-				-	3,023.24	3,023.24	3	3,023.24	-	3,023.24	3,023.24	3	3,023.24		
Bishop, Patricia S.	-	-	-				-	7,093.95	7,093.95	2	3,460.00	-	7,093.95	7,093.95	2	3,460.00		
Brooks, Richard	-	-	-				-	8,472.39	8,472.39	1	3,185.47	-	8,472.39	8,472.39	1	3,185.47		
Chang, Warren	-	-	-				14,249.26	10,997.32	25,246.58	9	11,055.22	14,249.26	10,997.32	25,246.58	9	11,055.22		
Coleman, Thomas J.	-	-	-				18,001.06	4,163.41	22,164.47	6	3,987.99	18,001.06	4,163.41	22,164.47	6	3,987.99		
Corsello, Perry	-	-	-				3,084.64	3,748.37	6,833.01	5	3,748.37	3,084.64	3,748.37	6,833.01	5	3,748.37		
Faison, Barry	-	-	-				-	4,671.99	4,671.99	2	4,671.99	-	4,671.99	4,671.99	2	4,671.99		
Gentry, William H.	-	-	-				3,307.28	20,013.46	23,320.74	10	20,013.46	3,307.28	20,013.46	23,320.74	10	20,013.46		
Glass, Holly R.	-	-	-				-	11,856.84	11,856.84	1	11,856.84	-	11,856.84	11,856.84	1	11,856.84		
Grier, John T.	-	-	-				-	3,427.22	3,427.22	2	3,427.22	-	3,427.22	3,427.22	2	3,427.22		
Hines, Gregory	-	-	-				-	4,500.23	4,500.23	4	4,500.23	-	4,500.23	4,500.23	4	4,500.23		
Honrado, Cordell	-	-	-				-	1,322.45	1,322.45	1	1,177.25	-	1,322.45	1,322.45	1	1,177.25		
Kasarda, Ross	-	-	-				-	984.58	984.58	2	1,969.16	-	984.58	984.58	2	1,969.16		
Kennebeck, Joseph	-	-	-				-	2,171.79	2,171.79	1	2,171.79	-	2,171.79	2,171.79	1	2,171.79		
Koutrakos, Kristina	-	-	-				-	12,838.40	12,838.40	5	10,467.37	-	12,838.40	12,838.40	5	10,467.37		
Lazar, Aaron	-	-	-				-	1,837.60	1,837.60	1	1,837.60	-	1,837.60	1,837.60	1	1,837.60		
Le, Vu	-	-	-				-	2,337.85	2,337.85	1	2,337.85	-	2,337.85	2,337.85	1	2,337.85		
Ma, Chung	-	-	-				-	16,802.41	16,802.41	4	11,542.96	-	16,802.41	16,802.41	4	11,542.96		
Macknight, Jennifer	-	-	-				-	766.35	766.35	1	766.35	-	766.35	766.35	1	766.35		
Matoua, Katherine	-	-	-				-	10,574.74	10,574.74	2	10,574.74	-	10,574.74	10,574.74	2	10,574.74		
Mattson, Curtis M.	-	-	-				-	1,187.70	1,187.70	1	1,187.70	-	1,187.70	1,187.70	1	1,187.70		
Maxfield, Moses	-	-	-				-	601.85	601.85	1	601.85	-	601.85	601.85	1	601.85		
McClelland, Stephen	-	-	-				-	14,181.67	14,181.67	5	12,861.78	-	14,181.67	14,181.67	5	12,861.78		
Mootz, Scott M.	-	-	-				-	11,339.14	11,339.14	2	11,339.14	-	11,339.14	11,339.14	2	11,339.14		
Mulvin, Thomas C.	-	-	-				11,710.78	5,570.06	17,280.84	5	4,151.20	11,710.78	5,570.06	17,280.84	5	4,151.20		
Muniz, Alex R.	-	-	-				-	5,393.35	5,393.35	4	5,393.35	-	5,393.35	5,393.35	4	5,393.35		
Murphy, James P.	-	-	-				30,863.79	4,103.08	34,966.87	9	4,103.08	30,863.79	4,103.08	34,966.87	9	4,103.08		
Nelson, Laurie	-	-	-				-	503.04	503.04	1	503.04	-	503.04	503.04	1	503.04		
Nguyen, Teresa	-	-	-				-	3,148.85	3,148.85	2	3,148.85	-	3,148.85	3,148.85	2	3,148.85		
Noland, Walker	-	-	-				3,353.99	3,058.12	6,412.11	4	1,802.07	3,353.99	3,058.12	6,412.11	4	1,802.07		
Norfleet, Edward	-	900.30	900.30	1	900.30	X	-	-	-	-	-	-	900.30	900.30	1	900.30		
Oliff, Bryan Greg	-	-	-				-	4,532.08	4,532.08	3	3,527.62	-	4,532.08	4,532.08	3	3,527.62		
Pugliese, Laura	-	-	-				-	2,370.76	2,370.76	2	2,370.76	-	2,370.76	2,370.76	2	2,370.76		
Riley, Edward	-	-	-				-	3,684.79	3,684.79	2	3,684.79	-	3,684.79	3,684.79	2	3,684.79		
Sarki-Hurd, Jummai	-	-	-				14,745.71	4,692.68	19,438.39	6	4,640.81	14,745.71	4,692.68	19,438.39	6	4,640.81		
Schlussler, Daniel C	-	-	-				-	2,545.35	2,545.35	-	-	-	2,545.35	2,545.35	-	-		
Schmitz, Ronald	-	-	-				-	278.78	278.78	-	-	-	278.78	278.78	-	-		
Schreck, Jennifer	-	-	-				-	2,269.79	2,269.79	1	2,269.79	-	2,269.79	2,269.79	1	2,269.79		
Tentor, Larry	-	-	-				-	1,128.02	1,128.02	2	1,128.02	-	1,128.02	1,128.02	2	1,128.02		

Virginia Retirement System  
 Summary of Travel Related Expenses  
 (Board and Committee Members, VRS Executive Staff, and VRS Professional Investment Staff)  
 Fiscal Year-To-Date Through June 2020

Name of Traveler	Current Quarter Costs						Fiscal Year-To-Date Prior Report						Fiscal Year-To-Date				
	Total Travel Expenses			Out of State Travel			Total Travel Expenses			Out of State Travel			Total Travel Expenses			Out of State Travel	
	Sponsor Provided	VRS Provided	Total	Number of Trips	Cost	Purpose	Sponsor Provided	VRS Provided	Total	Number of Trips	Cost	Sponsor Provided	VRS Provided	Total	No. of Trips	Cost	
						Purpose Date Diligence Conference Advisory/Assoc Mtg Mgr Mtg Site Visit Training											
Toporkov, Mykyta	-	-	-				-	513.75	513.75	1	513.75	-	513.75	513.75	1	513.75	
Voeks, Rob	-	-	-				12,902.69	2,076.17	14,978.86	8	2,025.13	12,902.69	2,076.17	14,978.86	8	2,025.13	
Whitlock, Daniel	-	-	-				-	3,751.70	3,751.70	3	3,613.27	-	3,751.70	3,751.70	3	3,613.27	
Wilkinson, Cynthia	-	-	-				-	2,014.28	2,014.28	-	-	-	2,014.28	2,014.28	-	-	
Woodall, Steven	-	-	-				10,167.53	4,636.61	14,804.14	4	4,636.61	10,167.53	4,636.61	14,804.14	4	4,636.61	
Zizzo, Nicholas	-	-	-				-	9,243.05	9,243.05	10	9,243.05	-	9,243.05	9,243.05	10	9,243.05	
Zozulya, Olga	-	-	-				-	4,738.29	4,738.29	5	4,738.29	-	4,738.29	4,738.29	5	4,738.29	
<b>Totals</b>	<b>-</b>	<b>900.30</b>	<b>900.30</b>	<b>1</b>	<b>900.30</b>		<b>140,366.13</b>	<b>305,041.90</b>	<b>445,408.03</b>	<b>169</b>	<b>253,856.32</b>	<b>140,366.13</b>	<b>305,942.20</b>	<b>446,308.33</b>	<b>170</b>	<b>254,756.62</b>	





Schedule of Selected Travel Related Expenses									
(Board and Committee Members, VRS Executive Staff, and VRS Professional Investment Staff)									
Paid During the Quarter Ended June 2020									
Name of Traveler	Voucher Number	Date(s) of Travel	Location	Sponsor	Purpose	Sponsor Provided	VRS Provided	Total	
Board and Committee Members									
Staff									
Norfleet, Edward	98799	11/21-22/19	New York, NY		Meetings with Credit Suisse and Blackrock		900.30	900.30	
<b>Totals</b>						-	<b>900.30</b>	<b>900.30</b>	

**VRS BOARD OF TRUSTEES AND COMMITTEES  
RECORD OF ATTENDANCE & PER DIEMS  
FOR 2Q2020**

Member	Area	Month Paid: Apr-20		Jun-20						Total Days Attended	Per Diem Rate	Per Diem Payments			Total
		4/15/20	4/16/20	6/2/20	6/4/20	6/4/20	6/10/20	6/10/20	6/11/20			Apr	May	Jun	
		IAC	BOT	IAC	DCPAC	A&C	A&P	B&A	BOT						
J BRANDON BELL, II	BOT	X	X	X	X	-	-	X	X	6	\$ 300.00	\$ 600.00	\$ -	\$ 1,200.00	\$ 1,800.00
DIANA F. CANTOR	BOT	X	X	X	-	X	X	-	X	6	300.00	600.00	-	1,200.00	1,800.00
WILLIAM A. GARRETT	BOT	X	X	X	-	X	X	X	X	6	300.00	600.00	-	1,200.00	1,800.00
WALLACE G. HARRIS	BOT	X	X	X	-	-	X	X	X	5	300.00	600.00	-	900.00	1,500.00
W. BRETT HAYES	BOT	X	X	X	X	-	-	-	X	5	300.00	600.00	-	900.00	1,500.00
WILLIAM H. LEIGHTY	BOT	X	X	X	X	X	X	X	X	6	300.00	600.00	-	1,200.00	1,800.00
O'KELLY E. MCWILLIAMS, III	BOT	X	X	X	X	X	X	X	X	6	300.00	600.00	-	1,200.00	1,800.00
JOSEPH W. MONTGOMERY	BOT	X	X	X	-	-	X	-	X	5	300.00	600.00	-	900.00	1,500.00
TROILEN G. SEWARD	BOT	X	X	X	-	-	-	X	X	5	300.00	600.00	-	900.00	1,500.00
ROBERT C. CARLSON	DCPAC	-	-	-	-	-	-	-	-	-	300.00	-	-	-	-
RIVINDRA DEO	DCPAC	-	-	-	-	-	-	-	-	-	300.00	-	-	-	-
SHANNON T. IRVIN	DCPAC	-	-	-	X	-	-	-	-	1	300.00	-	-	300.00	300.00
RICK LARSON	DCPAC	-	-	-	X	-	-	-	-	1	300.00	-	-	300.00	300.00
BRENDA O. MADDEN	DCPAC	-	-	-	X	-	-	-	-	1	300.00	-	-	300.00	300.00
KATHERINE T. SEAY	DCPAC	-	-	-	X	-	-	-	-	1	300.00	-	-	-	-
DAVID A. WINTER	DCPAC	-	-	-	X	-	-	-	-	1	300.00	-	-	300.00	300.00
DEBORAH ALLEN-HEWITT	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
MICHAEL R. BEASLEY	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
THEODORE ECONOMOU (1)	IAC	X	-	X	-	-	-	-	-	2	-	-	-	-	-
THOMAS S. GAYNER	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
LAWRENCE E KOCHARD	IAC	X	-	X	-	-	-	-	X	3	300.00	300.00	-	600.00	900.00
NANCY G. LEAKE	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
WILBERT BRYAN LEWIS	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
ROD SMYTH	IAC	X	-	X	-	-	-	-	-	2	300.00	300.00	-	300.00	600.00
WILLIAM H. WEST	IAC	X	-	-	-	-	-	-	-	1	300.00	300.00	-	-	300.00
												<b>\$7,800.00</b>	<b>\$ -</b>	<b>\$13,200.00</b>	<b>\$21,000.00</b>


Number Attending	18	9	17	9	4	6	6	10							
Total Days per Diem Paid (Control Total)	17	9	16	8	2	6	2	10	70	x \$300				=	<b>21,000.00</b>

(1) This individual waived the payment of stipend and per diem payments for meetings attended effective 8/2/15.  
(2) This individual waived the payment of per diem payments for meetings attended.

X = Present



P.O. Box 2500, Richmond, Virginia 23218-2500  
Toll-free: 1-888-VARETIR (827-3847)  
Website: [www.varetire.org](http://www.varetire.org)

Date: September 11, 2020  
To: Trish Bishop, Director  
From: Jennifer Schreck, Internal Audit Director   
Subject: Review of 2020 Agency Performance Outcomes and Operational Measures

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As part of our annual process, Internal Audit has reviewed the status of the 2020 Agency Performance Outcomes (APOs) and Operational Measures (OMs), as set forth by management for the fiscal year ended June 30, 2020. The purpose of our review was to obtain reasonable, but not absolute assurance that the status of such outcomes and measures was fairly represented in management's status reports.

Based upon our review of available documentation and discussions with various VRS personnel, nothing came to our attention to cause us to question the representations set forth by management with respect to either the APOs or the OMs. Accordingly, we have no reason to believe that the APOs and OMs were not appropriately represented as satisfied for the fiscal year ended June 30, 2020.


I would like to commend the management team and staff for their accomplishments this past year. Please share this information with the Administration and Personnel Committee as well as the Board of Trustees, as you deem appropriate.



**Date:** September 11, 2020

**To:** Paula Reid, Director of Human Resources

**CC:** Trish Bishop, Director  
Ron Schmitz, Chief Investment Officer

**From:** Jennifer Schreck, Internal Audit Director 

**Subject:** **Review of FY2020 Investment Incentive Compensation**

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Internal Audit has reviewed the proposed Investment Incentive Compensation for the fiscal year ended June 30, 2020. The Investment Incentive Compensation amount, in aggregate, is **\$3,351,571.50**, where a qualitative multiplier of **1.0** is used for the Chief Investment Officer. We found this aggregate amount, as well as the proposed payment amounts, were accurately computed in accordance with the Investment Professionals' Pay Program, dated November 14, 2018.

Please share this information with the Administration and Personnel Committee as well as the Board of Trustees, as you deem appropriate.

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## AUDIT AND COMPLIANCE COMMITTEE

### Polling for 2021 Proposed Meeting Dates

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The Board of Trustees has confirmed its 2021 meeting dates.

Per its charter, the Audit and Compliance Committee meets at least once per quarter, but will meet more often if deemed necessary.

The Audit Director will formally poll the members in advance of the December Committee meeting regarding availability relative to the proposed dates to the right.

Based on that polling, the proposed Committee meeting dates for the next calendar year will be presented to the Committee in December for its consideration and final approval.

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### Audit and Compliance Committee Proposed Meeting Dates

The Committee generally schedules its regular meetings sometime during the week in advance of the scheduled Board meeting for the months of March, June, September and December. Considering the confirmed Board meeting schedule below, and the known agenda items for each meeting, the Audit Director will be polling for availability on or around the following dates.

<u>Day</u>	<u>Date</u>	<u>Time</u>
Tuesday	March 16, 2021	2:00 p.m.
Thursday	June 3, 2021	2:00 p.m.
Thursday	September 16, 2021	2:00 p.m.
Thursday	December 9, 2021	10:00 a.m.

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### Confirmed VRS Board of Trustee 2021 Meetings Dates

<u>Day</u>	<u>Date</u>	<u>Time</u>
Tuesday	February 16, 2021	1:00 p.m.
Tuesday	March 23, 2021	Board Retreat – to be determined
Wednesday	March 24, 2021	Board Retreat – to be determined
Tuesday	April 20, 2021	1:00 p.m.
Thursday	June 10, 2021	1:00 p.m.
Thursday	July 15, 2021	1:00 p.m. (to be held if necessary)
Tuesday	September 21, 2021	1:00 p.m.
Thursday	October 14, 2021	1:00 p.m.
Tuesday	November 16, 2021	1:00 p.m.
Thursday	December 9, 2021	1:00 p.m.

# Closed Session

# REVIEW OF AUDIT DIRECTOR'S PERFORMANCE

## Authority

Per its Charter, the Committee is charged with reviewing and making recommendations to the Board regarding the performance of the Audit Director. The Committee typically conducts such a review at its September meeting, supported by the Human Resources Director.

## Results

The various Internal Audit Annual Progress Reports presented in today's meeting book highlight the Department's and Audit Director's activities for the year under review.

## Executive Pay Plan

The Audit Director falls under the Board approved Executive Pay Plan which provides guidelines regarding the annual salary and bonus amounts provided to the three positions reporting directly to the Board.

The Audit Director's compensation components include a base salary, which falls within the established pay range of the Administrative Pay plan and may be adjusted based on market study findings; supplemental pay, as determined by the Board; performance bonus, and gainsharing.

In accordance with the Freedom of Information Act, the Committee will need to go into closed session to discuss the performance of the Audit Director. The necessary wording to convene and certify a closed session is provided below.

Any recommendations agreed to by the Committee during the closed session must be voted upon and approved in open session to be communicated to the Board.

## To Convene Closed Meeting

"I move that the Audit and Compliance Committee of the Virginia Retirement System Board of Trustees convene a closed meeting under the Virginia Freedom of Information Act to evaluate the performance of the current Internal Audit Director pursuant to the personnel exemption at *Code of Virginia § 2.2-3711(A)(1)*."

**[Second needed]**

**[Roll call vote needed]**

## Certification after Closed Meeting

"I move the following resolution:

WHEREAS, the Audit and Compliance Committee of the Virginia Retirement System Board of Trustees convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and

WHEREAS, *Code of Virginia § 2.2-3712* requires a certification by this Committee that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED, that the Committee certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements under this chapter were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion by which the closed meeting was convened were heard, discussed or considered by the Committee."

**[Second needed]**

**[Roll call vote needed]**