Alameda County Employees' Retirement Association (ACERA)

Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation of the Benefits Provided by the Supplemental Retiree Benefits Reserve Other Postemployment Benefits (OPEB)

As of December 31, 2022

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May 22, 2023

Board of Retirement
Alameda County Employees' Retirement Association
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Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation as of December 31, 2022. It contains various information that will need to be disclosed in order to comply with GASB 74.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Association. The census and financial information on which our calculations were based was prepared by ACERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the health care cost, economic or demographic 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); changes in health care trend, 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.

The actuarial calculations were completed under the supervision of Mary Kirby, FSA, FCA, MAAA, and Andy Yeung ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Association.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Andy Yeung

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

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VZP/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required for "Other Postemployment Benefits (OPEB)" plans by Statement No. 74 of the Governmental Accounting Standards Board as of December 31, 2022. This valuation is based on:

- The benefit provisions of the OPEB Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2021, provided by ACERA;
- The assets of the Plan as of December 31, 2022, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends etc. adopted by the Board for the December 31, 2022 valuation.

General observations on GASB 74 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans still develop and adopt funding policies, if applicable, under current practices.
2. When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and, for benefits that are being fully funded on an actuarial basis, the same expected return on Plan assets as used for funding.[1] This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding.
3. The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the fair value of assets. The NOL reflects all investment gains and losses as of the measurement date.

[1] See discussions on next page regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

Highlights of the valuation

1. The NOL increased from ($420.6) million (a surplus) as of December 31, 2021 to $191.3 million (a liability) as of December 31, 2022 primarily as a result of unfavorable investment experience during calendar year 2022 of about $646.5 million (for an actual market return of -33.4%[2] versus 7.00% assumed in the valuation). Changes in these values during the last two fiscal years ending December 31, 2022 and 2021 can be found in *Section 2, Schedule of Changes in Net OPEB Liability* on page 16.

2. As we disclosed in our December 31, 2022 pension funding valuation report, the 7.00% investment return assumption that the Board approved for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

   As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the Total Pension Liability) that would average approximately 0.65% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: *Section 3, Projection of Pension Plan's Fiduciary Net Position* of our GASB 67 report as of December 31, 2022), along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA's funding policy.

   Furthermore, note (6) provided in *Section 3, Appendix A* of the GASB 67 report indicates that the present value of outflows from the 0.65% of assets over time is expected to be higher than the present values of the remaining OPEB and non-OPEB SRBR benefits that could be paid after the exhaustion of assets currently available in the SRBR.

   Therefore, in developing the crossover test for the OPEB SRBR in *Section 3, Appendix A* of this report, we have only included the projected benefits to the extent that on a present value basis they are less than or equal to the OPEB assets currently available in the SRBR as any remaining OPEB SRBR benefits would be paid from future excess earnings.

[2] Note that the -33.4% market value investment return mentioned above for the SRBR is lower than the -11.15% investment return included in the December 31, 2022 Pension Funding Valuation for Association's entire portfolio. The lower return for the SRBR is primarily a result of the reversal of the 50% of future excess earnings that might be allocated to the SRBR for the deferred investment gains as of December 31, 2021 to reflect future returns below 7.00% that might be allocated to the SRBR for the deferred investment losses as of December 31, 2022.

Section 1: Actuarial Valuation Summary

3. The TOL as of December 31, 2022 was determined by rolling forward the liability results used in determining the sufficiency of the SRBR to provide medical and dental subsidy benefits as of December 31, 2021. That TOL has been adjusted to reflect the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2022 (reference: our trend letter dated May 17, 2023).

4. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2022 to include the $1.115 billion set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2022. This includes $1.106 billion in the OPEB-related SRBR reserve (after reducing the reserve by the $8.0 million SRBR implicit subsidy transfer), and $9.0 million in the 401(h) reserve. It should be noted that as of December 31, 2022, the deferred investment <u>loss</u> for the entire Plan was $794 million. Consequently, we have subtracted from the Plan's Fiduciary Net Position the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve, or $74.0 million (which will cause the future interest crediting rate to the SRBR reserve to drop below 7.00% per year).

Summary of key valuation results

Measurement Date		December 31, 2022	December 31, 2021
Disclosure elements for fiscal year ending December 31:	• Service cost[1]	$33,755,489	$33,439,903
	• Total OPEB Liability	1,232,016,820	1,203,078,101
	• Plan's Fiduciary Net Position[2]	1,040,720,573	1,623,641,492
	• Net OPEB Liability	$191,296,247	($420,563,391)
Schedule of contributions for fiscal year ending December 31:	• Actuarially determined contributions	N/A	N/A
	• Actual contributions[3]	N/A	N/A
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31:[4]	• Number of retired members receiving medical benefits[5]	6,876	6,763
	• Number of retired members receiving dental and vision benefits	8,272	8,058
	• Number of vested terminated members	508	478
	• Number of active members	11,346	11,326
Key assumptions as of December 31:	• Discount rate	7.00%	7.00%
	• Health care premium trend rates		
	Non-Medicare medical plan	Graded from 7.50% to ultimate 4.50% over 12 years	Graded from 7.50% to ultimate 4.50% over 12 years
	Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.50% to ultimate 4.50% over 8 years
	Dental/Vision	4.00%[7]	4.00%[6]
	Medicare Part B	4.50%	4.50%

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively. The December 31, 2022 service cost has been calculated using the assumptions shown in the December 31, 2021 column, and the December 31, 2021 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2020:	
Discount rate	7.00%
Health care premium trend rates	
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years
Dental/Vision	4.00%
Medicare Part B	4.50%

The first two years of trend for dental were updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first four years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).

(2) For 2022, the Plan's Fiduciary Net Position shown ($1,040,720,573) includes the OPEB-related SRBR reserve of $1,105,725,871 (after reducing the reserve by the SRBR implicit subsidy transfer of $7,981,476) and 401(h) reserve ($8,979,234), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve ($73,984,533). For 2021, the Plan's Fiduciary Net Position shown ($1,623,641,492) includes the OPEB-related SRBR reserve of $1,073,475,020 (after reducing the reserve by the SRBR implicit subsidy transfer of $5,652,613) and 401(h) reserve ($9,229,285), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve ($540,937,187). Note that amounts may not total exactly due to rounding.

(3) Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

(4) The December 31, 2021 data is used in the measurement of the TOL as of December 31, 2022. The following data as of December 31, 2020 was used in the measurement of the TOL as of December 31, 2021:

Number of retired members receiving medical benefits	6,664
Number of retired members receiving dental and vision benefits	7,906
Number of vested terminated members	451
Number of active members	11,322

The demographic data as of December 31, 2022 will be used in the sufficiency study for the SRBR as of December 31, 2022 as well as in the next year's GASB 74 valuation when we roll forward the liability from December 31, 2022 to December 31, 2023.

(5) The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.

(6) The first year of trend for dental was updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first three years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).

(7) The 2023 and 2024 trend for vision reflect the five-year rate guarantee.

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected 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 long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan, not by the actuarial valuation.

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

Plan of benefits	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 description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by ACERA. 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.
Assets	This valuation is based on the fair value of assets as of the valuation date, as provided by ACERA. The Association uses an actuarial value of assets that differs from fair value of assets to gradually reflect six-month changes in the fair value of assets in the SRBR sufficiency valuation.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects 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 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, based on an estimate of the rate of return that will be achieved on the plan's assets. 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

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. Our per capita 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 premiums, enrollments, and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

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

The valuation is prepared at the request of the Board to assist ACERA in preparing items related to the OPEB SRBR plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. 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.
If ACERA 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.
Sections of this report include actuarial results that are not rounded, but that does not imply precision.
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.
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 Board should look to their other advisors for expertise in these areas.
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.

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

Section 2: GASB 74 Information

General information about the OPEB plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), Superior Court of California—County of Alameda, and Alameda County Office of Education (ACOE).

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

Plan membership. At December 31, 2022, OPEB plan membership consisted of the following:

Retired members currently receiving medical benefits	6,876
Retired members currently receiving dental and vision benefits	8,272
Vested terminated members entitled to, but not yet receiving benefits	508
Active members	11,346

Note: Data as of December 31, 2022 is not used in the measurement of the TOL as of December 31, 2022. It will be used for the sufficiency study for the SRBR as of December 31, 2022 as well as in next year's GASB 74 valuation.

The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.

Benefits provided. ACERA provides benefits to eligible employees under the following terms and conditions.

Eligibility:	
Service Retirees:	Retired with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from ACERA)
Disabled Retirees:	A minimum of 10[3] years of service is required for non-duty disability. There is no minimum service requirement for duty disability.
Other Postemployment Benefits (OPEB):	
Monthly Medical Allowance	
Service Retirees:	For retirees not purchasing individual insurance through the Medicare Insurance Exchange, a Maximum Monthly Medical Allowance of $596.73 per month is provided, effective January 1, 2022. For the period January 1, 2023 through December 31, 2023, the maximum allowance will increase to $616.12 per month. For those purchasing individual insurance through the Individual Medicare Insurance Exchange, the Maximum Monthly Medical Allowance is $457.13 per month for 2022 and will increase to $471.99 per month in 2023. These Allowances are subject to the following subsidy schedule:
Disabled Retirees:	Non-duty disabled retirees receive the same Monthly Medical Allowance as service retirees. Duty disabled retirees receive the same Monthly Medical Allowance as those service retirees with 20 or more years of service.

Completed Years of Service	Percentage Subsidized
10-14	50%
15-19	75%
20+	100%

[3] The 10 years of service requirement is only used for determining eligibility for health benefits. For pension benefits, the eligibility requirements is 5 years of service.

Section 2: GASB 74 Information

Medicare Benefit Reimbursement Plan:	The SRBR reimburses the full Medicare Part B premium to qualified retired members. To qualify for reimbursement, a retiree must: • Have at least 10 years of ACERA service, • Be eligible for Monthly Medical Allowance, • Provide proof of enrollment in Medicare Part B.
Dental and Vision Plans:	The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium are $48.12 in 2022 and $55.87 in 2023. The eligibility for these premiums is as follows.
Service Retirees:	Retired with at least 10 years of service.
Disabled Retirees:	For non-duty disabled retirees, 10 years of service is required. For grandfathered non-duty disabled retirees (with effective retirement dates on or before January 31, 2014), there is no minimum service requirement. For duty disabled retirees, there is no minimum service requirement.
Note about Monthly Medical Allowance:	The maximum levels of subsidy are reviewed by the Board annually and are not indexed to increase automatically. In addition, the Monthly Medical Allowance can only be used to pay for retiree medical benefits. There is no benefit payable to beneficiaries, current spouses, former spouses or dependents. If the actual cost of coverage is less than the Monthly Medical Allowance, the difference is not paid in cash or applied towards the coverage for beneficiaries, current spouses, former spouses or dependents.
Deferred Benefit:	Members who terminate employment with 10 or more years of service before reaching pension eligibility commencement age may elect deferred MMA and/or dental/vision benefits.
Death Benefit:	Surviving spouses/domestic partners of members who die before the member commences retiree health benefits may enroll in an ACERA group medical plan on the date that the member would have been eligible to commence benefits. The surviving spouse/domestic partner must pay 100% of the premium. Because premiums for surviving spouses/domestic partners under age 65 include active participants for purposes of underwriting, the surviving spouses/domestic partners receive an implicit subsidy, which creates a liability for the SRBR.

Net OPEB Liability

Measurement Date	December 31, 2022	December 31, 2021
Components of the Net OPEB Liability		
Total OPEB Liability	$1,232,016,820	$1,203,078,101
Plan's Fiduciary Net Position	1,040,720,573	1,623,641,492
Net OPEB Liability	$191,296,247	($420,563,391)
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	84.47%	134.96%

The Net OPEB Liability (NOL) was measured as of December 31, 2022 and 2021. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability (TOL) as of December 31, 2022 and 2021 was determined by rolling forward the TOL as of December 31, 2021 and 2020, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2022 and 2021 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2021 and 2020, respectively.

Actuarial assumptions. The actuarial assumptions used for the December 31, 2022 valuation were based on the results of the experience study for the period from December 1, 2016 through November 30, 2019 that were approved by the Board effective with the December 31, 2020 valuation and the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2022 (reference: our letter dated May 17, 2023). The assumptions used in the December 31, 2022 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Inflation	2.75%
Health care premium trend rates (used to project health care costs after calendar year 2023):	
Non-Medicare medical plan	Graded from 7.50% in 2023 to ultimate 4.50% over 12 years
Medicare medical plan	Graded from 6.25% in 2023 to ultimate 4.50% over 7 years
Dental	4.00%
Vision	0.00% for the first two years to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter.
Medicare Part B[4]	4.50%
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.

[4] The actual calendar year 2022 premium decrease of 3.06% reflecting the standard 2023 calendar year premium of $164.90 per month, consistent with Segal's Medicare Part B memo dated October 27, 2022 was reflected in the current year GASB 74 valuation with December 31, 2022 measurement date.

Section 2: GASB 74 Information

The actuarial assumptions used for the December 31, 2021 valuation were based on the results of the experience study for the period from December 1, 2016 through November 30, 2019 that were approved by the Board effective with the December 31, 2020 valuation and the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2021 (reference: our letter dated May 13, 2022). The assumptions used in the December 31, 2021 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Inflation	2.75%
Health care premium trend rates (used to project health care costs after calendar year 2022):	
Non-Medicare medical plan	Graded from 7.50% in 2022 to ultimate 4.50% over 12 years
Medicare medical plan	Graded from 6.50% in 2022 to ultimate 4.50% over 8 years
Dental	0.00% for the first year to reflect a three-year rate guarantee (premiums fixed at 2021 level for 2022 and 2023) and 4.00% thereafter.
Vision	0.00% for the first three years to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter.
Medicare Part B[5]	4.50%
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.

[5] The actual calendar year 2021 premium increase of 14.55% reflecting the standard 2022 calendar year premium of $170.10 per month, consistent with Segal's Medicare Part B memo dated November 19, 2021 was reflected in the current year GASB 74 valuation with December 31, 2021 measurement date.

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments[6] was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns 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, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2022 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
US large Cap Equity	22.40%	5.43%
US Small Cap Equity	2.50%	6.21%
International Developed Equity	17.00%	6.67%
International Small Cap Equity	3.00%	7.36%
Emerging Markets Equity	5.00%	8.58%
Core Plus Fixed Income	11.50%	1.10%
High Yield Bonds	1.60%	2.91%
Global Fixed Income	3.00%	-0.63%
Private Equity	10.50%	10.00%
Core Real Estate	8.00%	4.58%
Commodities	0.75%	3.46%
Infrastructure	1.75%	7.80%
Private Credit	4.00%	8.50%
Absolute Return	9.00%	3.70%
Total	**100.00%**	**5.56%**

[6] Note that the investment return assumption for SRBR sufficiency (and pension funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

Discount rate. The discount rate used to measure the Total OPEB Liability was 7.00% as of December 31, 2022 and December 31, 2021. The projection of cash flows used to determine the discount rate assumed benefits are paid out of current OPEB SRBR assets. Based on those assumptions, the SRBR OPEB Plan's Fiduciary Net Position was projected to be available to make all projected future benefits payments for current plan members.[7] 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 as of December 31, 2022 and December 31, 2021.

[7] See discussions in Section 1 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB SRBR Plan's Fiduciary Net Position.

Discount rate and trend sensitivity

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2022, calculated using the discount rate of 7.00%, as well as what ACERA'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.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability as of December 31, 2022	$355,666,658	$191,296,247	$55,442,741

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2022, calculated using the current trend rate as well as what ACERA's Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease	Current Trend Rates[8]	1% Increase
Net OPEB Liability as of December 31, 2022	$29,595,345	$191,296,247	$392,245,496

[8] Refer to health care trend assumptions on page 11.

Schedule of changes in Net OPEB Liability – Last two fiscal years

Measurement Date	December 31, 2022	December 31, 2021
Total OPEB Liability		
• Service cost[(1)]	$33,755,489	$33,439,903
• Interest	84,971,113	84,143,669
• Change of benefit terms	0	0
• Differences between expected and actual experience	(27,433,715)	(24,112,098)
• Changes of assumptions	(15,643,051)	(36,047,500)
• Benefit payments	(46,711,117)	(45,916,769)
Net change in Total OPEB Liability	**$28,938,719**	**$11,507,205**
Total OPEB Liability – beginning	**1,203,078,101**	**1,191,570,896**
Total OPEB Liability – ending	**$1,232,016,820**	**$1,203,078,101**
Plan's Fiduciary Net Position		
• Contributions – employer[(2)]	N/A	N/A
• Contributions – member	N/A	N/A
• Net investment income	($534,552,802)	$486,212,907
• Benefit payments	(46,711,117)	(45,916,769)
• Administrative expense	(1,657,000)	(1,537,500)
• Other	0	0
Net change in Plan's Fiduciary Net Position	**($582,920,919)**	**$438,758,638**
Plan's Fiduciary Net Position[(3)] – beginning	**1,623,641,492**	**1,184,882,854**
Plan's Fiduciary Net Position[(3)] – ending	**$1,040,720,573**	**$1,623,641,492**
Net OPEB Liability – ending	**$191,296,247**	**($420,563,391)**
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	**84.47%**	**134.96%**
Covered employee payroll[(4)]	N/A	N/A
Plan Net OPEB Liability as percentage of covered employee payroll	N/A	N/A

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively.

(2) Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

(3) See footnote (2) on page 5 for a discussion on the development of the 2022 "Plan's Fiduciary Net Position – beginning" amount of $1,623,641,492 and the 2022 "Plan's Fiduciary Net Position – ending" amount of $1,040,720,573.

(4) Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

Schedule of Employer contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions[1]	Contributions in Relation to the Actuarially Determined Contributions[1]	Contribution Deficiency / (Excess)	Covered Employee Payroll[2]	Contributions as a Percentage of Covered Employee Payroll
2013	N/A	N/A	0	N/A	N/A
2014	N/A	N/A	0	N/A	N/A
2015	N/A	N/A	0	N/A	N/A
2016	N/A	N/A	0	N/A	N/A
2017	N/A	N/A	0	N/A	N/A
2018	N/A	N/A	0	N/A	N/A
2019	N/A	N/A	0	N/A	N/A
2020	N/A	N/A	0	N/A	N/A
2021	N/A	N/A	0	N/A	N/A
2022	N/A	N/A	0	N/A	N/A

(1) Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

(2) Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

Section 3: Appendices

Appendix A: Projection of OPEB Plan's Fiduciary Net Position for use in the Calculation of Discount Rate as of December 31, 2022

Year Beginning January 1,	Projected Beginning OPEB Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected ending OPEB Plan's Fiduciary Net Positions (f) = (a)+(b)-(c)-(d)+(e)
2022	$1,624	$0	$47	$2	($535)	$1,041
2023	1,041	0	59	1	71	1,051
2024	1,051	0	63	1	71	1,058
2025	1,058	0	67	1	72	1,061
2026	1,061	0	72	1	72	1,060
2027	1,060	0	77	1	71	1,054
2028	1,054	0	81	1	71	1,043
2029	1,043	0	85	1	70	1,027
2030	1,027	0	90	1	69	1,005
2031	1,005	0	94	1	67	976
2032	976	0	99	1	65	941
2033	941	0	104	1	62	899
2034	899	0	108	1	59	849
2035	849	0	112	1	55	792
2036	792	0	116	1	51	726
2037	726	0	120	1	47	652
2038	652	0	124	1	41	569
2039	569	0	128	1	35	476
2040	476	0	131	0*	29	373
2041	373	0	135	0*	21	259
2042	259	0	138	0*	13	134
2043	134	0	142	0*	4	0
2044	0	0	0	0*	0	0
2121	0	0	0	0	0	0
2122	0					
2122	Discounted 0					

** Less than $1 million when rounded.*

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2022 row are actual amounts, based on the financial statements provided by ACERA.
3. Years 2045-2120 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2122, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
5. Column (b): $0. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.
6. Column (c): Projected benefit payments have been determined in accordance with paragraph 43-47 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2021. The projected benefit payments reflect future health care trends. The projected benefit payments include the OPEB SRBR benefits to the extent the current OPEB SRBR (including the portion of deferred investment loss as of December 31, 2022 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.
7. Column (d): Projected administrative expenses are calculated as approximately 0.10% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.10% portion was based on the actual fiscal year 2022 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2022. Administrative expenses are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
9. As illustrated in this Exhibit, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2022 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.

** See discussion on page 2 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.*

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 74. The terms may have different meanings in other contexts.

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; c) Retirement rates — the rate or probability of retirement at a given age; d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits
Discount Rate:	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: 1) the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and 2) 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.
Entry Age Actuarial Cost Method:	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.
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time.
Net OPEB Liability:	The Total OPEB Liability less the Plan Fiduciary Net Position.
Plan Fiduciary Net Position:	Market Value of Assets
Real Rate of Return:	The rate of return on an investment after removing inflation.
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.
Total OPEB Liability:	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 74.
Valuation Date:	The date at which the actuarial valuation is performed

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