

# Vermont State Employees' Retirement System

**Governmental Accounting Standards Board (GASB)  
Statement 75 Actuarial Valuation and Review of Other  
Postemployment Benefits (OPEB) Measured at  
June 30, 2023**



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June 27, 2023

Office of the Vermont State Treasurer  
109 State Street  
Montpelier, Vermont 05609

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2022 under Governmental Accounting Standards Board Statement No. 75 Reporting for Fiscal Year Ending June 30, 2023. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Liability (NOL) as of June 30, 2022, and analyzes the preceding year's experience. In addition, we have calculated the Actuarially Determined Contribution for the fiscal year ending June 30, 2024. This report was based on the census data and financial information provided by the Vermont State Employees' Retirement System, and the terms of the Plan. The actuarial calculations were completed under the supervision of Yori Rubinson, FSA MAAA, Vice President and Retiree Health Actuary.

If you have any questions, please feel free to call me. We look forward to discussing this material with you at your convenience.

Sincerely,

Segal

A handwritten signature in cursive script that reads "Daniel A. Levin".

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Daniel A. Levin, FSA MAAA FCA CEBS  
Senior Vice President

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# Actuarial Valuation Summary

## Purpose and Basis

This report presents the results of our actuarial valuation of Vermont State Employees' Retirement System (VSERS) OPEB plan as of June 30, 2022, required by Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*. The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. This valuation is based on:

- The benefit provisions of VSERS, as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2021, provided by the Office of the State Treasurer;
- The assets of the Plan as of June 30, 2022, provided by the Office of the State Treasurer; and
- Economic assumptions regarding future salary increases and investment earnings and other demographic assumptions, regarding employee terminations, retirement, death, etc. as shown in the Actuarial Experience Study (as prepared by Segal) dated and adopted by VSERS on September 24, 2020 for the June 30, 2020 valuation and in effect as of the June 30, 2022 measurement date.

## Highlights of the Valuation

### *Accounting and Financial Reporting*

- The Net OPEB Liability (NOL) as of June 30, 2022 is \$802,517,251, a decrease of \$670,556,030, from the prior valuation NOL of \$1,473,073,282. The difference between actual and expected unfunded actuarial accrued liabilities was the net effect of several factors:
  - Combined actuarial experience losses decreased the NOL by \$24,243,946. These were comprised of \$240,955 in losses due to differences between expected and actual experience on liabilities resulting from demographic changes and actual 2022 benefit payments that were different from expected and \$24,002,991 in losses due to differences between expected and actual earnings on investments.

## Section 1: Actuarial Valuation Summary

- Valuation assumption changes decreased the NOL by \$746,859,265. This was primarily the result of increasing the discount rate from 2.41% to 7.00%. Other changes include updating the valuation-year per capita health costs and retiree contribution rates, increasing the percentage of active employees eligible to retire and receive the maximum premium subsidy who are assumed to participate in the plan from 80% to 85%, decreasing the percentage of active employees eligible to retire and receive less than the maximum premium subsidy who are assumed to participate in the plan from 80% to 50%, decreasing the percentage of eligible future retirees covering a spouse that are assumed to elect the Premium Reduction Option from 35% to 25%, and decreasing the percentage of future female retirees assumed to have an eligible spouse who also opts for health coverage from 60% to 55%. The assumption changes are summarized in Exhibit II of Section 3.
- Plan changes decreased the Net OPEB Liability by \$11,431,218. Changes were made to the pension eligibility requirements based on Act 114. The current plan of benefits is summarized in Exhibit III of Section 3.
- As of June 30, 2022, the ratio of assets to the Total OPEB Liability (the funded ratio) is 11.55%. This is based on the market value of assets at this point in time.
- The Annual OPEB Expense is -\$49,553,002 for the year ending June 30, 2022. The expense was \$51,634,766 last year.

### **Funding**

- Segal strongly recommends an actuarial funding policy that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy set in the Vermont State Pension Code meets this standard. Section 479a, subsection (e), of Title 3, Chapter 16, Subchapter 1, Vermont Statutes Annotated calls for annual payments on the unfunded actuarial accrued liability to be made over a closed period ending on June 30, 2048. The amount of each annual payment is calculated assuming that the amortization period will remain closed and that the amortization amount will increase annually at the rate of 3.5% over the preceding year.
- For the fiscal year ending June 30, 2023, the ADC is \$64,577,985. The Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2021 assuming the System contributes the amount of expected benefit payments for the year ending June 30, 2022. The Unfunded Actuarially Accrued Liability was amortized using a closed 26 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.50%.
- For the fiscal year ending June 30, 2024, the ADC is \$67,146,946. The Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2022 assuming the System contributes the Actuarial Determined Contribution for the year ending June 30, 2023. The Unfunded Actuarially Accrued Liability was amortized using a closed 25 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.50%.

## Section 1: Actuarial Valuation Summary

### Summary of Key Valuation Results

|   | June 30, 2022      | June 30, 2021      |
|---|--------------------|--------------------|
| • Total OPEB Liability <sup>1</sup>                                   | \$907,317,295      | \$1,593,341,095    |
| • Plan Fiduciary Net Position (Assets)                                | <u>104,800,044</u> | <u>120,267,813</u> |
| • Net OPEB Liability  | \$802,517,251      | \$1,473,073,282    |
| • Plan Fiduciary Net Position as a percentage of Total OPEB Liability | 11.55%             | 7.55%              |

<sup>1</sup> The discount rate was 7.00% for June 30, 2022 and 2.41% for June 30, 2021.

|                       | For Year Ending<br>June 30, 2023 | For Year Ending<br>June 30, 2022 |
|-----------------------|----------------------------------|----------------------------------|
| • Annual OPEB Expense | -\$49,553,002                    | \$51,634,766                     |

|  | For Year Ending<br>June 30, 2022 | For Year Ending<br>June 30, 2021 |
|--|----------------------------------|----------------------------------|
| • Rate of Return                       | 2.23%                            | 3.50%                            |
| • Actuarially Determined Contributions | \$109,708,031                    | \$90,025,812                     |
| • Actual Contributions                 | 35,170,057                       | 90,462,714                       |
| • Benefit Payments                     | 35,055,680                       | 35,560,776                       |

## Section 1: Actuarial Valuation Summary

### Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to defining future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal relies on a number of input items. These include:

|                              |  |
|------------------------------|--|
| <b>Plan of benefits</b>      | Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.  |
| <b>Participant data</b>      | An actuarial valuation for a plan is based on data provided to the actuary by the Office of the State Treasurer. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.  |
| <b>Assets</b>                | The valuation is based on the market value of assets as of the valuation date, as provided by the Office of the State Treasurer.   |
| <b>Actuarial assumptions</b> | In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong. |

## Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

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The actuarial valuation is prepared for use by the Office of the State Treasurer. It includes information for compliance with accounting standards and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.

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If the Office of the State Treasurer is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

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An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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Sections of this report include actuarial results that are unrounded, but that does not imply precision.

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Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.

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Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.

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While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

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Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. The Trustees should notify Segal immediately of any questions or concerns about the final content.

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As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

# Section 1: Actuarial Valuation Summary

## **Actuarial Certification**

June 27, 2023

This is to certify that Segal has conducted an actuarial valuation of certain benefit obligations of Vermont State Employees' Retirement System's other postemployment benefit programs as of June 30, 2022, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements 75 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits and reliance on participant, premium, claims and expense data provided by the Office of the State Treasurer or from vendors employed by the Office of the State Treasurer. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience or rates of return on assets differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential change of such future measurements except where noted.

To the best of my knowledge, this report is complete and accurate and in my opinion presents the information necessary to comply with GASB Statements 75 with respect to the benefit obligations addressed. The signing actuary is a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and meets the "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.



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Yori Rubinson, FSA MAAA

Vice President and Retiree Health Actuary

# Valuation Results

## General Information about the OPEB Plan

### Plan Description

Pursuant to contractual agreement and policy, VSERS provides postemployment healthcare benefits to eligible VSERS employees who retire from the System. Vermont Statute Title 3, Chapter 16 assigns the authority to VSERS to establish and amend the benefit provisions of the plan and to establish maximum obligations of plan members to contribute to the plan. The VSERS Board of Trustees is authorized to establish contribution rates of System employees and retirees, and they are set as part of the collective bargaining process.

At June 30, 2021, the Vermont State Employees' Retirement System membership consisted of the following:

|   | <b>June 30, 2021</b> |
|---|----------------------|
| Retired members or beneficiaries currently receiving benefits | 5,484                |
| Active members  | <u>8,448</u>         |
| Total   | 13,932               |

## Section 2: Valuation Results

### Net OPEB Liability

| Components of the Net OPEB Liability                                    | June 30, 2022      | June 30, 2021      |
|---|--------------------|--------------------|
| Total OPEB Liability  | \$907,317,295      | \$1,593,341,095    |
| Plan Fiduciary Net Position   | <u>104,800,044</u> | <u>120,267,813</u> |
| Net OPEB Liability  | \$802,517,251      | \$1,473,073,282    |
| Plan Fiduciary Net Position as a percentage of the Total OPEB Liability | 11.55%             | 7.55%              |

The Net OPEB Liability was measured as of June 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total OPEB Liability was determined from actuarial valuations using data as of June 30, 2021 and 2020, respectively.

## Section 2: Valuation Results

The Total OPEB Liability was measured by an actuarial valuation using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

|                                      | June 30, 2022  | June 30, 2021  |
|--------------------------------------|--|--|
| Salary increases                     | Varies by age  | Varies by age  |
| Discount rate                        | 7.00%  | 2.41%  |
| Investment rate of return            | 7.00%  | 7.00%  |
| Healthcare cost trend rates          |  |  |
| Non-Medicare                         | 7.12% graded to 4.50% over 12 years  | 6.70% graded to 4.50% over 10 years  |
| Medicare                             | 6.50% graded to 4.50% over 12 years  | 6.00% graded to 4.50% over 12 years  |
| Increase to Retiree Contributions    | Equal to health trend  | Equal to health trend  |
| Mortality rates                      |  |  |
| Pre-retirement Mortality             |  |  |
| Groups A/F/F*/DC                     | 60% of PubG-2010 General Employee Headcount-Weighted Above Median, 40% of PubG-2010 General Employee Headcount-Weighted with generational projection using scale MP-2019           | 60% of PubG-2010 General Employee Headcount-Weighted Above Median, 40% of PubG-2010 General Employee Headcount-Weighted with generational projection using scale MP-2019           |
| Group C                              | PubS-2010 Public Safety Employee Headcount-Weighted with generational projection using scale MP-2019   | PubS-2010 Public Safety Employee Headcount-Weighted with generational projection using scale MP-2019   |
| Group D                              | 70% of PubG-2010 General Employee Headcount-Weighted Above Median, 30% of PubG-2010 General Employee with generational projection using scale MP-2019                              | 70% of PubG-2010 General Employee Headcount-Weighted Above Median, 30% of PubG-2010 General Employee with generational projection using scale MP-2019                              |
| Post-retirement Mortality - Retirees |  |  |
| Groups A/F/F*/DC                     | 109% of PubG-2010 General Healthy Retiree Headcount-Weighted with generational projection using scale MP-2019  | 109% of PubG-2010 General Healthy Retiree Headcount-Weighted with generational projection using scale MP-2019  |
| Group C                              | 40% of PubS-2010 Public Safety Retiree Headcount-Weighted Above Median, 60% of PubS-2010 Public Safety Retiree Headcount-Weighted with generational projection using scale MP-2019 | 40% of PubS-2010 Public Safety Retiree Headcount-Weighted Above Median, 60% of PubS-2010 Public Safety Retiree Headcount-Weighted with generational projection using scale MP-2019 |

## Section 2: Valuation Results

|                                     |  |  |
|-------------------------------------|--|--|
| Group D                             | PubG-2010 General Healthy Retiree Headcount-Weighted Above Median with generational projection using scale MP-2019   | PubG-2010 General Healthy Retiree Headcount-Weighted Above Median with generational projection using scale MP-2019   |
| Post-Retirement Mortality - Spouses |  |  |
| Groups A/F/F*/DC                    | Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019   | Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019   |
| Group C                             | 40% of Pub-2010 Contingent Survivor Headcount-Weighted Above Median, 60% of Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019 | 40% of Pub-2010 Contingent Survivor Headcount-Weighted Above Median, 60% of Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019 |
| Group D                             | Pub-2010 Contingent Survivor Headcount-Weighted Above Median with generational projection using MP-2019  | Pub-2010 Contingent Survivor Headcount-Weighted Above Median with generational projection using MP-2019  |
| Disabled Mortality                  | PubNS-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table with generational projection using scale MP-2019   | PubNS-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table with generational projection using scale MP-2019   |

Detailed information regarding all actuarial assumptions can be found in Section 3, Exhibit II.

## Section 2: Valuation Results

### Determination of Discount Rate and Investment Rates of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the OPEB plan's target asset allocation as of June 30, 2022 are summarized in the following table:

| Asset Class                      | Target Allocation | Long-Term Expected Real Rate of Return* |
|----------------------------------|-------------------|---|
| Passive Global Equities          | 24.00%            | 4.30%                                   |
| Active Global Equities           | 5.00%             | 4.30%                                   |
| Large Cap US Equities            | 4.00%             | 3.25%                                   |
| Small/Mid Cap US Equities        | 3.00%             | 3.75%                                   |
| Non-US Developed Market Equities | 7.00%             | 5.00%                                   |
| Private Equity                   | 10.00%            | 6.50%                                   |
| Emerging Market Debt             | 4.00%             | 3.50%                                   |
| Private and alternative Credit   | 10.00%            | 4.75%                                   |
| Non-Core Real Estate             | 4.00%             | 6.00%                                   |
| Core Fixed Income                | 19.00%            | 0.00%                                   |
| Core Real Estate                 | 3.00%             | 3.50%                                   |
| US TIPS                          | 3.00%             | -0.50%                                  |
| Infrastructure/Farmland          | <u>4.00%</u>      | 4.25%                                   |
|                                  | 100.00%           |   |

\* Calculated as the Arithmetic Rates of Return minus the Rate of Inflation, as provided by the Vermont State Treasurers' Office

The target allocation above is based on the asset allocation used by the Vermont State Employees' Retirement System Pension Fund.

The System's Board established the Vermont State Employees' Postemployment Benefits Trust Fund (the Trust) in 2005. The Trust was created for the sole purpose of accepting irrevocable contributions from the System in order to provide postemployment health insurance benefits to current and future eligible retirees of the System in accordance with the terms of the healthcare plan.

## Section 2: Valuation Results

### ***Discount Rate***

The discount rate used to measure the Total OPEB Liability was 7.00%. In accordance with paragraph 39 of GASB 75, professional judgement was applied to determine that the System's projected Fiduciary Net Position exceeds projected benefit payments for current active and inactive members for all years. Our analysis was based on the expectation that the employer will continue to contribute an amount at least equal to the actuarially determined contribution, which is comprised of an employer normal cost payment and a payment to reduce the unfunded liability to zero by June 30, 2048, in accordance with Vermont statute. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability.

## Section 2: Valuation Results

### Sensitivity

The following presents the NOL of Vermont State Employees' Retirement System as well as what the Vermont State Employees' Retirement System's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate. Also, shown is the NOL as if it were calculated using healthcare cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current healthcare trend rates.

|                            | <b>1% Decrease<br/>(6.00%)</b>                             | <b>Current<br/>Discount Rate<br/>(7.00%)</b>        | <b>1% Increase<br/>(8.00%)</b>                             |
|----------------------------|--|---|--|
| Net OPEB Liability (Asset) | \$913,625,259  | \$802,517,251                                       | \$709,898,310  |
|                            | <b>1% Decrease in<br/>Health Care Cost<br/>Trend Rates</b> | <b>Current<br/>Health Care Cost<br/>Trend Rates</b> | <b>1% Increase in<br/>Health Care Cost<br/>Trend Rates</b> |
| Net OPEB Liability (Asset) | \$702,767,425  | \$802,517,251                                       | \$925,079,547  |

## Section 2: Valuation Results

### Schedule of Changes in Net OPEB Liability<sup>1</sup>

|   | June 30, 2022        | June 30, 2021          | June 30, 2020          | June 30, 2019          | June 30, 2018          | June 30, 2017          |
|---|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| <b>Total OPEB Liability</b>   |                      |                        |                        |                        |                        |                        |
| Service cost  | \$67,475,631         | \$63,317,681           | \$45,691,441           | \$44,590,011           | \$52,326,222           | \$66,840,919           |
| Interest  | 39,605,777           | 34,087,907             | 45,754,106             | 49,040,451             | 54,400,554             | 46,867,620             |
| Change of benefit terms   | -11,431,218          | --                     | --                     | --                     | -20,232,937            | --                     |
| Differences between expected and actual experience                      | 240,955              | 4,953,124              | 20,360,909             | 6,284,223              | 7,140,411              | --                     |
| Changes of assumptions  | -746,859,265         | 43,572,802             | 127,632,837            | -25,550,795            | -303,321,519           | -190,150,328           |
| Benefit payments, including refunds of member contributions             | <u>-35,055,680</u>   | <u>-35,560,776</u>     | <u>-35,767,740</u>     | <u>-35,340,403</u>     | <u>-34,559,465</u>     | <u>-33,346,278</u>     |
| Net change in Total OPEB Liability                                      | -\$686,023,800       | \$110,370,738          | \$203,671,553          | \$39,023,487           | -\$244,246,734         | -\$109,788,066         |
| Total OPEB Liability – beginning  | <u>1,593,341,095</u> | <u>1,482,970,357</u>   | <u>1,279,298,804</u>   | <u>1,240,275,317</u>   | <u>1,484,522,051</u>   | <u>1,594,310,117</u>   |
| Total OPEB Liability – ending   | <u>\$907,317,295</u> | <u>\$1,593,341,095</u> | <u>\$1,482,970,357</u> | <u>\$1,279,298,804</u> | <u>\$1,240,275,317</u> | <u>\$1,484,522,051</u> |
| <b>Plan Fiduciary Net Position</b>                                      |                      |                        |                        |                        |                        |                        |
| Contributions – employer  | \$35,170,057         | \$90,462,714           | \$38,599,577           | \$63,749,803           | \$32,956,898           | \$33,122,887           |
| Contributions – employee  | --                   | --                     | --                     | --                     | --                     | --                     |
| Net investment income   | -15,580,304          | 7,775,040              | 3,029,909              | 1,554,329              | 872,659                | 1,372,446              |
| Benefit payments, including refunds of member contributions             | -35,055,680          | -35,560,776            | -35,767,740            | -35,340,403            | -34,559,465            | -33,346,278            |
| Administrative expense  | -1,842               | -1,873                 | -1,785                 | -1,897                 | -1,049                 | --                     |
| Other   | --                   | --                     | --                     | --                     | --                     | --                     |
| Net change in Plan Fiduciary Net Position                               | -\$15,467,769        | \$62,675,105           | \$5,859,961            | \$29,961,832           | -\$730,957             | \$1,149,055            |
| Plan Fiduciary Net Position – beginning                                 | <u>120,267,813</u>   | <u>57,592,708</u>      | <u>51,732,747</u>      | <u>21,770,915</u>      | <u>22,501,872</u>      | <u>21,352,817</u>      |
| Plan Fiduciary Net Position – ending                                    | <u>\$104,800,044</u> | <u>\$120,267,813</u>   | <u>\$57,592,708</u>    | <u>\$51,732,747</u>    | <u>\$21,770,915</u>    | <u>\$22,501,872</u>    |
| Net OPEB Liability – ending   | <u>\$802,517,251</u> | <u>\$1,473,073,282</u> | <u>\$1,425,377,649</u> | <u>\$1,227,566,057</u> | <u>\$1,218,504,402</u> | <u>\$1,462,020,179</u> |
| Plan Fiduciary Net Position as a percentage of the Total OPEB Liability | 11.55%               | 7.55%                  | 3.88%                  | 4.04%                  | 1.76%                  | 1.52%                  |
| Covered payroll   | \$579,628,736        | \$578,701,831          | \$554,291,862          | \$548,512,479          | \$531,542,782          | \$497,200,588          |
| Plan Net OPEB Liability as percentage of covered payroll                | 138.45%              | 254.55%                | 257.15%                | 223.80%                | 229.24%                | 294.05%                |

<sup>1</sup> The above information is required beginning in 2017. A full 10-year trend will be compiled in future years.

## Section 2: Valuation Results

### Notes to Schedule:

- Benefit changes:* Changes were made to the pension eligibility requirements based on Act 114.
- Changes of assumptions:* The discount rate was increased from 2.41% to 7.00%.
- The valuation-year per capita health costs and retiree contribution rates were updated.
- The percentage of active employees eligible to retire and receive the maximum premium subsidy who are assumed to participate in the plan increased from 80% to 85%. The percentage of active employees eligible to retire and receive less than the maximum premium subsidy who are assumed to participate in the plan decreased from 80% to 50%.
- The percentage of eligible future retirees covering a spouse that are assumed to elect the Premium Reduction Option decreased from 35% to 25%.
- The percentage of future female retirees assumed to have an eligible spouse who also opts for health coverage decreased from 60% to 55%.
- Retirement rates were updated for Group C to reflect the best estimate of anticipated future experience as a result of the various plan provision changes contained in Act 114.

## Section 2: Valuation Results

### Deferred Outflows of Resources and Deferred Inflows of Resources

| Reporting Date for Employer under GASB 75  | June 30, 2023     | June 30, 2022     |
|--|-------------------|-------------------|
| Measurement Date   | June 30, 2022     | June 30, 2021     |
| <b>Deferred Outflows of Resources</b>  |                   |                   |
| Changes of assumptions or other inputs   | \$108,143,789     | \$131,108,752     |
| Net difference between projected and actual earnings on OPEB plan investments  | 18,614,090        | 0                 |
| Difference between expected and actual experience in the Total OPEB Liability  | <u>21,402,519</u> | <u>26,360,982</u> |
| Total Deferred Outflows of Resources   | \$148,160,398     | \$157,469,734     |
| <b>Deferred Inflows of Resources</b>   |                   |                   |
| Changes of assumptions or other inputs   | \$801,820,628     | \$224,862,091     |
| Net difference between projected and actual earnings on OPEB plan investments  | 0                 | 434,902           |
| Difference between expected and actual experience in the Total OPEB Liability  | <u>0</u>          | <u>0</u>          |
| Total Deferred Inflows of Resources  | \$801,820,628     | \$225,296,993     |
| <b>Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:</b> |                   |                   |
| Reporting Date for Employer under GASB 75 Year Ended June 30:  |                   |                   |
| 2023   | N/A               | -\$39,863,832     |
| 2024   | -\$136,933,318    | -40,014,801       |
| 2025   | -127,679,510      | -30,760,993       |
| 2026   | -97,575,861       | -657,344          |
| 2027   | -71,937,306       | 24,981,211        |
| 2028   | -86,283,785       | 15,435,330        |
| Thereafter   | -133,250,450      | 3,053,170         |

## Section 2: Valuation Results

### Schedule of Recognition of Change in Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total OPEB Liability

| Reporting Date<br>for Employer<br>under GASB 75<br>Year Ended<br>June 30 | Differences<br>between<br>Expected and<br>Actual<br>Experience | Recognition<br>Period<br>(Years) | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | Thereafter    |
|--|--|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2018   | \$0  | 7.62                             | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           |
| 2019   | 7,140,411  | 7.62                             | 937,062       | 937,062       | 937,062       | 580,978       | 0             | 0             | 0             |
| 2020   | 6,284,223  | 7.54                             | 833,451       | 833,451       | 833,451       | 833,451       | 450,066       | 0             | 0             |
| 2021   | 20,360,909   | 7.45                             | 2,733,008     | 2,733,008     | 2,733,008     | 2,733,008     | 2,733,008     | 1,229,853     | 0             |
| 2022   | 4,953,124  | 7.47                             | 663,069       | 663,069       | 663,069       | 663,069       | 663,069       | 663,069       | 311,641       |
| 2023   | 240,955  | 7.34                             | <u>32,828</u> | <u>32,828</u> | <u>32,828</u> | <u>32,828</u> | <u>32,828</u> | <u>32,828</u> | <u>43,987</u> |
| Net increase (decrease) in OPEB expense                                  |  |                                  | \$5,199,418   | \$5,199,418   | \$5,199,418   | \$4,843,334   | \$3,878,971   | \$1,925,750   | \$355,628     |

## Section 2: Valuation Results

### Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Assumption Changes

| Reporting Date<br>for Employer<br>under GASB 75<br>Year Ended<br>June 30 | Assumption<br>Changes | Recognition<br>Period<br>(Years) | 2023                | 2024                | 2025                | 2026                | 2027                | 2028                | Thereafter          |
|--|-----------------------|----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 2018   | -\$190,150,328        | 7.62                             | -\$24,954,111       | -\$24,954,111       | -\$15,471,549       | \$0                 | \$0                 | \$0                 | \$0                 |
| 2019   | -303,321,519          | 7.62                             | -39,805,974         | -39,805,974         | -39,805,974         | -24,679,703         | 0                   | 0                   | 0                   |
| 2020   | -25,550,795           | 7.54                             | -3,388,700          | -3,388,700          | -3,388,700          | -3,388,700          | -1,829,895          | 0                   | 0                   |
| 2021   | 127,632,837           | 7.45                             | 17,131,924          | 17,131,924          | 17,131,924          | 17,131,924          | 17,131,924          | 7,709,369           | 0                   |
| 2022   | 43,572,802            | 7.47                             | 5,833,039           | 5,833,039           | 5,833,039           | 5,833,039           | 5,833,039           | 5,833,039           | 2,741,529           |
| 2023   | -746,859,265          | 7.34                             | <u>-101,751,943</u> | <u>-101,751,943</u> | <u>-101,751,943</u> | <u>-101,751,943</u> | <u>-101,751,943</u> | <u>-101,751,943</u> | <u>-136,347,607</u> |
| Net increase (decrease) in OPEB expense                                  |                       |                                  | -\$146,935,765      | -\$146,935,765      | -\$137,453,203      | -\$106,855,383      | -\$80,616,875       | -\$88,209,535       | -\$133,606,078      |

## Section 2: Valuation Results

### Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on OPEB Plan Investments

| Reporting Date for Employer under GASB 75 Year Ended June 30 | Differences between Projected and Actual Earnings | Recognition Period (Years) | 2023             | 2024             | 2025             | 2026             | 2027             | 2028     | Thereafter |
|--|---|----------------------------|------------------|------------------|------------------|------------------|------------------|----------|------------|
| 2018   | \$220,638   | 5.00                       | \$0              | \$0              | \$0              | \$0              | \$0              | \$0      | \$0        |
| 2019   | 754,846   | 5.00                       | 150,969          | 0                | 0                | 0                | 0                | 0        | 0          |
| 2020   | 1,143,771   | 5.00                       | 228,754          | 228,754          | 0                | 0                | 0                | 0        | 0          |
| 2021   | 690,434   | 5.00                       | 138,087          | 138,087          | 138,087          | 0                | 0                | 0        | 0          |
| 2022   | -1,822,049  | 5.00                       | -364,410         | -364,410         | -364,410         | -364,410         | 0                | 0        | 0          |
| 2023   | 24,002,991  | 5.00                       | <u>4,800,599</u> | <u>4,800,598</u> | <u>4,800,598</u> | <u>4,800,598</u> | <u>4,800,598</u> | <u>0</u> | <u>0</u>   |
| Net increase (decrease) in OPEB expense                      |   |                            | \$4,953,999      | \$4,803,029      | \$4,574,275      | \$4,436,188      | \$4,800,598      | \$0      | \$0        |

## Section 2: Valuation Results

### Total Increase (Decrease) in OPEB Expense

| Reporting Date for Employer under GASB 75 Year Ended June 30 | Total Increase (Decrease) in OPEB Expense | 2023               | 2024               | 2025               | 2026               | 2027               | 2028                | Thereafter          |
|--|---|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| 2018   | -\$189,929,690                            | -\$24,954,111      | -\$24,954,111      | -\$15,471,549      | \$0                | \$0                | \$0                 | \$0                 |
| 2019   | -295,426,262                              | -38,717,943        | -38,868,912        | -38,868,912        | -24,098,725        | 0                  | 0                   | 0                   |
| 2020   | -18,122,801                               | -2,326,495         | -2,326,495         | -2,555,249         | -2,555,249         | -1,379,829         | 0                   | 0                   |
| 2021   | 148,684,180                               | 20,003,019         | 20,003,019         | 20,003,019         | 19,864,932         | 19,864,932         | 8,939,222           | 0                   |
| 2022   | 46,703,877                                | 6,131,698          | 6,131,698          | 6,131,698          | 6,131,698          | 6,496,108          | 6,496,108           | 3,053,170           |
| 2023   | -722,615,319                              | <u>-96,918,516</u> | <u>-96,918,517</u> | <u>-96,918,517</u> | <u>-96,918,517</u> | <u>-96,918,517</u> | <u>-101,719,115</u> | <u>-136,303,620</u> |
| Net increase (decrease) in OPEB expense                      |   | -\$136,782,348     | -\$136,933,318     | -\$127,679,510     | -\$97,575,861      | -\$71,937,306      | -\$86,283,785       | -\$133,250,450      |

## Section 2: Valuation Results

### OPEB Expense

| Reporting Date for Employer under GASB 75  | June 30, 2023        | June 30, 2022       |
|--|----------------------|---------------------|
| Measurement Date   | June 30, 2022        | June 30, 2021       |
| <b>Components of OPEB Expense</b>  |                      |                     |
| Service cost   | \$67,475,631         | \$63,317,681        |
| Interest on the Total OPEB Liability   | 39,605,777           | 34,087,907          |
| Current-period benefit changes   | -11,431,218          | - -                 |
| Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability | 32,828               | 663,069             |
| Expensed portion of current-period changes of assumptions or other inputs  | -101,751,943         | 5,833,039           |
| Member contributions   | - -                  | - -                 |
| Projected earnings on plan investments   | -8,422,686           | -5,952,992          |
| Expensed portion of current-period differences between actual and projected earnings on plan investments         | 4,800,599            | -364,409            |
| Administrative expense   | 1,842                | 1,873               |
| Other  | - -                  | - -                 |
| Recognition of beginning of year deferred outflows of resources as OPEB expense                                  | 28,649,363           | 22,197,383          |
| Recognition of beginning of year deferred inflows of resources as OPEB expense                                   | <u>-68,513,195</u>   | <u>-68,148,785</u>  |
| <b>OPEB Expense</b>  | <b>-\$49,553,002</b> | <b>\$51,634,766</b> |

## Section 2: Valuation Results

### Schedule of Contributions<sup>1</sup>

| Year Ended<br>June 30 | Actuarially<br>Determined<br>Contributions | Contributions in<br>Relation to the<br>Actuarially<br>Determined<br>Contributions | Contribution<br>Deficiency /<br>(Excess) | Covered Payroll | Contributions as<br>a Percentage of<br>Covered Payroll |
|-----------------------|--|---|--|-----------------|--|
| 2017                  | \$71,832,832 <sup>2</sup>                  | \$33,122,887  | \$38,709,945                             | \$497,200,588   | 6.66%  |
| 2018                  | 74,760,248 <sup>2</sup>                    | 32,956,898  | 41,803,350                               | 531,542,782     | 6.20%  |
| 2019                  | 100,187,896                                | 63,749,803  | 36,438,093                               | 548,512,479     | 11.62%   |
| 2020                  | 87,804,585                                 | 38,599,577  | 49,205,008                               | 554,291,862     | 6.96%  |
| 2021                  | 90,025,812                                 | 90,462,714  | -436,902                                 | 578,701,831     | 15.63%   |
| 2022                  | 109,708,031                                | 35,170,057  | 74,537,974                               | 579,628,736     | 6.07%  |

<sup>1</sup> The above information is required beginning in 2017. A full 10-year trend will be compiled in future years.

<sup>2</sup> The Actuarially Determined Contributions were calculated by the prior actuary, Buck Consultants.

#### Notes to Schedule:

##### Methods and assumptions used to establish “actuarially determined contribution” rates:

|                                      |   |
|--------------------------------------|---|
| <b>Valuation date</b>                | Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported |
| <b>Measurement date</b>              | June 30, 2022   |
| <b>Actuarial cost method</b>         | Projected Unit Credit   |
| <b>Amortization method</b>           | 30 Years, Closed, Level Percent of Payroll  |
| <b>Remaining amortization period</b> | 26 Years as of July 1, 2022   |
| <b>Asset valuation method</b>        | The market value of assets as of the measurement date   |
| <b>Actuarial assumptions</b>         | The actuarial assumptions used to calculate the actuarially determined contribution rates can be found in Exhibit II.                                     |

## Section 2: Valuation Results

### Actuarially Determined Contribution

|  | Year Ending<br>June 30, 2024 | % of Payroll  | Year Ending<br>June 30, 2023 | % of Payroll  |
|--|------------------------------|---------------|------------------------------|---------------|
| <b>Rate of Return</b>                                | <b>7.00%</b>                 |               | <b>7.00%</b>                 |               |
| Actuarial Accrued Liability                          | \$943,860,587                | 145.54%       | \$901,630,521                | 145.21%       |
| Health Care Fund Assets                              | <u>125,449,225</u>           | <u>19.34%</u> | <u>128,686,560</u>           | <u>20.73%</u> |
| Unfunded Actuarial Accrued Liability                 | \$818,411,362                | 126.20%       | \$772,943,961                | 124.49%       |
| Normal Cost  | \$19,729,845                 | 3.04%         | \$20,897,140                 | 3.37%         |
| Amortization of Unfunded Actuarial Accrued Liability | <u>47,417,101</u>            | <u>7.31%</u>  | <u>43,680,845</u>            | <u>7.03%</u>  |
| Total Actuarially Determined Contribution            | \$67,146,946                 | 10.35%        | \$64,577,985                 | 10.40%        |
| Total Payroll  | \$648,517,349                |               | \$620,912,792                |               |

For the year ending June 30, 2023, the Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2021 assuming the System contributes the amount of expected benefit payments for the year ending June 30, 2022. The Unfunded Actuarially Accrued Liability was amortized using a closed 26 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.50%.

For the year ending June 30, 2024, the Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2022 assuming the System contributes the Actuarially Determined Contribution for the year ending June 30, 2023. The Unfunded Actuarially Accrued Liability was amortized using a closed 25 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.50%.

## Section 2: Valuation Results

### Statement of Fiduciary Net Position

|                                  | <b>June 30, 2022</b> |
|----------------------------------|----------------------|
| Total Assets                     | \$104,851,035        |
| Total Liabilities                | <u>50,991</u>        |
| Net position restricted for OPEB | \$104,800,044        |

## Section 2: Valuation Results

### Schedule of Investment Returns

| Year | Annual Money Weighted<br>Rate of Return, Net of<br>Investment Expense |
|------|---|
| 2017 | 6.5%  |
| 2018 | 4.0%  |
| 2019 | 6.9%  |
| 2020 | 6.2%  |
| 2021 | 13.9%   |
| 2022 | -13.1%  |

# Supporting Information

## Exhibit I: Summary of Participant Data

|   | As of June 30, 2021 | As of June 30, 2020 |
|---|---------------------|---------------------|
| <b>Retirees Enrolled in Health Care:</b>              |                     |                     |
| Number of retirees                                    | 5,219               | 5,066               |
| Average age of retirees                               | 71.2                | 71.1                |
| Number of spouses and dependents (excluding children) | 2,572               | 2,491               |
| Average age of spouses                                | 67.8                | 67.8                |
| <b>Surviving Spouses Enrolled in Health Care:</b>     |                     |                     |
| Number  | 265                 | 244                 |
| Average age   | 76.9                | 76.9                |
| <b>Active Participants:</b>                           |                     |                     |
| Number  | 8,448               | 8,788               |
| Average age   | 45.9                | 45.8                |
| Average years of service                              | 11.0                | 10.9                |
| Average expected retirement age                       | 62.6                | 62.4                |

## Section 3: Supporting Information

### Exhibit II: Actuarial Assumptions and Actuarial Cost Method

|                                  |   |   |
|----------------------------------|---|---|
| <b>Data:</b>                     | Detailed census data, premium data and/or claim experience, and summary plan descriptions for OPEB were provided and/or affirmed by the Vermont State Employees' Retirement System.   |   |
| <b>Actuarial Cost Method:</b>    | Entry Age Normal, level percent of pay  |   |
| <b>Asset Valuation Method:</b>   | Market Value  |   |
| <b>Roll-forward Techniques:</b>  | The results as of June 30, 2022 were based on participant data as of June 30, 2021 projected forward to June 30, 2022 using standard actuarial techniques.  |   |
| <b>Measurement Date:</b>         | June 30, 2022   |   |
| <b>Actuarial Valuation Date:</b> | June 30, 2021   |   |
| <b>Demographic Assumptions:</b>  | <p>Some of the demographic assumptions used in this valuation (including mortality, disability, turnover, and retirement), in addition to the assumed salary scale are the same as used in the Vermont State Employees' Retirement System Actuarial Valuation and Review as of June 30, 2022 completed by Segal. These assumptions were reviewed as part of the pension valuation process, and we have no reason to doubt their reasonableness for use in this valuation.</p> <p>The remaining demographic assumptions, such as enrollment elections, percent married, and relative ages of spouses were based on the experience of the Plan and the experience of similar plans.</p> |   |
| <b>Discount Rate:</b>            | 7.00%   |   |
| <b>Salary Increases:</b>         | <b>Service</b>  | <b>Annual Rate of Salary Increase (%)</b> |
|                                  | 0   | 5.55%                                     |
|                                  | 5   | 5.31%                                     |
|                                  | 10  | 4.77%                                     |
|                                  | 15  | 4.42%                                     |
|                                  | 20  | 4.20%                                     |
|                                  | 25  | 3.99%                                     |
|                                  | 30  | 3.82%                                     |
|                                  | 35  | 3.62%                                     |
|                                  | 40+   | 3.40%                                     |

## Section 3: Supporting Information

### Mortality Rates:

#### *Pre-retirement:*

- Groups A/F 60% of PubG-2010 General Employee Headcount-Weighted Above Median, 40% of PubG-2010 General Employee Headcount-Weighted with generational projection using scale MP-2019
- Group C PubS-2010 Public Safety Employee Headcount-Weighted with generational projection using scale MP-2019
- Group D\* 70% of PubG-2010 General Employee Headcount-Weighted Above Median, 30% of PubG-2010 General Employee with generational projection using scale MP-2019

#### *Healthy Post-retirement - Retirees:*

- Groups A/F 109% of PubG-2010 General Healthy Retiree Headcount-Weighted with generational projection using scale MP-2019
- Group C 40% of PubS-2010 Public Safety Retiree Headcount-Weighted Above Median, 60% of PubS-2010 Public Safety Retiree Headcount-Weighted with generational projection using scale MP-2019
- Group D PubG-2010 General Healthy Retiree Headcount-Weighted Above Median with generational projection using scale MP-2019

#### *Healthy Post-retirement - Spouses:*

- Groups A/F Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019
- Group C 40% of Pub-2010 Contingent Survivor Headcount-Weighted Above Median, 60% of Pub-2010 Contingent Survivor Headcount-Weighted with generational projection using MP-2019
- Group D Pub-2010 Contingent Survivor Headcount-Weighted Above Median with generational projection using MP-2019

#### *Disabled Post-retirement:*

- All Groups PubNS-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table with generational projection using scale MP-2019

The tables with the generational projection to the ages of members as of the measurement date reasonably reflect the mortality experience of the System as of the measurement date. The mortality tables were then adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

## Section 3: Supporting Information

### Separation from Service before Retirement (Due to Withdrawal and Disability):

Representative values of the assumed annual rates of withdrawal and disability are as follows:

| Rate (%)                           |             |                  |             |                         |              |         |
|------------------------------------|-------------|------------------|-------------|-------------------------|--------------|---------|
| Withdrawal Groups A/D <sup>1</sup> |             |                  |             | Disability <sup>2</sup> |              |         |
| Ultimate Rates                     |             | Increase Factors |             |                         |              |         |
| Age                                | Male/Female | Service          | Male/Female | Age                     | Groups A/D/F | Group C |
| 25                                 | 4.9066%     | 1                | 4.000       | 25                      | 0.0158%      | 0.0770% |
| 30                                 | 3.9275%     | 3                | 2.500       | 30                      | 0.0204%      | 0.0990% |
| 35                                 | 3.2826%     | 5                | 1.900       | 35                      | 0.0272%      | 0.1325% |
| 40                                 | 3.0392%     | 7                | 1.600       | 40                      | 0.0406%      | 0.1980% |
| 45                                 | 2.6920%     | 9                | 1.300       | 45                      | 0.0665%      | 0.3235% |
| 50                                 | 2.2464%     |                  |             | 50                      | 0.1055%      | 0.5455% |
| 55                                 | 1.8346%     |                  |             | 55                      | 0.1862%      | 0.9080% |
| 60                                 | 3.9019%     |                  |             | 60                      | 0.3005%      | 1.4640% |

<sup>1</sup> The Ultimate Rates are multiplied by the Increase Factors during the first 10 years of service.

<sup>2</sup> All DC disabilities are assumed to be "non-duty".

### Withdrawal Group C

| Service | Male    | Female  |
|---------|---------|---------|
| 0       | 10.800% | 21.600% |
| 1       | 6.480%  | 12.960% |
| 2       | 5.400%  | 10.800% |
| 3       | 3.456%  | 6.912%  |
| 4       | 3.456%  | 6.912%  |
| 5       | 3.456%  | 6.912%  |
| 6-19    | 3.240%  | 6.480%  |
| 20+     | 0.000%  | 0.000%  |

## Section 3: Supporting Information

Separation from Service before Retirement (Due to Withdrawal and Disability) *(continued)*:

| Withdrawal Group F <sup>1</sup>          |             |                  |             |   |             |
|--|-------------|------------------|-------------|---|-------------|
| Ultimate Rates<br>0- 10 years of Service |             | Increase Factors |             | Ultimate Rates <sup>2</sup><br>10-30 Years of Service |             |
| Age                                      | Male/Female | Service          | Male/Female | Age   | Male/Female |
| 25                                       | 6.3933%     | 1                | 2.800       | 25  | 4.2200%     |
| 30                                       | 5.1207%     | 3                | 1.750       | 30  | 3.3800%     |
| 35                                       | 4.2723%     | 5                | 1.350       | 35  | 2.8200%     |
| 40                                       | 3.9542%     | 7                | 1.175       | 40  | 2.6100%     |
| 45                                       | 3.5148%     | 9                | 1.150       | 45  | 2.3200%     |
| 50                                       | 2.9240%     |                  |             | 50  | 1.9300%     |
| 55                                       | 2.4695%     |                  |             | 55  | 1.6300%     |
| 60                                       | 2.4695%     |                  |             | 60  | 1.6300%     |

<sup>1</sup> The rates are multiplied by the Increase Factors during the first 10 years of service.

<sup>2</sup> Withdrawal rates are 0.00% for all Group F members with 30+ years of service.

## Section 3: Supporting Information

### Retirement Rates:

Once eligible for a retirement benefit under the pension plan (Group A: age 65 with 5 years of service, age 62 with 20 years of service, or any age with 30 years of service; Group C: age 57 or age 50 with 20 years of service; Group D: age 55 with 5 years of service or any age with 30 years of service; Group F: age 62, age 55 with 5 years of service, or any age with 30 years of service; Group F\* and DC: age 65, 87 points, or age 55 with 5 years of service), the following rates apply:

| Retirement Group F/F*/DC <sup>1</sup> |        |        |     |         |         |
|---------------------------------------|--------|--------|-----|---------|---------|
| Age                                   | Male   | Female | Age | Male    | Female  |
| 40-52                                 | 20.00% | 10.00% | 62  | 25.00%  | 25.00%  |
| 53                                    | 15.00% | 10.00% | 63  | 17.50%  | 15.00%  |
| 54                                    | 15.00% | 10.00% | 64  | 20.00%  | 15.00%  |
| 55                                    | 5.00%  | 5.00%  | 65  | 22.50%  | 20.00%  |
| 56                                    | 5.00%  | 5.00%  | 66  | 25.00%  | 30.00%  |
| 57                                    | 5.00%  | 5.00%  | 67  | 25.00%  | 30.00%  |
| 58                                    | 5.00%  | 7.50%  | 68  | 25.00%  | 30.00%  |
| 59                                    | 7.50%  | 7.50%  | 69  | 25.00%  | 30.00%  |
| 60                                    | 7.50%  | 7.50%  | 70+ | 100.00% | 100.00% |
| 61                                    | 15.00% | 12.50% |     |         |         |

| Retirement Group C <sup>1</sup> |      |
|---------------------------------|------|
| Age                             | Male |
| 50                              | 50%  |
| 51-53                           | 10%  |
| 54-56                           | 5%   |
| 57+                             | 100% |

<sup>1</sup> All Group A and D members are assumed to retire when first eligible.

Projected inactive vested members are assumed to retire at a rate of 20% per year from Early Retirement Age until 100% at Normal Retirement Age.

### Missing Participant Data:

A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.

## Section 3: Supporting Information

### Participation and Coverage Election:

85% of active employees eligible to retire and receive the maximum premium subsidy and 50% of active employees eligible to retire and receive less than the maximum premium subsidy were assumed to participate in the plan. 70% of terminated vested participants are assumed to elect coverage upon receiving pension benefits. Deferred pension benefits are assumed to commence at age 50 for Group C and age 55 for Group F\* and DC Plan participants.

100% of eligible future retirees are assumed to elect life insurance upon retirement. 75% of non-DC Plan current retirees are assumed to have life insurance coverage. Life insurance coverage for current DC retirees is based on the data provided.

25% of eligible future retirees covering a spouse are assumed to elect the Premium Reduction Option. No terminated vested participants were assumed to elect the Premium Reduction Option. Current retiree Premium Reduction Option status was based on the provided demographic data.

### Dependents:

Demographic data was used for spouses of current retirees when available. For future retirees and current spouses for which information is not available, male employees are assumed to be two years older than wives and female employees are assumed to be one year younger than husbands. Of those future retirees who elect to continue their health coverage at retirement, 70% of males and 55% of females were assumed to have an eligible spouse who also opts for health coverage at that time. Spouses of retirees electing PRO are assumed to elect coverage for their lifetime. Spouses of retirees not electing PRO are assumed to drop coverage upon death of retiree.

### Per Capita Cost Development:

Per capita claims costs were based on the monthly required premium equivalents as of January 1, 2023 calculated by Hickok & Boardman. Premiums for Total Choice and Select Care POS were weighted by actual active, retiree and dependent enrollment, separately for non-Medicare and Medicare. Premiums were trended to the midpoint of the valuation year at assumed trend rates. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

### Per Capita Health Costs:

Medical and prescription drug claims costs for the year beginning July 1, 2022, including administrative fees, are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

| Age | Medical & Prescription Drug |          |         |          |
|-----|-----------------------------|----------|---------|----------|
|     | Retiree                     |          | Spouse  |          |
|     | Male                        | Female   | Male    | Female   |
| 50  | \$13,830                    | \$15,752 | \$9,660 | \$12,648 |
| 55  | 16,424                      | 16,957   | 12,926  | 14,640   |
| 60  | 19,505                      | 18,277   | 17,304  | 16,980   |
| 64  | 22,377                      | 19,389   | 21,845  | 19,111   |
| 65  | 4,303                       | 3,658    | 4,303   | 3,658    |
| 70  | 4,987                       | 3,942    | 4,987   | 3,942    |
| 75  | 5,374                       | 4,243    | 5,374   | 4,243    |

### Administrative Expenses:

An additional administrative expense load of 10% is added to death benefit claims.

## Section 3: Supporting Information

### Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year’s cost to yield the next year’s projected cost.

| Year Ending<br>June 30 | Rate (%)     |          |
|------------------------|--------------|----------|
|                        | Non-Medicare | Medicare |
| 2023                   | 7.12         | 6.50     |
| 2024                   | 6.90         | 6.33     |
| 2025                   | 6.68         | 6.16     |
| 2026                   | 6.46         | 5.99     |
| 2027                   | 6.24         | 5.82     |
| 2028                   | 6.02         | 5.65     |
| 2029                   | 5.80         | 5.48     |
| 2030                   | 5.58         | 5.31     |
| 2031                   | 5.36         | 5.14     |
| 2032                   | 5.14         | 4.97     |
| 2033                   | 4.92         | 4.80     |
| 2034                   | 4.70         | 4.63     |
| 2035+                  | 4.50         | 4.50     |

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

### Retiree Contribution Increase Rate:

Retiree contributions were assumed to increase with health trend. Retiree contribution rates were based on premiums effective January 1, 2023, trended to the measurement date. Premiums for Total Choice and Select Care POS were weighted by actual retiree and dependent enrollment, separately for non-Medicare and Medicare.

### Health Care Reform Assumption:

The valuation does not reflect the potential impact of any future changes due to prior or pending legislation.

## Section 3: Supporting Information

### Models:

Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

The results are also based on models for cost projections developed by Segal actuaries and programmers. The client team customizes and validates the models, and reviews the results, under the supervision of the responsible actuary.

The blended discount rate used for calculating Total OPEB Liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

### Assumption Changes:

The discount rate was increased from 2.41% to 7.00%.

The valuation-year per capita health costs and retiree contribution rates were updated.

The percentage of active employees eligible to retire and receive the maximum premium subsidy who are assumed to participate in the plan increased from 80% to 85%. The percentage of active employees eligible to retire and receive less than the maximum premium subsidy who are assumed to participate in the plan decreased from 80% to 50%.

The percentage of eligible future retirees covering a spouse that are assumed to elect the Premium Reduction Option decreased from 35% to 25%.

The percentage of future female retirees assumed to have an eligible spouse who also opts for health coverage decreased from 60% to 55%.

Retirement rates were updated for Group C to reflect the best estimate of anticipated future experience as a result of the various plan provision changes contained in Act 114.

## Section 3: Supporting Information

### Exhibit III: Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

|                              |   |
|------------------------------|---|
| <b>Eligibility:</b>          | <p><b><u>Group A:</u></b> Employees in active service as of June 30, 1981 and elected to continue to make contributions, or were hired between July 1, 1981 and June 30, 1984 and elected to enroll in Group A. Closed to new enrollment.</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55 with 5 years of service or any age with 30 years of service.</li> </ul> <p><b><u>Group C:</u></b> State police officers and public safety employees assigned to law enforcement duties.</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55, or age 50 with 20 years of service.</li> <li>• Terminated Vested: Participants who terminate with 20 or more years of service can receive medical benefits upon receiving DB pension benefits.</li> </ul> <p><b><u>Group D:</u></b> Supreme court justices, and superior and district court judges. Probate judges appointed prior to July 1, 1987 are also covered by this plan.</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55 with 5 years of service or any age with 30 years of service.</li> </ul> <p><b><u>Group F:</u></b> State employees hired after January 1, 1991 and before July 1, 2008</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55 and 5 years of service or any age with 30 years of service.</li> <li>• Terminated Vested: Not eligible</li> </ul> <p><b><u>Group F*:</u></b> State employees hired on or after July 1, 2008</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55 and 5 years of service or a sum of age plus service greater than or equal to 87.</li> <li>• Terminated Vested: 20 or more years of service can receive medical upon receiving DB pension benefits</li> </ul> <p><b><u>Defined Contribution (DC) Pension:</u></b> Exempt state employees.</p> <ul style="list-style-type: none"> <li>• Retirement: Attainment of age 55 and 5 years of service</li> <li>• Terminated Vested: 20 or more years of service can receive medical upon receiving DC pension benefits</li> </ul> <p><b><u>Non-Duty Disability Medical Benefits:</u></b> 5 years of service.</p> <p><b><u>Life Insurance Benefit:</u></b> 20 or more years of continuous service (no terminated vested benefits for life insurance).</p> |
| <b>Benefit Types:</b>        | Medical and prescription drug coverage is provided for all retirees. Life insurance is provided for all retirees. Retirees pay the full cost for dental benefits.   |
| <b>Duration of Coverage:</b> | Lifetime, once a participant leaves the plan, they cannot reenroll.   |
| <b>Spousal Benefits:</b>     | Same benefits as for retirees except no life insurance.   |
| <b>Spousal Coverage:</b>     | Lifetime.   |

## Section 3: Supporting Information

### Premiums:

The VSERS insurance premiums effective January 1, 2023 are shown below.

|   | Total Choice | Total Premium |
|---|--------------|---------------|
| <b>Retiree Under 65</b>   |              |               |
| Retiree Only  |              | \$1,237.91    |
| Retiree & 1 dependent   |              | \$2,475.83    |
| Retiree & 2 or more dependents  |              | \$3,404.25    |
| Retiree & 1 Medicare dependent  |              | \$1,678.35    |
| Retiree & 1 Medicare dependent <b>Dependent Declines EGWP</b>                               |              | \$1,408.17    |
| Retiree & 2 or more dependents with 1 Medicare dependent                                    |              | \$2,230.71    |
| Retiree & 2 or more dependents with 1 Medicare dependent <b>Dependent Declines EGWP</b>     |              | \$1,944.46    |
| Retiree & 2 or more dependents with dependents all Medicare                                 |              | \$2,118.78    |
| Retiree & 2 or more dependents with dependents all Medicare <b>Dependent Decline EGWP</b>   |              | \$1,501.87    |
| <b>Retiree Over 65 or Medicare Eligible</b>   |              |               |
| Retiree only – Medicare   |              | \$440.43      |
| Retiree only – Medicare <b>Declines EGWP</b>  |              | \$206.31      |
| Retiree & 1 dependent – both Medicare   |              | \$880.87      |
| Retiree & 1 dependent – both Medicare <b>Retiree Declines EGWP</b>                          |              | \$633.77      |
| Retiree & 1 dependent – both Medicare <b>Dependent Declines EGWP</b>                        |              | \$633.77      |
| Retiree & 1 dependent – both Medicare <b>Both Decline EGWP</b>                              |              | \$412.62      |
| Retiree Medicare & 1 dependent not  |              | \$1,678.35    |
| Retiree Medicare & 1 dependent not <b>Retiree Declines EGWP</b>                             |              | \$1,408.13    |
| Retiree Medicare & 2 or more dependents not   |              | \$2,230.74    |
| Retiree Medicare & 2 or more dependents not <b>Retiree declines EGWP</b>                    |              | \$1,944.49    |
| Retiree Medicare & 2 or more dependents with 1 Medicare Dependent                           |              | \$1,433.24    |
| Retiree Medicare & 2 or more dependents with 1 Medicare Dependent <b>Dep. Declines EGWP</b> |              | \$1,170.19    |
| Retiree Medicare & 2 or more dependents w/ 1 Medicare Dependent <b>Both Decline EGWP</b>    |              | \$948.91      |
| Retiree Medicare & 2 dependents – all Medicare eligible                                     |              | \$1,282.76    |

## Section 3: Supporting Information

| Select Care POS   | Total Premium |
|---|---------------|
| <b>Retiree Under 65</b>   |               |
| Retiree Only  | \$1,036.05    |
| Retiree & 1 dependent   | \$2,072.07    |
| Retiree & 2 or more dependent   | \$2,849.10    |
| Retiree & 1 Medicare dependent  | \$1,392.59    |
| Retiree & 1 Medicare dependent <b>Dependent Declines EGWP</b>                               | \$1,130.74    |
| Retiree & 2 or more dependents with 1 Medicare dependent                                    | \$1,854.88    |
| Retiree & 2 or more dependents with 1 Medicare dependent <b>Dependent Declines EGWP</b>     | \$1,579.58    |
| Retiree & 2 or more dependents with dependents all Medicare                                 | \$1,749.14    |
| Retiree & 2 or more dependents with dependents all Medicare <b>Dependents Decline EGWP</b>  | \$1,136.98    |
| <b>Retiree Over 65 or Medicare Eligible</b>   |               |
| Retiree only – Medicare   | \$356.55      |
| Retiree only – Medicare <b>Declines EGWP</b>  | \$124.87      |
| Retiree & 1 dependent – both Medicare   | \$713.09      |
| Retiree & 1 dependent – both Medicare <b>Retiree Declines EGWP</b>                          | \$471.03      |
| Retiree & 1 dependent – both Medicare <b>Dependent Declines EGWP</b>                        | \$471.03      |
| Retiree & 1 dependent – both Medicare <b>Both Decline EGWP</b>                              | \$249.74      |
| Retiree Medicare & 1 dependent not  | \$1,392.59    |
| Retiree Medicare & 1 dependent not <b>Retiree Declines EGWP</b>                             | \$1,130.74    |
| Retiree Medicare & 2 or more dependents not   | \$1,854.88    |
| Retiree Medicare & 2 or more dependents not <b>Retiree Declines EGWP</b>                    | \$1,579.62    |
| Retiree Medicare & 2 or more dependents with 1 Medicare dependent                           | \$1,175.39    |
| Retiree Medicare & 2 or more dependents with 1 Medicare dependent <b>Dep. Declines EGWP</b> | \$919.86      |
| Retiree Medicare & 2 or more dependents with 1 Medicare dependent <b>Both Decline EGWP</b>  | \$698.55      |
| Retiree Medicare & 2 Dependents – all Medicare eligible                                     | \$1,038.49    |
| Retiree Medicare & 2 Dependents – all Medicare eligible <b>1 Dependent Declines EGWP</b>    | \$913.62      |

## Section 3: Supporting Information

| <b>Retiree Contributions:</b>                                   | <p>Retirees and spouses pay premium costs in excess of the VSERS subsidy.</p> <table border="1" data-bbox="913 243 1680 503"> <thead> <tr> <th colspan="2" style="text-align: right;"><b>Subsidy</b></th> </tr> </thead> <tbody> <tr> <td>Groups A, C, D, F</td> <td style="text-align: right;">80%</td> </tr> <tr> <td colspan="2">Group F* and Defined Contribution (hired July 1, 2008 or later)</td> </tr> <tr> <td>Less than 10 years of service</td> <td style="text-align: right;">0%</td> </tr> <tr> <td>10-14 years of service</td> <td style="text-align: right;">40%</td> </tr> <tr> <td>15-19 years of service</td> <td style="text-align: right;">60%</td> </tr> <tr> <td>20+ years of service</td> <td style="text-align: right;">80%</td> </tr> </tbody> </table>   | <b>Subsidy</b>  |   | Groups A, C, D, F                         | 80%                        | Group F* and Defined Contribution (hired July 1, 2008 or later) |                   | Less than 10 years of service | 0%                       | 10-14 years of service | 40%                                   | 15-19 years of service | 60%                                     | 20+ years of service                                   | 80% |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
|---|--|---|---|---|----------------------------|---|-------------------|-------------------------------|--------------------------|------------------------|---------------------------------------|------------------------|---|--|-----|---|---|---|--------------------|--|-----|------|-----|---------------------------|--|--|--|--|--------------------------|--|-----------------------------------|--|--|--------------------|--|--|--|--|----------------|--|-----|--|--|------------------------|--|-----|--|--|----------------------------|--|-----|--|--|-------------------------------------|--|---|--|--|-----------------------|--|--|--|--|--|--|---------------------------|--|--|
| <b>Subsidy</b>  |  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| Groups A, C, D, F   | 80%  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| Group F* and Defined Contribution (hired July 1, 2008 or later) |  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| Less than 10 years of service                                   | 0%   |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| 10-14 years of service  | 40%  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| 15-19 years of service  | 60%  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| 20+ years of service  | 80%  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <b>Premium Reduction Option:</b>                                | <p>Participants in Groups A, C, D, F, or F* retiring on or after January 1, 2007 with a VSERS premium subsidy have a one-time option to reduce the VSERS subsidy percentage during the retiree's life so that a surviving spouse may continue to receive the same VSERS subsidy for the spouse's lifetime. If the retirees elects the joint and survivor pension option but not the Premium Reduction Option, spouses are covered for the spouse's lifetime but pay 100% of the plan premium after the retiree's death. This option is not available to Defined Contribution participants.</p>   |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <b>Benefit Descriptions:</b>                                    | <table border="1" data-bbox="577 690 2016 1307"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2"><b>Medical</b></th> <th rowspan="2"><b>TotalChoice Plan</b></th> <th colspan="2"><b>SelectCare POS Plan</b></th> </tr> <tr> <th><u>In-Network</u></th> <th><u>Out-of-Network</u></th> </tr> </thead> <tbody> <tr> <td><i>Annual deductible</i></td> <td></td> <td>\$300 per person,<br/>\$600 per family</td> <td>None</td> <td>\$500 per person,<br/>\$1,000 per family</td> </tr> <tr> <td><i>Maximum annual copays (after deductible is met)</i></td> <td></td> <td>\$750 per person,<br/>\$2,250 per family</td> <td>\$2,000 per person,<br/>\$6,000 per family</td> <td>\$2,000 per person,<br/>\$6,000 per family</td> </tr> <tr> <td><i>Coinsurance</i></td> <td></td> <td>80%</td> <td>100%</td> <td>70%</td> </tr> <tr> <td colspan="5"><b>Prescription Drugs</b></td> </tr> <tr> <td><i>Annual deductible</i></td> <td></td> <td colspan="3">\$50 per person, \$150 per family</td> </tr> <tr> <td><i>Coinsurance</i></td> <td></td> <td colspan="3"></td> </tr> <tr> <td><i>Generic</i></td> <td></td> <td colspan="3">10%</td> </tr> <tr> <td><i>Preferred Brand</i></td> <td></td> <td colspan="3">20%</td> </tr> <tr> <td><i>Non-Preferred Brand</i></td> <td></td> <td colspan="3">40%</td> </tr> <tr> <td><i>Annual maximum out-of-pocket</i></td> <td></td> <td colspan="3">\$800 per covered member for generic and preferred brand drugs,<br/>\$1,350 per covered member for non-preferred brand drugs</td> </tr> <tr> <td colspan="5"><b>Life Insurance</b></td> </tr> <tr> <td></td> <td></td> <td colspan="3">\$10,000 for retiree only</td> </tr> </tbody> </table> |   | <b>Medical</b>                            | <b>TotalChoice Plan</b>                   | <b>SelectCare POS Plan</b> |   | <u>In-Network</u> | <u>Out-of-Network</u>         | <i>Annual deductible</i> |                        | \$300 per person,<br>\$600 per family | None                   | \$500 per person,<br>\$1,000 per family | <i>Maximum annual copays (after deductible is met)</i> |     | \$750 per person,<br>\$2,250 per family | \$2,000 per person,<br>\$6,000 per family | \$2,000 per person,<br>\$6,000 per family | <i>Coinsurance</i> |  | 80% | 100% | 70% | <b>Prescription Drugs</b> |  |  |  |  | <i>Annual deductible</i> |  | \$50 per person, \$150 per family |  |  | <i>Coinsurance</i> |  |  |  |  | <i>Generic</i> |  | 10% |  |  | <i>Preferred Brand</i> |  | 20% |  |  | <i>Non-Preferred Brand</i> |  | 40% |  |  | <i>Annual maximum out-of-pocket</i> |  | \$800 per covered member for generic and preferred brand drugs,<br>\$1,350 per covered member for non-preferred brand drugs |  |  | <b>Life Insurance</b> |  |  |  |  |  |  | \$10,000 for retiree only |  |  |
|   | <b>Medical</b>   |   |   |   | <b>TotalChoice Plan</b>    | <b>SelectCare POS Plan</b>                                      |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
|   |  | <u>In-Network</u>   | <u>Out-of-Network</u>                     |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Annual deductible</i>  |  | \$300 per person,<br>\$600 per family   | None                                      | \$500 per person,<br>\$1,000 per family   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Maximum annual copays (after deductible is met)</i>          |  | \$750 per person,<br>\$2,250 per family   | \$2,000 per person,<br>\$6,000 per family | \$2,000 per person,<br>\$6,000 per family |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Coinsurance</i>  |  | 80%   | 100%                                      | 70%                                       |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <b>Prescription Drugs</b>                                       |  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Annual deductible</i>  |  | \$50 per person, \$150 per family   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Coinsurance</i>  |  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Generic</i>  |  | 10%   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Preferred Brand</i>  |  | 20%   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Non-Preferred Brand</i>                                      |  | 40%   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <i>Annual maximum out-of-pocket</i>                             |  | \$800 per covered member for generic and preferred brand drugs,<br>\$1,350 per covered member for non-preferred brand drugs |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <b>Life Insurance</b>   |  |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
|   |  | \$10,000 for retiree only   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |
| <b>Plan Changes since Prior Valuation:</b>                      | <p>Changes were made to the pension eligibility requirements based on Act 114.</p>   |   |   |   |                            |   |                   |                               |                          |                        |                                       |                        |   |  |     |   |   |   |                    |  |     |      |     |                           |  |  |  |  |                          |  |                                   |  |  |                    |  |  |  |  |                |  |     |  |  |                        |  |     |  |  |                            |  |     |  |  |                                     |  |   |  |  |                       |  |  |  |  |  |  |                           |  |  |

## Section 3: Supporting Information

### Appendix A: Definition of Terms

Definitions of certain terms as they are used in Statement 75. The terms may have different meanings in other contexts.

|  |   |
|--|---|
| <b>Actuarially Determined Contribution:</b>  | A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.   |
| <b>Assumptions or Actuarial Assumptions:</b> | The estimates on which the cost of the Plan is calculated including: <ol style="list-style-type: none"><li>Investment return — the rate of investment yield that the Plan will earn over the long-term future;</li><li>Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;</li><li>Retirement rates — the rate or probability of retirement at a given age;</li><li>Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.</li></ol> |
| <b>Covered Payroll:</b>                      | The payroll of the employees that are provided OPEB benefits  |
| <b>Discount Rate:</b>                        | The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following: <ol style="list-style-type: none"><li>the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and</li><li>the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher</li></ol>               |
| <b>Entry Age Actuarial Cost Method:</b>      | An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age  |
| <b>Healthcare Cost Trend Rates:</b>          | The rate of change in per capita health costs over time   |
| <b>Measurement Date:</b>                     | The date at which the Net OPEB Liability is measured.   |
| <b>Net OPEB Liability:</b>                   | The Total OPEB Liability less the Plan Fiduciary Net Position   |
| <b>Plan Fiduciary Net Position:</b>          | Market Value of Assets  |
| <b>Real Rate of Return:</b>                  | The rate of return on an investment after removing inflation  |
| <b>Service Cost:</b>                         | The amount of contributions required to fund the benefit allocated to the current year of service.  |

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|                              |  |
|------------------------------|--|
| <b>Total OPEB Liability:</b> | Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. |
| <b>Valuation Date:</b>       | The date at which the actuarial valuation is performed   |

## Section 3: Supporting Information

### Appendix B: Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 74 – Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and Statement Number 75 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. Under these statements, all state and local government entities that provide other post-employment benefits are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (i.e., a pay-as-you-go basis).

The statements cover postemployment benefits of medical, prescription drugs, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 3, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards prescribe an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also prescribe a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 3. This amount is then discounted to determine the Total OPEB Liability. The Net OPEB Liability (NOL) is the difference between the Total OPEB Liability and market value of assets in the Plan, called the Plan Fiduciary Net Position.

Once the NOL is determined, the Annual OPEB Expense is determined as the change in NOL from the prior year with deferred recognition of certain elements. In addition, Required Supplementary Information (RSI) must be reported, including historical information about the Net OPEB Liability and the contributions made to the Plan. Appendix A of Section 3 contain a definition of terms as well as more information about GASB 74/75 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short-term volatility in accrued liabilities and the actuarial value of assets, if any.

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Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.