

# Mendocino County Employees Retirement Association

## **Actuarial Valuation and Review**

As of June 30, 2023



This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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November 8, 2023

Board of Retirement  
Mendocino County Employees Retirement Association  
625-B Kings Court  
Ukiah, CA 95482-5027

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2024/2025.

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

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

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 economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Andy Yeung, ASA, MAAA, FCA and Enrolled Actuary. We are members of the American Academy of Actuaries and we 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 this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of the Association and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

We look forward to reviewing this report at your next meeting and to answering any questions.

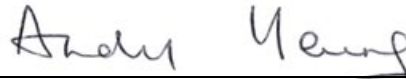
Sincerely,

Segal



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Paul Angelo, FSA, MAAA, FCA, EA  
Senior Vice President and Actuary



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

DNA/jl

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# Section 1: Actuarial Valuation Summary

## Purpose and Basis

This report was prepared by Segal to present a valuation of the Mendocino County Employees Retirement Association (“the Plan”) as of June 30, 2023. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the pension plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2023, provided by the Retirement Association;
- The assets of the Plan as of June 30, 2023, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. that the Board has adopted for the June 30, 2023 valuation; and
- The funding policy adopted by the Board of Retirement.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the Association’s liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association’s liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association’s staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year’s information.

## Section 1: Actuarial Valuation Summary

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both Normal Cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board.<sup>1</sup> Details of the funding policy are provided in *Section 4, Exhibit 1* on page 92.

A schedule of current amortization balances and payments may be found in *Section 3, Exhibit I* on pages 75-78. A graphical projection of the Unfunded Actuarial Accrued Liability (UAAL) amortization balances and payments has been included in *Section 3, Exhibit J* on pages 79-80.

As part of the June 30, 2021 actuarial valuation, we were asked by the Board to provide alternative employer contribution rates under four scenarios such that higher employer UAAL contributions would be required in the near term in exchange for lower employer UAAL contributions in the long term. On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023). Both the June 30, 2022 and June 30, 2023 valuation results in this report reflect the Board's adoption of Scenario 2.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2024 through June 30, 2025.

<sup>1</sup> A "Statement of Actuarial Funding Policy" was adopted by the Board on April 17, 2013. Subsequently, an "Actuarial Practices and Funding Policy" was adopted by the Board on April 19, 2017, which superseded the Statement of Actuarial Funding Policy. The Board amended the Actuarial Practices and Funding Policy on February 21, 2018 and then on June 15, 2022.

# Section 1: Actuarial Valuation Summary

## Valuation Highlights

- Pg. 85 1. The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board for the June 30, 2023 valuation. These changes were documented in our July 1, 2019 through June 30, 2022 Actuarial Experience Study report dated May 11, 2023 and are also outlined in *Section 4, Exhibit 1* of this report. The assumption changes resulted in an increase in the Actuarial Accrued Liability of \$19.0 million (or 2.1%), an increase in the average employer contribution rate of 3.70% of payroll, and an increase in the average member rate of 0.82% of payroll. These impacts also reflect refinements to the calculation of the total normal cost and member cost of living adjustment (COLA) contribution rates, consistent with the methodology changes we used in the estimated cost impact results provided in the experience study report.
- Pgs. 40-41 2. The funded ratio (the ratio of the valuation value of assets to actuarial accrued liability) is 72.4%, compared to the prior year funded ratio of 73.2%. This ratio is one measure of funding status, and its history is a measure of funding progress. The funded ratio measured on a market value basis is 71.6%, compared to 71.4% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions.
- Pgs. 31, 75-80 3. The Association's UAAL increased from \$233.9 million as of June 30, 2022 to \$255.4 million as of June 30, 2023. The increase in UAAL is primarily due to changes in actuarial assumptions and higher than expected individual salary increases for continuing General, Safety, and Probation active members. A reconciliation of the Association's UAAL is provided in *Section 2, Exhibit E*. A schedule of the current UAAL amortization amounts is provided in *Section 3, Exhibit I*. A graphical presentation of the UAAL amortization bases and payments has been provided in *Section 3, Exhibit J*.
- Pg. 25 4. The actuarial loss of \$9.6 million, or 1.0% of the Actuarial Accrued Liability, is due to an investment loss of \$1.0 million, a contribution loss of \$1.3 million, and a net experience loss from sources other than investments and contributions of \$7.4 million prior to reflection of assumption changes. This loss from sources other than investment and contribution experience was primarily due to individual salary increases higher than expected and higher than expected COLA increases for retirees and beneficiaries.
- Pg. 34 5. The aggregate employer rate calculated in this valuation has increased from 36.92% of payroll to 40.26% of payroll. This increase is primarily due to changes in actuarial assumptions, higher than expected individual salary increases for continuing General, Safety, and Probation active members, higher than expected COLA increases for retirees and beneficiaries, and lower than expected return on investments (after asset smoothing). These losses were partially offset by amortizing the prior year's UAAL over a larger than expected projected total payroll and other experience gains.

Note that the aggregate employer rate has increased by about 2% of payroll for General, about 12% of payroll for Safety, and about 4% of payroll for Probation. These increases are primarily due to different changes in actuarial assumptions for each of the three groups, combined with the different payroll bases used to amortize unfunded liabilities. For instance, total payroll used for said amortization increased by 8.5% for General, increased by 2.9% for Safety, and decreased by 9.6% for Probation, all compared to the expected



## Section 1: Actuarial Valuation Summary

increase of 3.25% for each membership group. A reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection F.

Note that for the Probation group, there were other factors that led to a net experience gain for that group. Specifically, there were more terminations than expected, including three members with over 10 years of service. There were also several inactive vested Probation members who were reclassified by MCERA from reciprocal status to deferred non-reciprocal status. These events combined for a gain of about \$1.5 million. In addition, there was a slightly higher percentage of the reserves allocated to the Probation group as provided by MCERA compared to the reserves provided as of June 30, 2022, which increased the valuation value of assets for that group by about \$300 thousand. These sources of gains were offset somewhat by salary losses for continuing active members and COLA losses for payees.

- Pg. 35 6. The aggregate member rate calculated in this valuation has increased from 9.76% of payroll to 10.52% of payroll. The increase in member rate is primarily due to the impact of assumption changes, offset somewhat by changes in member demographics amongst the tiers. A reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection F.

Note that earlier this year, another consulting firm was contracted by the Board to review the liabilities and contribution rates determined in our June 30, 2022 valuation for the 2023/2024 fiscal year. One of the recommendations from the other firm was that we should use the same "entry age" in the actuarial valuation that is used by MCERA to look up the individual employee contribution rates. For this June 30, 2023 valuation, MCERA provided Segal with that entry age information for about 40 active members. We will continue to work with the Association to provide Segal with the entry age information for employee contribution rates for non-CalPEPRA members in future valuations.

- Pgs. 109-119 The individual member rates have been updated to reflect the valuation as of June 30, 2023. These rates are provided in *Section 4, Exhibit 3* of this report.

- Pg. 39 7. Under the Board's funding policy, in addition to the UAAL contribution rate, a dollar amortization amount equal to the UAAL contribution rate times the covered payroll (as estimated in the actuarial valuation that establishes such UAAL contribution rate) will be calculated for each employer. The final UAAL payment by each employer will be equal to the greater of the UAAL contribution rate times the actual covered payroll or the above dollar amortization amount.

Based on information provided by MCERA, we understand that there was no shortfall in the UAAL contributions for Fiscal Year (FY) 2022/2023 for any employer.

- Pg. 26 8. The rate of return on the Market Value of Assets was 8.12% for the July 1, 2022 to June 30, 2023 plan year. The return on the Valuation Value of Assets was 6.60% for the same period after the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 6.75%. This actuarial investment loss increased the average employer contribution rate by 0.08% of pay.

## Section 1: Actuarial Valuation Summary

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9. As indicated in Section 2, Subsection B, the total unrecognized investment loss as of June 30, 2023 is \$14.0 million (note that in the previous valuation, this amount was a deferred loss of \$21.9 million). This net investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This implies that if the Association earns the assumed net rate of investment return of 6.50% per year on a **market value** basis, there will be investment losses on the actuarial value of assets after June 30, 2023.

The net deferred loss of \$14.0 million represents 2.1% of the market value of assets as of June 30, 2023. Unless offset by future investment gains or other favorable experience, the \$14.0 million net deferred market loss is expected to have an impact on the Association's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows.

- a. If the net deferred loss was recognized immediately, and assuming further that the balance in the Contingency Reserve would be included as valuation value of assets, the funded percentage would decrease from 72.4% to 71.6%.

For comparison purposes, if the deferred loss in the June 30, 2022 valuation and the Contingency Reserve had been recognized immediately in the June 30, 2022 valuation, the funded percentage would have decreased from 73.2% to 71.4%.

- b. If the net deferred loss was recognized immediately, and assuming further that the balance in the Contingency Reserve would be included as valuation value of assets, the aggregate employer rate would increase from 40.26% to about 40.9% of payroll.

For comparison purposes, if the net deferred loss in the June 30, 2022 valuation and the Contingency Reserve had been recognized immediately in the June 30, 2022 valuation, the aggregate employer contribution rate would have increased from 37.18% to about 38.7% of payroll.

10. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2023. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

- Pg. 23 11. The allocation of the valuation value of assets between basic and cost-of-living (COL) as of June 30, 2023 is provided in Section 2, Subsection B, and is developed based on the reserves identified as either basic or COL (at book value as of June 30, 2023) as reported by MCERA. We understand that MCERA will transition to carrying reserves on their financial statements at the actuarial valuation value after the June 30, 2023 valuation. We note that this adjustment to be made after this year's valuation does not change the total assets available to set the employer contribution rate for each of General, Safety, and Probation membership groups.

- Pg. 44 12. Actuarial Standard of Practice No. 51 (ASOP 51) requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition." Examples of key risks listed that are particularly relevant to MCERA are asset/liability mismatch risk, investment risk, and longevity risk. The standard also requires an actuary to consider if there is any ongoing contribution risk to the plan, however it does not require the actuary to evaluate the particular ability or willingness of contributing entities

## Section 1: Actuarial Valuation Summary

to make contributions when due, nor does it require the actuary to assess the likelihood or consequences of future changes in applicable law.

The actuary's initial assessment can be strictly a qualitative discussion about potential adverse experience and the possible effect on future results, but it may also include quantitative numerical demonstrations where informative. The actuary is also encouraged to consider a recommendation as to whether a more detailed assessment or risk report would be significantly beneficial for the intended user in order to examine particular financial risks. When making that recommendation, the actuary will take into account such factors as the plan's design, risk profile, maturity, size, funded status, asset allocation, cash flow, possible insolvency and current market conditions.

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan. After the completion of the triennial experience study recommending assumptions for the June 30, 2020 valuation, we prepared a stand-alone Risk Assessment report dated July 7, 2020 by using membership and financial information as provided in the actuarial valuation as of June 30, 2019. That report includes various projections (both deterministic and stochastic) of future results under different investment return scenarios together with the assumptions adopted for the June 30, 2020 valuation. Based on our discussions with MCERA, Segal will be updating that Risk Assessment report after the June 30, 2023 valuation, using the new actuarial assumptions adopted by the Board for this valuation.

In the interim, we have included a brief discussion of key risks that may affect the Association in Section 2, Subsection J. Again, for a more detailed assessment of the risks tailored to specific interests or concerns of the Board, please refer to our Risk Assessment report dated July 7, 2020.

Note that this year the risk assessment section includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDRM). This disclosure, along with commentary on the significance of the LDRM, is a new requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports.

13. 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 UAAL and the principal balance. The funding policy adopted by the Board as described in Section 4, Exhibit 1 meets this standard.
14. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution (ADC) under the Association's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of June 30, 2023, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

## Section 1: Actuarial Valuation Summary

### Summary of Key Valuation Results

|  |                                | June 30, 2023      |   | June 30, 2022      |   |
|--|--------------------------------|--------------------|---|--------------------|---|
|  |                                | Total Rate         | Estimated Annual Dollar Amount <sup>1</sup> | Total Rate         | Estimated Annual Dollar Amount <sup>1</sup> |
| <b>Employer Contribution Rates:</b><br>(payable at the end of each pay period) | • General Tier 1               | 43.62%             | \$46,000                                    | 39.97%             | \$42,000                                    |
|  | • General Tier 2/Tier 3        | 37.51%             | 9,522,000                                   | 34.64%             | 8,794,000                                   |
|  | • General Tier 4               | 32.98%             | 16,370,000                                  | 31.60%             | 15,685,000                                  |
|  | • Safety Tier 1                |                    | Not Calculated <sup>2</sup>                 |                    |   |
|  | • Safety Tier 2                | 83.92%             | 5,366,000                                   | 70.30%             | 4,495,000                                   |
|  | • Safety Tier 3                | 70.70%             | 4,203,000                                   | 60.63%             | 3,604,000                                   |
|  | • Probation Tier 1             |                    | Not Calculated <sup>2</sup>                 |                    |   |
|  | • Probation Tier 2             | 34.94%             | 617,000                                     | 29.22%             | 516,000                                     |
|  | • Probation Tier 3             | 26.77%             | 404,000                                     | 24.24%             | 366,000                                     |
|  | <b>All Categories Combined</b> | <b>40.26%</b>      | <b>\$36,528,000</b>                         | <b>36.92%</b>      | <b>\$33,502,000</b>                         |
| <b>Average Member Contribution Rates:</b>                                      | • General Tier 1 <sup>3</sup>  | 0.00%              | \$0   | 0.00%              | \$0   |
|  | • General Tier 2/Tier 3        | 11.31%             | 2,871,000                                   | 11.09%             | 2,815,000                                   |
|  | • General Tier 4               | 9.13%              | 4,532,000                                   | 8.25%              | 4,095,000                                   |
|  | • Safety Tier 1                |                    | Not Calculated <sup>2</sup>                 |                    |   |
|  | • Safety Tier 2                | 13.55%             | 866,000                                     | 12.18%             | 779,000                                     |
|  | • Safety Tier 3                | 13.69%             | 814,000                                     | 12.11%             | 720,000                                     |
|  | • Probation Tier 1             |                    | Not Calculated <sup>2</sup>                 |                    |   |
|  | • Probation Tier 2             | 15.04%             | 265,000                                     | 14.57%             | 257,000                                     |
|  | • Probation Tier 3             | 13.40%             | 202,000                                     | 12.52%             | 189,000                                     |
| <b>All Categories Combined</b>   | <b>10.52%</b>                  | <b>\$9,550,000</b> | <b>9.76%</b>                                | <b>\$8,855,000</b> |   |

<sup>1</sup> Based on June 30, 2023 projected compensation.

<sup>2</sup> There were no Safety Tier 1 or Probation Tier 1 active members reported for the June 30, 2023 and June 30, 2022 valuations.

<sup>3</sup> The General Tier 1 member is exempt from employee contributions (i.e., they have a 0.00% member contribution rate because they have 30 or more years of service).

## Section 1: Actuarial Valuation Summary

### Summary of Key Valuation Results (continued)

|   |  | June 30, 2023   | June 30, 2022   |
|---|--|---|---|
| <b>Actuarial Accrued Liability as of June 30:</b> | <ul style="list-style-type: none"> <li>• Retired members and beneficiaries</li> <li>• Inactive vested members</li> <li>• Active members</li> <li>• Total Actuarial Accrued Liability</li> <li>• Normal Cost for plan year beginning June 30</li> </ul>                                       | \$616,487,951<br>33,837,153<br>276,305,899<br>926,631,003<br>20,689,000 | \$573,324,047<br>43,199,486<br>255,067,201<br>871,590,734<br>17,540,000 |
| <b>Assets as of June 30:</b>                      | <ul style="list-style-type: none"> <li>• Market Value of Assets (MVA)</li> <li>• Actuarial Value of Assets (AVA)</li> <li>• AVA as a percentage of MVA</li> <li>• Valuation Value of Assets (VVA)<sup>1</sup></li> </ul>   | \$663,909,608<br>677,876,651<br>102.1%<br>\$671,244,999                 | \$621,934,385<br>643,850,234<br>103.5%<br>\$637,645,858                 |
| <b>Funded status as of June 30:</b>               | <ul style="list-style-type: none"> <li>• Unfunded Actuarial Accrued Liability on MVA basis</li> <li>• Funded percentage on MVA basis</li> <li>• Unfunded Actuarial Accrued Liability on VVA basis</li> <li>• Funded percentage on VVA basis</li> </ul>                                       | \$262,721,395<br>71.6%<br>\$255,386,004<br>72.4%                        | \$249,656,349<br>71.4%<br>\$233,944,876<br>73.2%                        |
| <b>Key assumptions:</b>                           | <ul style="list-style-type: none"> <li>• Net investment return</li> <li>• Inflation rate</li> <li>• Real across-the-board salary increase</li> <li>• Payroll growth</li> <li>• COLA assumption for tiers providing a COLA</li> <li>• Amortization period on VVA basis<sup>2</sup></li> </ul> | 6.50%<br>2.50%<br>0.50%<br>3.00%<br>2.75%<br>18 years                   | 6.75%<br>2.75%<br>0.50%<br>3.25%<br>2.75%<br>18 years                   |

<sup>1</sup> Excludes Contingency Reserve.

<sup>2</sup> Changes in UAAL as a result of gains or losses for each valuation are amortized over separate 18-year periods. Details on the funding policy are provided in *Section 4, Exhibit 1*.

## Section 1: Actuarial Valuation Summary

### Summary of Key Valuation Results (continued)

|   | June 30, 2023 | June 30, 2022 | Change From Prior Year |
|---|---------------|---------------|------------------------|
| <b>Demographic data as of June 30:</b>      |               |               |                        |
| <b>Active Members:</b>                      |               |               |                        |
| • Number of members                         | 1,150         | 1,123         | 2.4%                   |
| • Average age                               | 45.3          | 45.7          | -0.4                   |
| • Average service <sup>1</sup>              | 8.8           | 8.5           | 0.3                    |
| • Total projected compensation <sup>2</sup> | \$90,739,475  | \$84,828,649  | 7.0%                   |
| • Average projected compensation            | \$78,904      | \$75,538      | 4.5%                   |
| <b>Retired Members and Beneficiaries:</b>   |               |               |                        |
| • Number of members:                        |               |               |                        |
| – Service retired                           | 1,309         | 1,290         | 1.5%                   |
| – Disability retired                        | 172           | 175           | -1.7%                  |
| – Beneficiaries                             | 197           | 185           | 6.5%                   |
| – Total                                     | 1,678         | 1,650         | 1.7%                   |
| • Average age                               | 71.3          | 70.8          | 0.5                    |
| • Average monthly benefit                   | \$2,259       | \$2,161       | 4.5%                   |
| <b>Inactive Vested Members:</b>             |               |               |                        |
| • Number of members <sup>3</sup>            | 879           | 923           | -4.8%                  |
| • Average Age                               | 48.0          | 48.9          | -0.9                   |
| <b>Total Members:</b>                       | <b>3,707</b>  | <b>3,696</b>  | <b>0.3%</b>            |

<sup>1</sup> Eligibility service, starting with the June 30, 2023 valuation, which includes incoming reciprocal service for some active members.

<sup>2</sup> For June 30, 2023 (June 30, 2022), total projected compensation represents the annualized actual pensionable compensation earned during the 2022/2023 (2021/2022) fiscal year, but limited to the annualized biweekly pay rate plus other annual pensionable pay as of the measurement date, and projected to account for expected salary increases for the following fiscal year based on the actuarial assumptions.

<sup>3</sup> Includes inactive members due a refund of member contributions.

## Section 1: Actuarial Valuation Summary

### Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. 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.

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

|                                |  |
|--------------------------------|--|
| <b>Plan provisions</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. 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 information</b> | An actuarial valuation for a plan is based on data provided to the actuary by the Association. 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 important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.  |
| <b>Financial information</b>   | Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the Association. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.   |
| <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. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan’s benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. 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. All of these factors are uncertain and unknowable. Thus, there is a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected 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 may use approximations and estimates that will have an immaterial impact on our results. 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 valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of 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 user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.

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.

If the Association 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.

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 Association 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.

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

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



# Section 2: Actuarial Valuation Results

## A. Member Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive vested members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A - E*.

### Member Population: 2014 – 2023

| Year Ended June 30 | Active Members | Inactive Vested Members <sup>1</sup> | Retired Members and Beneficiaries | Total Non-Actives | Ratio of Non-Actives to Actives | Ratio of Retired Members and Beneficiaries to Actives |
|--------------------|----------------|--------------------------------------|-----------------------------------|-------------------|---------------------------------|---|
| 2014               | 1,081          | 394                                  | 1,328                             | 1,722             | 1.59                            | 1.23  |
| 2015               | 1,107          | 414                                  | 1,379                             | 1,793             | 1.62                            | 1.25  |
| 2016               | 1,123          | 428                                  | 1,416                             | 1,844             | 1.64                            | 1.26  |
| 2017               | 1,123          | 479                                  | 1,462                             | 1,941             | 1.73                            | 1.30  |
| 2018               | 1,162          | 497                                  | 1,490                             | 1,987             | 1.71                            | 1.28  |
| 2019               | 1,151          | 515                                  | 1,552                             | 2,067             | 1.80                            | 1.35  |
| 2020               | 1,140          | 546                                  | 1,587                             | 2,133             | 1.87                            | 1.39  |
| 2021               | 1,142          | 577                                  | 1,615                             | 2,192             | 1.92                            | 1.41  |
| 2022               | 1,123          | 923 <sup>2</sup>                     | 1,650                             | 2,573             | 2.29                            | 1.47  |
| 2023               | 1,150          | 879                                  | 1,678                             | 2,557             | 2.22                            | 1.46  |

<sup>1</sup> Includes terminated members due a refund of member contributions.

<sup>2</sup> There was an increase of about 309 inactive members due a pending refund of member contributions because MCERA had not credited all required interest to those members before they were refunded in prior years.

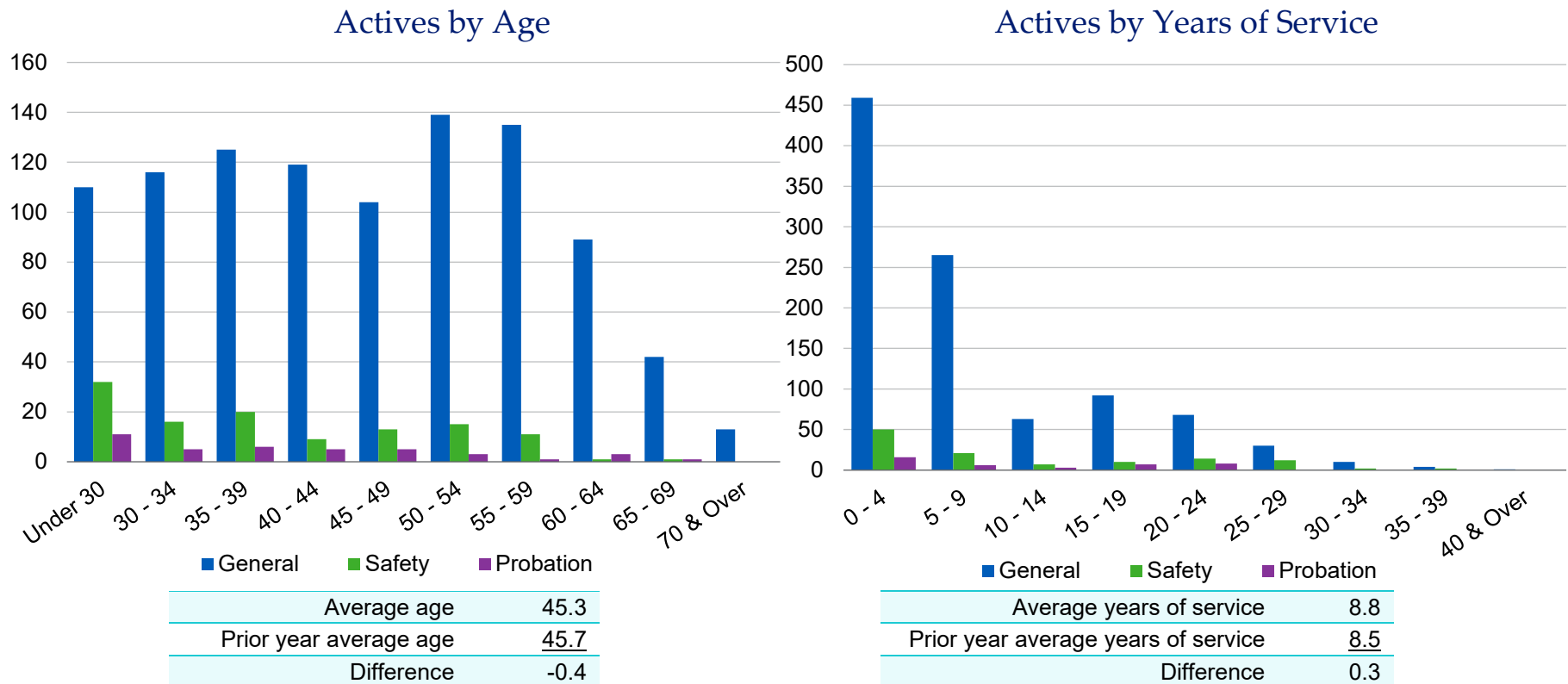
## Section 2: Actuarial Valuation Results

### Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 1,150 active members with an average age of 45.3, average years of service of 8.8 years and average compensation of \$78,904. The 1,123 active members in the prior valuation had an average age of 45.7, average service of 8.5 years and average compensation of \$75,538.

Among the active members, there were none with unknown age information.

Distribution of Active Members as of June 30, 2023



### Inactive Members

In this year's valuation, there were 879 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 923 in the prior valuation.

## Section 2: Actuarial Valuation Results

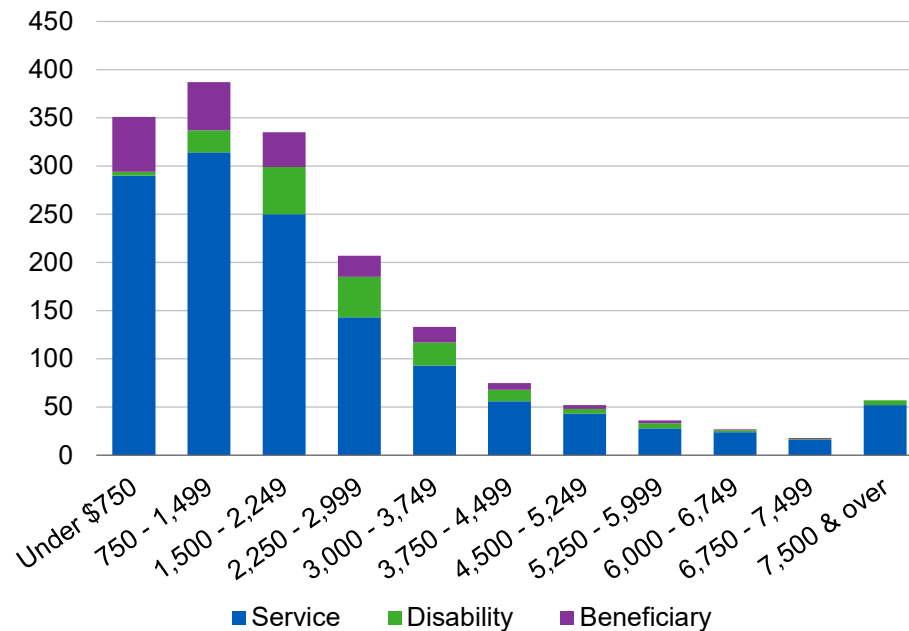
### Retired Members and Beneficiaries

As of June 30, 2023, 1,481 retired members and 197 beneficiaries were receiving total monthly benefits of \$3,791,359. For comparison, in the previous valuation, there were 1,465 retired members and 185 beneficiaries receiving monthly benefits of \$3,565,948.

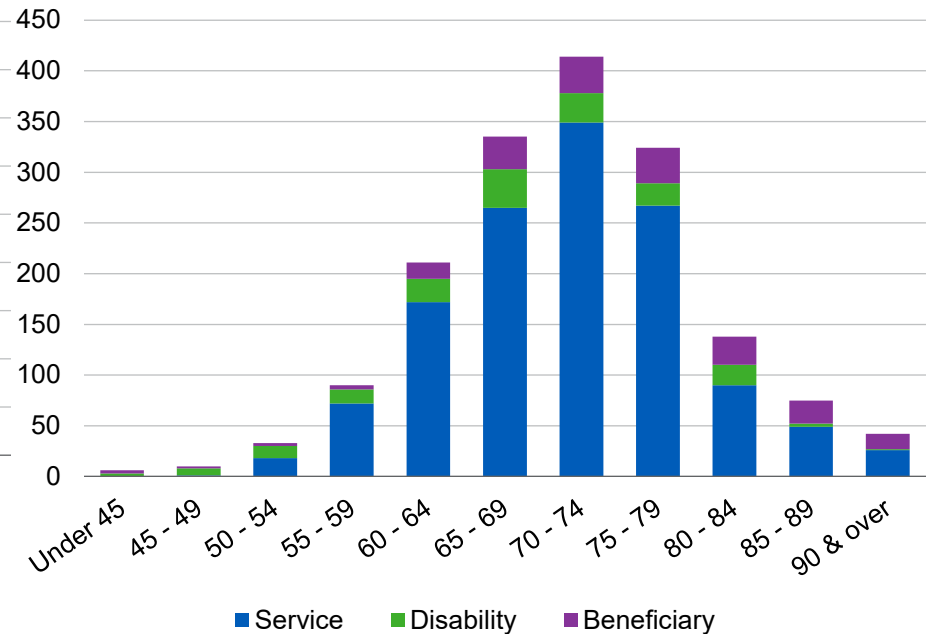
As of June 30, 2023, the average monthly benefit for retired members and beneficiaries is \$2,259, compared to \$2,161 in the previous valuation. The average age for retired members and beneficiaries is 71.3 in the current valuation, compared with 70.8 in the prior valuation.

Distribution of Retired Members and Beneficiaries as of June 30, 2023

Retired Members and Beneficiaries  
by Type and Monthly Amount



Retired Members and Beneficiaries  
by Type and Age



## Section 2: Actuarial Valuation Results

### Historical Plan Population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

#### Member Data Statistics: 2014 – 2023

| Year Ended<br>June 30 | Active Members |                |                    | Retired Members and Beneficiaries |                |                              |
|-----------------------|----------------|----------------|--------------------|-----------------------------------|----------------|------------------------------|
|                       | Count          | Average<br>Age | Average<br>Service | Count                             | Average<br>Age | Average<br>Monthly<br>Amount |
| 2014                  | 1,081          | 47.3           | 9.8                | 1,328                             | 68.3           | \$1,708                      |
| 2015                  | 1,107          | 47.2           | 9.4                | 1,379                             | 68.6           | 1,768                        |
| 2016                  | 1,123          | 47.0           | 9.1                | 1,416                             | 68.8           | 1,822                        |
| 2017                  | 1,123          | 46.7           | 9.1                | 1,462                             | 69.1           | 1,846                        |
| 2018                  | 1,162          | 46.5           | 8.8                | 1,490                             | 69.3           | 1,919                        |
| 2019                  | 1,151          | 45.9           | 8.6                | 1,552                             | 69.5           | 1,979                        |
| 2020                  | 1,140          | 46.2           | 8.7                | 1,587                             | 70.0           | 2,047                        |
| 2021                  | 1,142          | 46.1           | 8.8                | 1,615                             | 70.5           | 2,059                        |
| 2022                  | 1,123          | 45.7           | 8.5                | 1,650                             | 70.8           | 2,161                        |
| 2023                  | 1,150          | 45.3           | 8.8                | 1,678                             | 71.3           | 2,259                        |

## Section 2: Actuarial Valuation Results

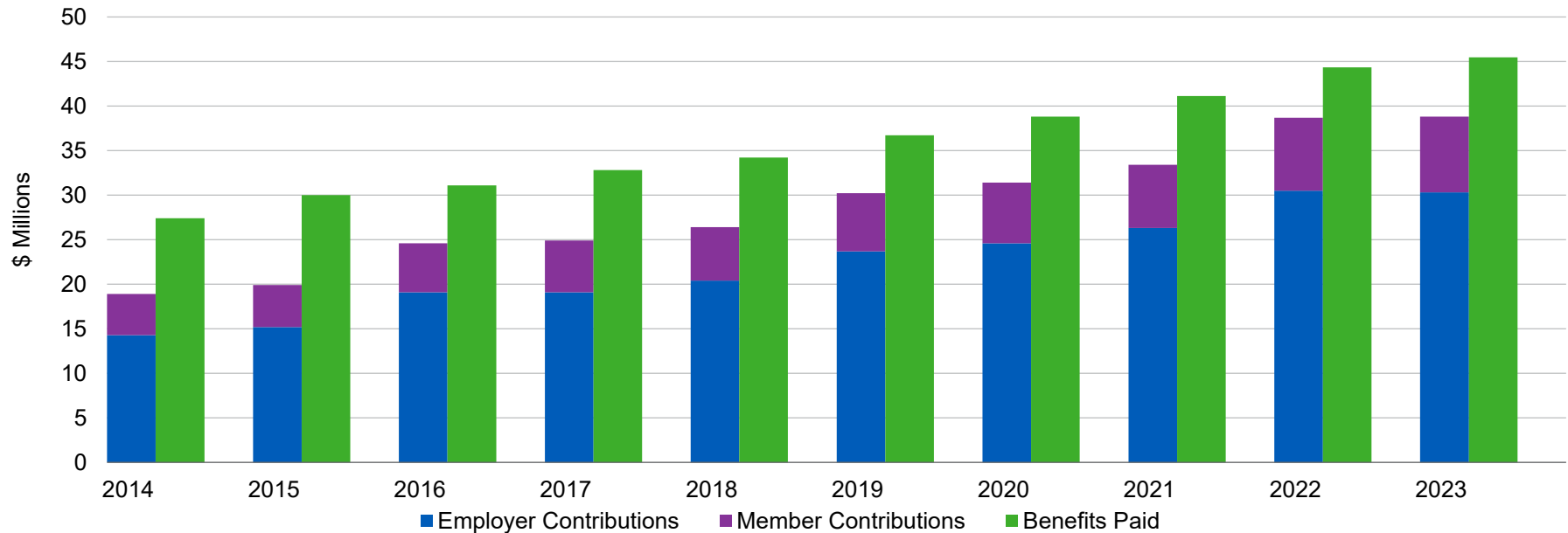
### B. Financial Information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits F, G, and H*.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits for Years Ended June 30, 2014 – 2023



## Section 2: Actuarial Valuation Results

### Determination of Actuarial Value of Assets for Year Ended June 30, 2023

| <b>1 Market Value of Assets</b> |   |                          |  |                                   |                             | <b>\$663,909,608</b>       |
|---------------------------------|---|--------------------------|--|-----------------------------------|-----------------------------|----------------------------|
|                                 |   | <b>Actual<br/>Return</b> | <b>Expected<br/>Return<sup>1</sup></b> | <b>Investment<br/>Gain/(Loss)</b> | <b>Percent<br/>Deferred</b> | <b>Deferred<br/>Return</b> |
| <b>2</b>                        | Calculation of deferred return  |                          |  |                                   |                             |                            |
| a.                              | Year ended June 30, 2020  | \$14,798,654             | \$36,992,115                           | \$(22,193,461)                    | 20%                         | \$(4,438,692)              |
| b.                              | Year ended June 30, 2021  | 166,513,422              | 36,075,952                             | 130,437,470                       | 40%                         | 52,174,988                 |
| c.                              | Year ended June 30, 2022  | (67,368,382)             | 46,768,862                             | (114,137,244)                     | 60%                         | (68,482,346)               |
| d.                              | Year ended June 30, 2023  | 50,177,503               | 41,703,744                             | 8,473,759                         | 80%                         | <u>6,779,007</u>           |
| e.                              | Total deferred return <sup>1</sup>  |                          |  |                                   |                             | \$(13,967,043)             |
| <b>3</b>                        | <b>Preliminary Actuarial Value of Assets (1) - (2e)</b>                   |                          |  |                                   |                             | <b>\$677,876,651</b>       |
| <b>4</b>                        | Adjustment to be within 25% corridor                                      |                          |  |                                   |                             | 0                          |
| <b>5</b>                        | <b>Final Actuarial Value of Assets 3 + 4</b>                              |                          |  |                                   |                             | <b>\$677,876,651</b>       |
| <b>6</b>                        | Actuarial Value of Assets as a percentage of Market Value of Assets 5 ÷ 1 |                          |  |                                   |                             | 102.1%                     |
| <b>7</b>                        | Non-valuation reserves and designations:                                  |                          |  |                                   |                             |                            |
|                                 | Contingency Reserve   |                          |  |                                   |                             | \$6,631,652                |
| <b>8</b>                        | <b>Final Valuation Value of Assets<sup>2</sup> (5) – (7)</b>              |                          |  |                                   |                             | <b>\$671,244,999</b>       |

<sup>1</sup> Deferred return as of June 30, 2023 to be recognized in each of the next four years (amounts may not total properly due to rounding):

|    |   |                  |
|----|---|------------------|
| a. | Amount recognized on June 30, 2024            | \$516,105        |
| b. | Amount recognized on June 30, 2025            | 4,954,797        |
| c. | Amount recognized on June 30, 2026            | (21,132,697)     |
| d. | Amount recognized on June 30, 2027            | <u>1,694,752</u> |
| e. | Total unrecognized return as of June 30, 2023 | \$(13,967,043)   |

<sup>2</sup> Note that the valuation value of assets for each of the General, Safety, and Probation membership groups has generally been calculated in proportion to the book value reserves maintained by MCERA for those three membership groups. The allocation of the valuation value of assets between the three membership groups is provided in the chart on the next page.

## Section 2: Actuarial Valuation Results

The allocation of the valuation value of assets as of June 30, 2023 by membership group was determined as follows:

### Allocation of the Valuation Value of Assets as of June 30, 2023

|   | <u>Account ID</u>  | <u>General</u>     | <u>Safety</u>     | <u>Probation</u>  | <u>Total</u>       |
|---|--|--------------------|-------------------|-------------------|--------------------|
| <b>BASIC</b>  |  |                    |                   |                   |                    |
| <u>Reserves at Book Value (Provided by MCERA)</u>                   |  |                    |                   |                   |                    |
| Employee Contributions with Interest <sup>(1)</sup>                 | 4000, 4001 & 4002  | \$49,789,738       | \$8,199,377       | \$3,878,241       | \$61,867,356       |
| County Advance Reserve (Basic)                                      | 4501, 4502, 4503, 4510, 4511, 4512, 4513, 4520, 4521, & 4522 | -47,437,437        | -14,983,193       | 3,898,731         | -58,521,899        |
| Retirees Annuity Reserve  | 4110, 4111, 4120, 4121, 4122, 4123, 4130, 4131, & 4132       | 70,720,033         | 10,642,748        | 3,342,630         | 84,705,411         |
| Retirees Current Service Reserve                                    | 4210, 4211, 4220, 4221, 4222, 4223, 4230, 4231, & 4232       | 169,581,173        | 66,560,620        | 9,848,616         | 245,990,408        |
| Survivors Death Benefit Reserve                                     | 4310, 4311, 4312, 4320, 4321, 4322, 4323, 4330, & 4331       | <u>7,133,750</u>   | <u>2,058,962</u>  | <u>159,914</u>    | <u>9,352,627</u>   |
| Subtotal  |  | \$249,787,258      | \$72,478,514      | \$21,128,132      | \$343,393,903      |
| <br>  |  |                    |                   |                   |                    |
| Valuation Value of Assets (VVA; Calculated by Segal) <sup>(2)</sup> |  | \$283,777,473      | \$82,341,147      | \$24,003,177      | \$390,121,797      |
| <br>  |  |                    |                   |                   |                    |
| <b>COL</b>  |  |                    |                   |                   |                    |
| <u>Reserves at Book Value (Provided by MCERA)</u>                   |  |                    |                   |                   |                    |
| Employee Contributions with Interest <sup>(1)</sup>                 | 4003 & 4004  | \$11,482,898       | \$3,387,719       | \$1,472,378       | \$16,342,994       |
| County Advance Reserve (COLA)                                       | 4514, 4515, & 4523   | -9,919,802         | -721,856          | 1,076,723         | -9,564,934         |
| Retirees COLA Reserve   | 4410, 4411, 4420, 4421, 4422, 4423, 4430, 4431, & 4432       | <u>168,475,936</u> | <u>61,879,848</u> | <u>10,317,065</u> | <u>240,672,850</u> |
| Subtotal  |  | \$170,039,032      | \$64,545,712      | \$12,866,166      | \$247,450,910      |
| <br>  |  |                    |                   |                   |                    |
| Valuation Value of Assets (Calculated by Segal) <sup>(3)</sup>      |  | \$193,177,375      | \$73,328,876      | \$14,616,951      | \$281,123,202      |
| <br>  |  |                    |                   |                   |                    |
| <b>TOTAL</b>  |  |                    |                   |                   |                    |
| Reserves at Book Value (Provided by MCERA)                          |  | \$419,826,289      | \$137,024,225     | \$33,994,298      | \$590,844,813      |
| Valuation Value of Assets (Calculated by Segal)                     |  | 476,954,848        | 155,670,023       | 38,620,128        | 671,244,999        |

<sup>(1)</sup> Breakdown of total amount is allocated by Segal based on proportion of member contribution account balances of active and inactive vested members included in the valuation.

<sup>(2)</sup> The total basic VVA is allocated by Segal based on the proportion of total basic reserves to total basic and COL reserves provided by MCERA. The breakdown of the basic VVA between groups is allocated based on the subtotal basic reserves.

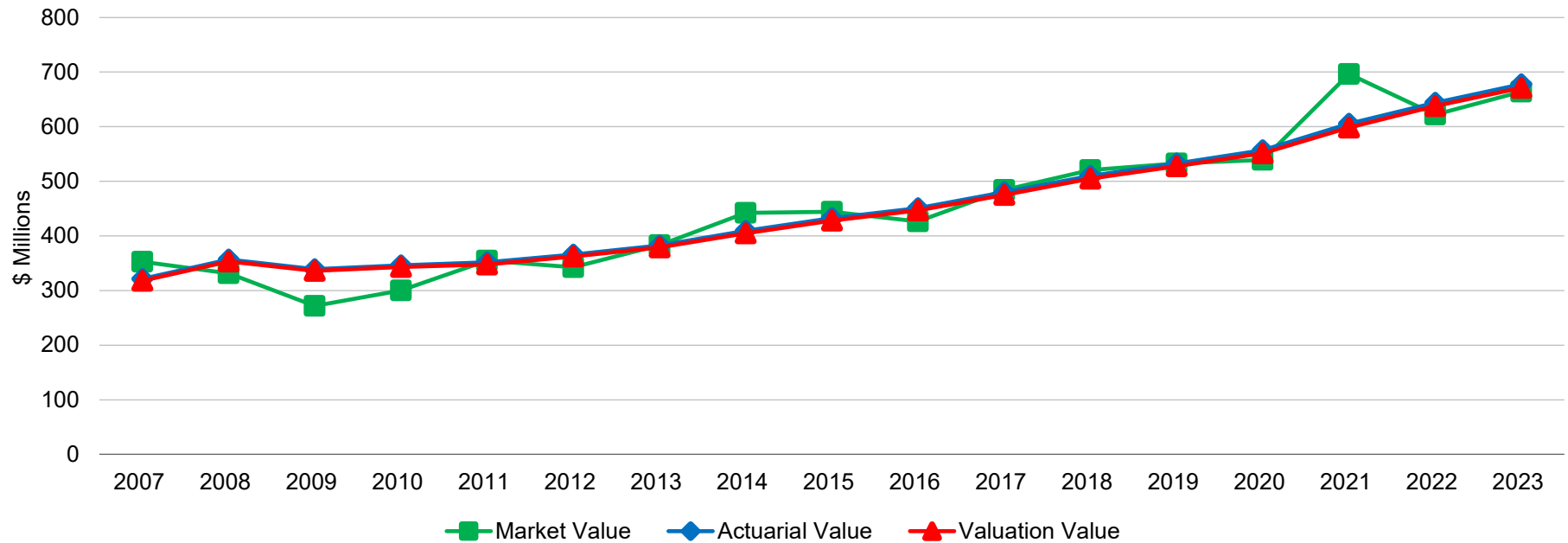
<sup>(3)</sup> The total COL VVA is allocated by Segal based on the proportion of total COL reserves to total basic and COL reserves provided by MCERA. The breakdown of the COL VVA between groups is allocated based on the subtotal COL reserves.

Note: Results may be slightly off due to rounding.

## Section 2: Actuarial Valuation Results

The Market Value, Actuarial Value, and Valuation Value of Assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the Actuarial Value of Assets tracks the Market Value of Assets. The Valuation Value of Assets is the actuarial value, excluding any non-valuation reserves. The Valuation Value of Assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the Unfunded Actuarial Accrued Liability is an important element in determining the contribution requirement.

Market Value, Actuarial Value, and Valuation Value of Assets as of June 30, 2007 – 2023





## Section 2: Actuarial Valuation Results

### C. Actuarial Experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. There are no changes in actuarial assumptions reflected in this valuation.

The total loss is \$9.6 million, which includes \$1.0 million from investment losses, a loss of \$1.3 million from contribution experience and \$7.4 million in losses from all other sources. The net experience variation from individual sources other than investments was 0.8% of the Actuarial Accrued Liability. A discussion of the major components of the actuarial experience is on the following pages.

#### Actuarial Experience for Year Ended June 30, 2023

|          |   |                      |
|----------|---|----------------------|
| <b>1</b> | Net loss from investments <sup>1</sup>      | \$(962,847)          |
| <b>2</b> | Net loss from contribution experience       | (1,268,768)          |
| <b>3</b> | Net loss from other experience <sup>2</sup> | <u>(7,417,326)</u>   |
| <b>4</b> | <b>Net experience loss: 1 + 2 + 3</b>       | <b>\$(9,648,941)</b> |

<sup>1</sup> Details on next page.

<sup>2</sup> See Subsection E for further details. Does not include the effect of plan or assumption changes, if any.

## Section 2: Actuarial Valuation Results

### Investment Experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. The rate of return on the Market Value of Assets was 8.12% for the year ended June 30, 2023.

For valuation purposes, the assumed rate of return on the Valuation Value of Assets was 6.75% for the June 30, 2022 valuation. The actual rate of return on a valuation basis for the 2022/2023 plan year was 6.60%. Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss during the year ended June 30, 2023 with regard to its investments.

#### Investment Experience for Year Ended June 30, 2023

|   | Market Value       | Actuarial Value    | Valuation Value    |
|---|--------------------|--------------------|--------------------|
| <b>1</b> Net investment income                    | \$50,177,503       | \$42,228,697       | \$41,801,421       |
| <b>2</b> Average value of assets                  | 617,833,245        | 639,749,094        | 633,544,718        |
| <b>3</b> Rate of return: <b>1 ÷ 2</b>             | 8.12%              | 6.60%              | 6.60%              |
| <b>4</b> Assumed rate of return                   | 6.75%              | 6.75%              | 6.75%              |
| <b>5</b> Expected investment income: <b>2 x 4</b> | \$41,703,744       | \$43,183,064       | \$42,764,268       |
| <b>6</b> Actuarial gain/(loss): <b>1 - 5</b>      | <b>\$8,473,759</b> | <b>\$(954,367)</b> | <b>\$(962,847)</b> |

## Section 2: Actuarial Valuation Results

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial and valuation basis compared to the actual market value investment return for the last ten years, including averages over select time periods.

### Investment Return – Market Value, Actuarial Value and Valuation Value: 2014 – 2023

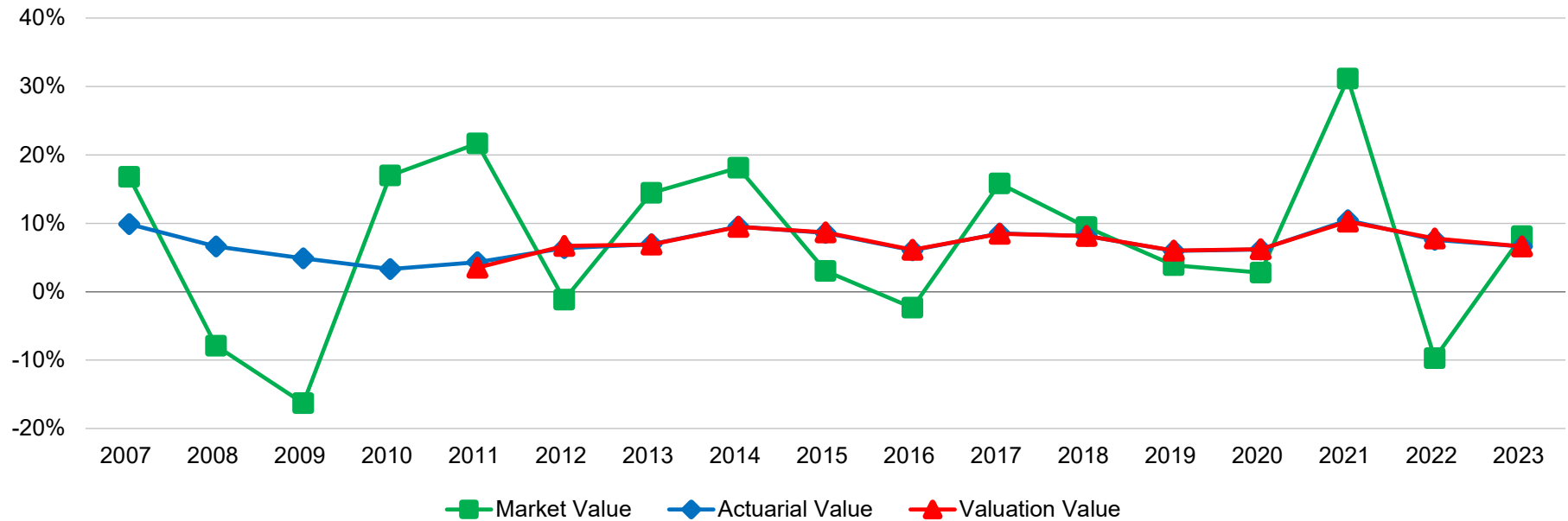
| Year Ended<br>June 30                       | Market Value<br>Investment Return <sup>1</sup> |              | Actuarial Value<br>Investment Return |              | Valuation Value<br>Investment Return |              |
|---|--|--------------|--------------------------------------|--------------|--------------------------------------|--------------|
|   | Amount   | Percent      | Amount                               | Percent      | Amount                               | Percent      |
| 2014  | \$68,494,950                                   | 18.10%       | \$36,055,066                         | 9.54%        | \$35,462,137                         | 9.48%        |
| 2015  | 13,201,309                                     | 3.02%        | 34,687,586                           | 8.59%        | 34,665,488                           | 8.68%        |
| 2016  | (10,352,325)                                   | (2.35)%      | 25,892,595                           | 6.04%        | 26,071,363                           | 6.14%        |
| 2017  | 66,669,864                                     | 15.80%       | 38,015,912                           | 8.51%        | 37,432,810                           | 8.46%        |
| 2018  | 45,271,985                                     | 9.44%        | 38,812,527                           | 8.16%        | 38,447,528                           | 8.17%        |
| 2019  | 19,959,119                                     | 3.86%        | 30,330,266                           | 5.99%        | 30,225,827                           | 6.03%        |
| 2020  | 14,798,654                                     | 2.80%        | 32,562,271                           | 6.16%        | 32,501,119                           | 6.21%        |
| 2021  | 166,513,422                                    | 31.16%       | 57,733,602                           | 10.46%       | 56,157,522                           | 10.27%       |
| 2022  | (67,368,382)                                   | (9.72)%      | 45,599,062                           | 7.58%        | 46,356,068                           | 7.79%        |
| 2023  | 50,177,503                                     | 8.12%        | 42,228,697                           | 6.60%        | 41,801,421                           | 6.60%        |
| <b>Most recent five-year average return</b> |  | <b>6.45%</b> |                                      | <b>7.35%</b> |                                      | <b>7.37%</b> |
| <b>Most recent ten-year average return</b>  |  | <b>7.48%</b> |                                      | <b>7.75%</b> |                                      | <b>7.77%</b> |

<sup>1</sup> The rates of return have been calculated on a dollar-weighted basis. It is our understanding that MCERA's investment consultant calculates rates of return on a time-weighted basis, which can produce different results.

## Section 2: Actuarial Valuation Results

Section 2, Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2007 – 2023



## Section 2: Actuarial Valuation Results

### Contributions

Employer contributions for the year ended June 30, 2023, when adjusted for timing, totaled \$31.3 million, compared to the projected amount of \$32.6 million (also adjusted for timing). This resulted in a loss of \$1.3 million for the year.

### Non-Investment Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected),
- salary increases (greater or smaller than projected), and
- COLAs higher or lower than anticipated.

The net loss from this other experience for the year ended June 30, 2023 amounted to \$7.4 million, which is 0.8% of the Actuarial Accrued Liability. This loss was mainly due to higher than expected individual salary increases for actives and higher than expected COLA increases for retirees and beneficiaries, offset by other gains. See Subsection E for a detailed development of the Unfunded Actuarial Accrued Liability.

## Section 2: Actuarial Valuation Results

### D. Other Changes in the Actuarial Accrued Liability

#### Actuarial Assumptions

The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board for the June 30, 2023 valuation. The assumption changes resulted in an increase in the Actuarial Accrued Liability of \$19.0 million (or by 2.1%), an increase in the average employer contribution rate of 3.70% of payroll, and an increase in the average member rate of 0.82% of payroll.

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

#### Plan Provisions

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit 2*.

## Section 2: Actuarial Valuation Results

### E. Development of Unfunded Actuarial Accrued Liability

Development for Year Ended June 30, 2023

|          |  |                      |
|----------|--|----------------------|
| <b>1</b> | <b>Unfunded actuarial accrued liability at beginning of year</b>   | <b>\$233,944,876</b> |
| <b>2</b> | Normal cost at middle of year  | 17,540,000           |
| <b>3</b> | Expected employer and member contributions   | (39,859,745)         |
| <b>4</b> | Interest   | <u>15,112,880</u>    |
| <b>5</b> | Expected unfunded actuarial accrued liability at end of year   | \$226,738,011        |
| <b>6</b> | Changes due to:  |                      |
|          | a. Investment return lower than expected (after asset smoothing)   | \$962,847            |
|          | b. Contribution loss due to one-year delay in implementing employer contribution rates in the June 30, 2022 valuation <sup>1</sup> | 1,268,768            |
|          | c. Individual salary increases higher than expected for continuing General, Safety, and Probation active members                   | 9,846,854            |
|          | d. 2023 COLA increases higher than expected <sup>2</sup>   | 2,219,718            |
|          | e. Other experience gains  | (4,649,246)          |
|          | f. Changes in actuarial assumptions  | <u>18,999,052</u>    |
|          | Total changes  | \$28,647,993         |
| <b>7</b> | <b>Unfunded actuarial accrued liability at end of year</b>   | <b>\$255,386,004</b> |

Note: The sum of items 6c through 6e equals the “Net loss from other experience” shown in Section 2, Subsection C.

<sup>1</sup> The increase in employer contribution rate attributable to this loss was included in the employer rate determined in the June 30, 2022 valuation.

<sup>2</sup> The rounded Consumer Price Index (CPI) based on a ratio of the December 2022 CPI to the December 2021 CPI for the West Region was 6.00%, which increased the April 1, 2023 COLA banks for all Legacy members retired on or before April 1, 2023 by 3.00% as of April 1, 2023. These COLA banks can be used in the future to grant COLA increases above MCERA’s cost of living adjustment assumption of 2.75%, which was taken into account in determining the magnitude of this COLA loss.

## Section 2: Actuarial Valuation Results

### F. Recommended Contribution

The recommended contribution is equal to the employer Normal Cost payment and a payment on the Unfunded Actuarial Accrued Liability. As of June 30, 2023, the average recommended employer contribution is 40.26% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered 18-year<sup>1</sup> amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization and each amortization layer is fully funded in 18 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit 1*, because there is a combination of charge and credit amortization layers, the UAAL of the Plan is expected to be fully amortized by 2041, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The contribution requirement as of June 30, 2023 is based on the data previously described, the actuarial assumptions and Plan provisions described in Section 4, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized, assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions.

<sup>1</sup> Changes in Unfunded Actuarial Accrued Liability as a result of gains or losses or as a result of changes in actuarial assumptions or methods for each valuation are amortized over separate 18-year periods. Changes in Unfunded Actuarial Accrued Liability as a result of plan amendments are generally amortized over separate 15-year periods.



## Section 2: Actuarial Valuation Results

### Recommended Contribution (continued)

#### Average Recommended Employer Contribution for Year Ended June 30

|   | 2023                      |                             | 2022                |                             |
|---|---------------------------|-----------------------------|---------------------|-----------------------------|
|   | Amount                    | % of Projected Compensation | Amount              | % of Projected Compensation |
| <b>1</b> Total Normal Cost                                      | \$20,689,000              | 22.80%                      | \$17,540,000        | 20.68%                      |
| <b>2</b> Expected member Normal Cost contributions              | <u>9,550,000</u>          | <u>10.52%</u>               | <u>8,406,000</u>    | <u>9.91%</u>                |
| <b>3</b> Employer Normal Cost: 1 - 2                            | \$11,139,000              | 12.28%                      | \$9,134,000         | 10.77%                      |
| <b>4</b> Actuarial Accrued Liability                            | 926,631,003               |                             | 871,590,734         |                             |
| <b>5</b> Valuation Value of Assets                              | <u>671,244,999</u>        |                             | <u>637,645,858</u>  |                             |
| <b>6</b> Unfunded Actuarial Accrued Liability: 4 - 5            | \$255,386,004             |                             | \$233,944,876       |                             |
| <b>7</b> Payment on Unfunded Actuarial Accrued Liability        | \$25,389,000 <sup>1</sup> | 27.98%                      | \$22,405,000        | 26.41%                      |
| <b>8</b> Total average recommended employer contribution: 3 + 7 | <u>\$36,528,000</u>       | <u>40.26%</u>               | <u>\$31,539,000</u> | <u>37.18%</u>               |
| <b>9</b> Projected compensation                                 | \$90,739,475              |                             | \$84,828,649        |                             |

Note: Contributions are assumed to be paid at the end of each pay period.

<sup>1</sup> Based on the total annual payment in *Section 3, Exhibit I* plus an amount associated with the anticipated contribution rate impact resulting from the 12-month lag between the date of the valuation and the date of the contribution rate implementation.

## Section 2: Actuarial Valuation Results

### Reconciliation of Average Recommended Employer Contribution Rate

The chart below details the changes in the average recommended employer contribution rate from the prior valuation to the current year's valuation.

#### Reconciliation from June 30, 2022 to June 30, 2023

|   | Contribution Rate | Estimated Annual Dollar Amount <sup>1</sup> |
|---|-------------------|---|
| <b>Average Recommended Employer Contribution as of June 30, 2022</b>  | <b>36.92%</b>     | <b>\$33,502,000</b>                         |
| 1 Effect of change in membership demographics   | (0.17)%           | (154,000)                                   |
| 2 Effect of anticipated one-year delay in implementing the lower aggregate employer contribution rate developed in the June 30, 2023 valuation until fiscal year 2024/2025 <sup>2</sup> | (0.02)%           | (18,000)                                    |
| 3 Effect of investment return lower than expected (after asset smoothing)   | 0.08%             | 73,000                                      |
| 4 Effect of individual salary increases higher than expected for continuing General, Safety, and Probation active members   | 0.82%             | 744,000                                     |
| 5 Effect of amortizing prior year's UAAL over a larger than expected projected total payroll  | (0.97)%           | (880,000)                                   |
| 6 Effect of higher than expected COLA increases <sup>3</sup>  | 0.18%             | 163,000                                     |
| 7 Effect of other experience gain   | (0.28)%           | (259,000)                                   |
| 8 Effect of changes in actuarial assumptions  | <u>3.70%</u>      | <u>3,357,000</u>                            |
| Total change  | 3.34%             | \$3,026,000                                 |
| <b>Average Recommended Employer Contribution as of June 30, 2023</b>  | <b>40.26%</b>     | <b>\$36,528,000</b>                         |

<sup>1</sup> Based on June 30, 2023 projected compensation.

<sup>2</sup> Before reflecting the changes in actuarial assumptions.

<sup>3</sup> The rounded Consumer Price Index (CPI) based on a ratio of the December 2022 CPI to the December 2021 CPI for the West Region was 6.00%, which increased the April 1, 2023 COLA banks for all Legacy members retired on or before April 1, 2023 by 3.00% as of April 1, 2023. These COLA banks can be used in the future to grant COLA increases above MCERA's inflation assumption of 2.75%, which was taken into account in determining the magnitude of this COLA loss.

## Section 2: Actuarial Valuation Results

### Reconciliation of Average Recommended Member Contribution Rate

The chart below details the changes in the average recommended member contribution rate from the prior valuation to the current year's valuation.

#### Reconciliation from June 30, 2022 to June 30, 2023

|  | Contribution Rate | Estimated Annual Dollar Amount <sup>1</sup> |
|--|-------------------|---|
| <b>Average Recommended Member Contribution as of June 30, 2022</b> | <b>9.76%</b>      | <b>\$8,855,000</b>                          |
| <b>1</b> Effect of changes in member demographics                  | (0.06)%           | \$(49,000)                                  |
| <b>2</b> Effect of changes in actuarial assumptions                | <u>0.82%</u>      | <u>744,000</u>                              |
| Total changes  | 0.76%             | \$695,000                                   |
| <b>Average Recommended Member Contribution as of June 30, 2023</b> | <b>10.52%</b>     | <b>\$9,550,000</b>                          |

<sup>1</sup> Based on June 30, 2023 projected compensation.

## Section 2: Actuarial Valuation Results

### Recommended Employer Contribution Rate

|  | June 30, 2023 Actuarial Valuation |               |               |  | June 30, 2022 Actuarial Valuation |               |               |  |
|--|-----------------------------------|---------------|---------------|--|-----------------------------------|---------------|---------------|--|
|  | Basic Rate                        | COLA Rate     | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) | Basic Rate                        | COLA Rate     | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) |
| <b>General Tier 1 Members</b>          |                                   |               |               |  |                                   |               |               |  |
| Normal Cost                            | 14.91%                            | 4.86%         | 19.77%        | \$21   | 12.78%                            | 3.84%         | 16.62%        | \$17   |
| UAAL                                   | <u>19.34%</u>                     | <u>4.51%</u>  | <u>23.85%</u> | <u>25</u>  | <u>19.20%</u>                     | <u>4.15%</u>  | <u>23.35%</u> | <u>25</u>  |
| <b>Total Contribution</b>              | <b>34.25%</b>                     | <b>9.37%</b>  | <b>43.62%</b> | <b>\$46</b>  | <b>31.98%</b>                     | <b>7.99%</b>  | <b>39.97%</b> | <b>\$42</b>  |
| <b>General Tier 2 / Tier 3 Members</b> |                                   |               |               |  |                                   |               |               |  |
| Normal Cost                            | 10.46%                            | 3.20%         | 13.66%        | \$3,468  | 8.69%                             | 2.60%         | 11.29%        | \$2,866  |
| UAAL                                   | <u>19.34%</u>                     | <u>4.51%</u>  | <u>23.85%</u> | <u>6,054</u>   | <u>19.20%</u>                     | <u>4.15%</u>  | <u>23.35%</u> | <u>5,928</u>   |
| <b>Total Contribution</b>              | <b>29.80%</b>                     | <b>7.71%</b>  | <b>37.51%</b> | <b>\$9,522</b>   | <b>27.89%</b>                     | <b>6.75%</b>  | <b>34.64%</b> | <b>\$8,794</b>   |
| <b>General Tier 4 Members</b>          |                                   |               |               |  |                                   |               |               |  |
| Normal Cost                            | 9.13%                             | 0.00%         | 9.13%         | \$4,532  | 8.25%                             | 0.00%         | 8.25%         | \$4,095  |
| UAAL                                   | <u>19.34%</u>                     | <u>4.51%</u>  | <u>23.85%</u> | <u>11,838</u>  | <u>19.20%</u>                     | <u>4.15%</u>  | <u>23.35%</u> | <u>11,590</u>  |
| <b>Total Contribution</b>              | <b>28.47%</b>                     | <b>4.51%</b>  | <b>32.98%</b> | <b>\$16,370</b>  | <b>27.45%</b>                     | <b>4.15%</b>  | <b>31.60%</b> | <b>\$15,685</b>  |
| <b>Safety Tier 1 Members</b>           |                                   |               |               |  |                                   |               |               |  |
| Normal Cost                            | Not Calculated <sup>2</sup>       |               |               |  |                                   |               |               |  |
| UAAL                                   |                                   |               |               |  |                                   |               |               |  |
| <b>Total Contribution</b>              |                                   |               |               |  |                                   |               |               |  |
| <b>Safety Tier 2 Members</b>           |                                   |               |               |  |                                   |               |               |  |
| Normal Cost                            | 19.13%                            | 7.78%         | 26.91%        | \$1,721  | 15.41%                            | 6.37%         | 21.78%        | \$1,393  |
| UAAL                                   | <u>44.26%</u>                     | <u>12.75%</u> | <u>57.01%</u> | <u>3,645</u>   | <u>39.12%</u>                     | <u>9.40%</u>  | <u>48.52%</u> | <u>3,102</u>   |
| <b>Total Contribution</b>              | <b>63.39%</b>                     | <b>20.53%</b> | <b>83.92%</b> | <b>\$5,366</b>   | <b>54.53%</b>                     | <b>15.77%</b> | <b>70.30%</b> | <b>\$4,495</b>   |

## Section 2: Actuarial Valuation Results

### Recommended Employer Contribution Rate (continued)

|                                 | June 30, 2023 Actuarial Valuation |               |               |  | June 30, 2022 Actuarial Valuation |              |               |  |
|---------------------------------|-----------------------------------|---------------|---------------|--|-----------------------------------|--------------|---------------|--|
|                                 | Basic Rate                        | COLA Rate     | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) | Basic Rate                        | COLA Rate    | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) |
| <b>Safety Tier 3 Members</b>    |                                   |               |               |  |                                   |              |               |  |
| Normal Cost                     | 13.69%                            | 0.00%         | 13.69%        | \$814  | 12.11%                            | 0.00%        | 12.11%        | \$720  |
| UAAL                            | <u>44.26%</u>                     | <u>12.75%</u> | <u>57.01%</u> | <u>3,389</u>   | <u>39.12%</u>                     | <u>9.40%</u> | <u>48.52%</u> | <u>2,884</u>   |
| <b>Total Contribution</b>       | <b>57.95%</b>                     | <b>12.75%</b> | <b>70.70%</b> | <b>\$4,203</b>   | <b>51.23%</b>                     | <b>9.40%</b> | <b>60.63%</b> | <b>\$3,604</b>   |
| <b>Probation Tier 1 Members</b> |                                   |               |               |  |                                   |              |               |  |
| Normal Cost                     | Not Calculated <sup>2</sup>       |               |               |  |                                   |              |               |  |
| UAAL                            |                                   |               |               |  |                                   |              |               |  |
| <b>Total Contribution</b>       |                                   |               |               |  |                                   |              |               |  |
| <b>Probation Tier 2 Members</b> |                                   |               |               |  |                                   |              |               |  |
| Normal Cost                     | 16.06%                            | 5.51%         | 21.57%        | \$381  | 13.04%                            | 4.46%        | 17.50%        | \$309  |
| UAAL                            | <u>10.97%</u>                     | <u>2.40%</u>  | <u>13.37%</u> | <u>236</u>   | <u>10.26%</u>                     | <u>1.46%</u> | <u>11.72%</u> | <u>207</u>   |
| <b>Total Contribution</b>       | <b>27.03%</b>                     | <b>7.91%</b>  | <b>34.94%</b> | <b>\$617</b>   | <b>23.30%</b>                     | <b>5.92%</b> | <b>29.22%</b> | <b>\$516</b>   |
| <b>Probation Tier 3 Members</b> |                                   |               |               |  |                                   |              |               |  |
| Normal Cost                     | 13.40%                            | 0.00%         | 13.40%        | \$202  | 12.52%                            | 0.00%        | 12.52%        | \$189  |
| UAAL                            | <u>10.97%</u>                     | <u>2.40%</u>  | <u>13.37%</u> | <u>202</u>   | <u>10.26%</u>                     | <u>1.46%</u> | <u>11.72%</u> | <u>177</u>   |
| <b>Total Contribution</b>       | <b>24.37%</b>                     | <b>2.40%</b>  | <b>26.77%</b> | <b>\$404</b>   | <b>22.78%</b>                     | <b>1.46%</b> | <b>24.24%</b> | <b>\$366</b>   |

## Section 2: Actuarial Valuation Results

### Recommended Employer Contribution Rate (continued)

|                             | June 30, 2023 Actuarial Valuation |              |               |  | June 30, 2022 Actuarial Valuation |              |               |  |
|-----------------------------|-----------------------------------|--------------|---------------|--|-----------------------------------|--------------|---------------|--|
|                             | Basic Rate                        | COLA Rate    | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) | Basic Rate                        | COLA Rate    | Total Rate    | Estimated Annual Dollar Amount <sup>1</sup> (in \$000's) |
| <b>All Members Combined</b> |                                   |              |               |  |                                   |              |               |  |
| Normal Cost                 | 10.72%                            | 1.56%        | 12.28%        | \$11,139   | 9.30%                             | 1.27%        | 10.57%        | \$9,589  |
| UAAL                        | <u>22.42%</u>                     | <u>5.56%</u> | <u>27.98%</u> | <u>25,389</u>  | <u>21.59%</u>                     | <u>4.76%</u> | <u>26.35%</u> | <u>23,913</u>  |
| <b>Total Contribution</b>   | <b>33.14%</b>                     | <b>7.12%</b> | <b>40.26%</b> | <b>\$36,528</b>  | <b>30.89%</b>                     | <b>6.03%</b> | <b>36.92%</b> | <b>\$33,502</b>  |

Note: A breakdown of the employer minimum dollar contribution to amortize the UAAL by membership group (General/Safety/Probation) and employer (County of Mendocino/Mendocino County Superior Court/Russian River Cemetery District) is provided on the next page.

<sup>1</sup> Amounts are based on the following June 30, 2023 projected annual compensation:

|                         |                  |
|-------------------------|------------------|
| General Tier 1          | \$104,881        |
| General Tier 2 / Tier 3 | 25,385,536       |
| General Tier 4          | 49,636,221       |
| Safety Tier 1           | 0                |
| Safety Tier 2           | 6,393,637        |
| Safety Tier 3           | 5,945,035        |
| Probation Tier 1        | 0                |
| Probation Tier 2        | 1,764,956        |
| Probation Tier 3        | <u>1,509,209</u> |
| Total                   | \$90,739,475     |

<sup>2</sup> There were no Safety Tier 1 or Probation Tier 1 active members reported for the June 30, 2023 valuation.

## Section 2: Actuarial Valuation Results

### Recommended Minimum Dollar Employer Contribution to Amortize the UAAL

| June 30, 2023<br>Estimated UAAL Annual Amounts <sup>1</sup> (in \$000's) |                 |                |                 |
|--|-----------------|----------------|-----------------|
|  | Basic           | COLA           | Total           |
| <b>General Members</b>   |                 |                |                 |
| County   | \$13,701        | \$3,195        | \$16,896        |
| Courts   | 779             | 182            | 961             |
| Cemetery District  | <u>49</u>       | <u>11</u>      | <u>60</u>       |
| <b>Total</b>   | <b>\$14,529</b> | <b>\$3,388</b> | <b>\$17,917</b> |
| <b>Safety Members</b>  |                 |                |                 |
| County   | <u>\$5,461</u>  | <u>\$1,573</u> | <u>\$7,034</u>  |
| <b>Total</b>   | <b>\$5,461</b>  | <b>\$1,573</b> | <b>\$7,034</b>  |
| <b>Probation Members</b>   |                 |                |                 |
| County   | <u>\$360</u>    | <u>\$78</u>    | <u>\$438</u>    |
| <b>Total</b>   | <b>\$360</b>    | <b>\$78</b>    | <b>\$438</b>    |
| <b>All Members Combined</b>  |                 |                |                 |
| County   | \$19,522        | \$4,846        | \$24,368        |
| Courts   | 779             | 182            | 961             |
| Cemetery District  | <u>49</u>       | <u>11</u>      | <u>60</u>       |
| <b>Total</b>   | <b>\$20,350</b> | <b>\$5,039</b> | <b>\$25,389</b> |

<sup>1</sup> Amounts are based on the following June 30, 2023 projected annual compensation:

|                           |                     |
|---------------------------|---------------------|
| General County            | \$70,845,887        |
| General Courts            | 4,029,343           |
| General Cemetery District | 251,408             |
| Safety County             | 12,338,672          |
| Probation County          | <u>3,274,165</u>    |
| <b>Total</b>              | <b>\$90,739,475</b> |

## Section 2: Actuarial Valuation Results

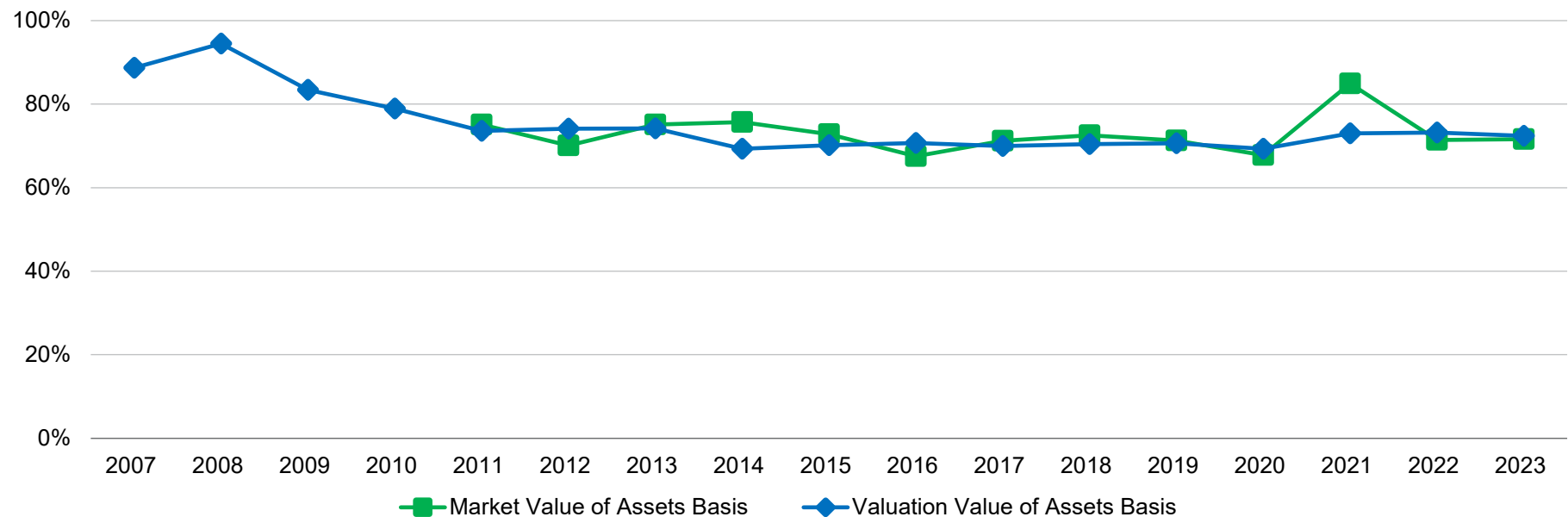
### G. Funded Status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the Market and Valuation Value of Assets to the Actuarial Accrued Liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The chart below depicts a history of the funded ratio for the Plan. The chart on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the Market Value or Valuation Value of Assets is used.

Funded Ratio for Years Ended June 30, 2007 – 2023





## Section 2: Actuarial Valuation Results

### Schedule of Funding Progress for Years Ended June 30, 2014 – 2023

| Actuarial Valuation Date as of June 30 | Valuation Value of Assets <sup>1</sup><br>(a) | Actuarial Accrued Liability (AAL)<br>(b) | Unfunded AAL (UAAL)<br>(b) - (a) | Funded Ratio (%)<br>(a) / (b) | Projected Covered Payroll <sup>2</sup><br>(c) | UAAL as a Percentage of Projected Covered Payroll (%)<br>[(b) - (a)] / (c) |
|--|---|--|----------------------------------|-------------------------------|---|--|
| 2014                                   | \$404,855,842                                 | \$584,428,884                            | \$179,573,042                    | 69.3%                         | \$55,876,248                                  | 321.4%   |
| 2015                                   | 428,228,929                                   | 610,381,849                              | 182,152,920                      | 70.2                          | 58,106,396                                    | 313.5  |
| 2016                                   | 446,773,272                                   | 632,057,539                              | 185,284,267                      | 70.7                          | 61,214,954                                    | 302.7  |
| 2017                                   | 475,224,924                                   | 679,565,362                              | 204,340,438                      | 69.9                          | 62,335,605                                    | 327.8  |
| 2018                                   | 504,803,711                                   | 717,461,993                              | 212,658,282                      | 70.4                          | 67,955,820                                    | 312.9  |
| 2019                                   | 527,367,477                                   | 747,065,374                              | 219,697,897                      | 70.6                          | 71,124,175                                    | 308.9  |
| 2020                                   | 551,332,136                                   | 795,398,180                              | 244,066,044                      | 69.3                          | 75,316,869                                    | 324.1  |
| 2021                                   | 598,428,325                                   | 819,983,481                              | 221,555,156                      | 73.0                          | 80,908,634                                    | 273.8  |
| 2022                                   | 637,645,858                                   | 871,590,734                              | 233,944,876                      | 73.2                          | 84,828,649                                    | 275.8  |
| 2023                                   | 671,244,999                                   | 926,631,003                              | 255,386,004                      | 72.4                          | 90,739,475                                    | 281.4  |

<sup>1</sup> Excludes assets for non-valuation reserves.

<sup>2</sup> Payroll includes a projection for expected salary increases during the year following the valuation date under the actuarial assumptions used in the valuation.

## Section 2: Actuarial Valuation Results

### H. Actuarial Balance Sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the actuarial present value of future benefits of the Plan.

Second, this actuarial present value of future benefits is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

#### Actuarial Balance Sheet for Year Ended June 30, 2023

|   | Basic                | COLA                 | Total                  |
|---|----------------------|----------------------|------------------------|
| Actuarial present value of future benefits                        |                      |                      |                        |
| • Present value of benefits for retired members and beneficiaries | \$346,838,862        | \$269,649,089        | \$616,487,951          |
| • Present value of benefits for inactive vested members           | 26,663,012           | 7,174,141            | 33,837,153             |
| • Present value of benefits for active members                    | <u>325,504,576</u>   | <u>74,233,304</u>    | <u>399,737,880</u>     |
| <b>Total actuarial present value of future benefits</b>           | <b>\$699,006,450</b> | <b>\$351,056,534</b> | <b>\$1,050,062,984</b> |
| Current and future assets   |                      |                      |                        |
| • Total Valuation Value of Assets                                 | \$390,121,797        | \$281,123,202        | \$671,244,999          |
| • Present value of future contributions by members                | 50,499,810           | 5,176,835            | 55,676,645             |
| • Present value of future employer contributions for:             |                      |                      |                        |
| • Entry age normal cost   | 60,544,453           | 7,210,883            | 67,755,336             |
| • Unfunded actuarial accrued liability                            | <u>197,840,390</u>   | <u>57,545,614</u>    | <u>255,386,004</u>     |
| <b>Total of current and future assets</b>                         | <b>\$699,006,450</b> | <b>\$351,056,534</b> | <b>\$1,050,062,984</b> |

## Section 2: Actuarial Valuation Results

### I. Volatility Ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the Market Value of Assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 7.3. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.3% of one-year's payroll. Since actuarial gains and losses are amortized over 18 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions. The current total plan LVR is about 10.2, but is 8.8 for General, 18.3 for Safety, and 12.9 for Probation. This means that assumption changes will have the greatest impact on employer contribution rates for Safety, followed by Probation and then General.

#### Volatility Ratios for Years Ended June 30, 2014 – 2023

| Year Ended<br>June 30 | Asset Volatility Ratio |        |           |       | Liability Volatility Ratio |        |           |       |
|-----------------------|------------------------|--------|-----------|-------|----------------------------|--------|-----------|-------|
|                       | General                | Safety | Probation | Total | General                    | Safety | Probation | Total |
| 2014                  | 7.4                    | 10.6   | 7.9       | 7.9   | 9.7                        | 14.6   | 9.6       | 10.5  |
| 2015                  | 7.1                    | 10.4   | 8.2       | 7.6   | 9.6                        | 15.2   | 10.3      | 10.5  |
| 2016                  | 6.4                    | 9.8    | 7.8       | 7.0   | 9.4                        | 15.4   | 10.5      | 10.3  |
| 2017                  | 7.1                    | 10.9   | 8.4       | 7.8   | 9.9                        | 16.2   | 10.7      | 10.9  |
| 2018                  | 6.9                    | 11.1   | 9.4       | 7.7   | 9.5                        | 16.1   | 11.6      | 10.6  |
| 2019                  | 6.7                    | 10.9   | 10.3      | 7.5   | 9.4                        | 15.6   | 13.0      | 10.5  |
| 2020                  | 6.3                    | 11.0   | 9.3       | 7.2   | 9.4                        | 16.6   | 12.1      | 10.6  |
| 2021                  | 7.5                    | 13.7   | 12.1      | 8.6   | 8.9                        | 16.4   | 11.9      | 10.1  |
| 2022                  | 6.4                    | 12.0   | 9.8       | 7.3   | 9.0                        | 17.3   | 11.2      | 10.3  |
| 2023                  | 6.3                    | 12.5   | 11.7      | 7.3   | 8.8                        | 18.3   | 12.9      | 10.2  |

## Section 2: Actuarial Valuation Results

### J. Risk Assessment

Since the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. Following the completion of the triennial experience study recommending assumptions for the June 30, 2020 valuation, we prepared a stand-alone Risk Assessment report dated July 7, 2020 by using membership and financial information as provided in the actuarial valuation as of June 30, 2019. That report includes various projections (both deterministic and stochastic) of future results under different investment return scenarios together with the assumptions adopted for the June 30, 2020 valuation. Following discussions we had with MCERA, Segal is planning on updating that report after the June 30, 2023 valuation which uses the new assumptions that the Board has approved for this valuation.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures:

#### Risk Assessments

- Asset/Liability Mismatch Risk (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

The most significant asset/liability mismatch risk to the Plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first mismatch is evident in annual valuations: when asset values deviate from assumptions they are typically independent from liability changes. The second mismatch can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but have no impact on asset levels. This risk is also discussed below.

- Investment Risk (the risk that investment returns will be different than expected)

The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the Actuarial Value of Assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection 1, Volatility Ratios*, on page 43, a

## Section 2: Actuarial Valuation Results

1% asset gain or loss (relative to the assumed investment return) translates to about 7.3% of one-year's payroll. Since actuarial gains and losses are amortized over 18 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of -9.72% to a high of 31.16%.

- Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. Effective with the June 30, 2020 valuation, the Board has adopted benefit weighted mortality tables with the generational mortality projections.

- Other Risks

In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for Safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employer has a proven track-record of making the Actuarially Determined Contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

### Evaluation of Historical Trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience.

- Over the past ten years, the funded percentage on the Valuation Value of Assets basis has increased from 69.3% to 72.4%. For a more detailed history see *Section 2, Subsection G, Funded Status* starting on page 40.
- The average geometric investment return on the Valuation Value of Assets over the last 10 years was 7.77%. This includes a high of a 10.27% return and a low of 6.03%. The average over the last 5 years was 7.37%. For more details see the Investment Return table in *Section 2, Subsection B* on page 27.

## Section 2: Actuarial Valuation Results

- The primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption change in 2023 changed the discount rate from 6.75% to 6.50% and updated mortality tables, adding \$19 million in unfunded liability. The assumption change in 2020 changed the discount rate from 7.00% to 6.75% and updated mortality tables, adding \$16 million in unfunded liability. The assumption change in 2017 changed the discount rate from 7.25% to 7.00% and updated mortality tables, adding \$28 million in unfunded liability. For more details on the unfunded liability changes see *Section 3, Exhibit I, Table of Amortization Bases* starting on page 75.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit J, Projection of UAAL Balances and Payments* provided on pages 79 and 80.

### Maturity Measures

In the last 10 years the ratio of members in pay status to active participants has increased from 1.23 to 1.46. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member Data* on page 17.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. For the prior year benefits paid were \$7 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, this plan currently has relatively low levels of negative cash flows. For more details on historical cash flows see the Comparison of Contributions with Benefits in *Section 2, Subsection B, Financial Information* on page 21.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection I, Volatility Ratios* starting on page 43.

### Low-Default-Risk Obligation Measure (LDRM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDRM is required to be calculated using "a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

## Section 2: Actuarial Valuation Results

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in June of the measurement period, by The Bond Buyer, is 3.65% for use effective June 30, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of public pension plan liabilities. The LDROM is not used to determine a plan's funded status or Actuarially Determined Contribution Rate. The plan's expected return on assets, currently 6.50%, is used for these calculations.

As of June 30, 2023, the LDROM for the System is \$1,349 million. The difference between the Association's AAL of \$927 million and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

# Section 3: Supplemental Information

## Exhibit A: Table of Plan Coverage

### Total Plan

| Category                            | Year Ended June 30 |              | Change From Prior Year |
|-------------------------------------|--------------------|--------------|------------------------|
|                                     | 2023               | 2022         |                        |
| <b>Active members in valuation:</b> |                    |              |                        |
| • Number                            | 1,150              | 1,123        | 2.4%                   |
| • Average age                       | 45.3               | 45.7         | -0.4                   |
| • Average years of service          | 8.8                | 8.5          | 0.3                    |
| • Total projected compensation      | \$90,739,475       | \$84,828,649 | 7.0%                   |
| • Average projected compensation    | \$78,904           | \$75,538     | 4.5%                   |
| • Account balances                  | \$62,779,119       | \$60,350,307 | 4.0%                   |
| • Total active vested members       | 653                | 615          | 6.2%                   |
| <b>Inactive vested members:</b>     |                    |              |                        |
| • Number <sup>1</sup>               | 879                | 923          | -4.8%                  |
| • Average Age                       | 48.0               | 48.9         | -0.9                   |
| <b>Retired members:</b>             |                    |              |                        |
| • Number in pay status              | 1,309              | 1,290        | 1.5%                   |
| • Average age                       | 71.3               | 70.8         | 0.5                    |
| • Average monthly benefit           | \$2,268            | \$2,177      | 4.2%                   |
| <b>Disabled members:</b>            |                    |              |                        |
| • Number in pay status              | 172                | 175          | -1.7%                  |
| • Average age                       | 67.5               | 67.3         | 0.2                    |
| • Average monthly benefit           | \$2,836            | \$2,712      | 4.6%                   |
| <b>Beneficiaries:</b>               |                    |              |                        |
| • Number in pay status              | 197                | 185          | 6.5%                   |
| • Average age                       | 74.4               | 73.9         | 0.5                    |
| • Average monthly benefit           | \$1,701            | \$1,532      | 11.0%                  |

<sup>1</sup> Includes inactive members due a refund of member contributions.



## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### General Tier 1

| Category                            | Year Ended June 30 |           | Change From<br>Prior Year |
|-------------------------------------|--------------------|-----------|---------------------------|
|                                     | 2023               | 2022      |                           |
| <b>Active members in valuation:</b> |                    |           |                           |
| • Number                            | 1                  | 1         | 0.0%                      |
| • Average age                       | 68.8               | 67.8      | 1.0                       |
| • Average years of service          | 42.5               | 41.5      | 1.0                       |
| • Total projected compensation      | \$104,881          | \$100,754 | 4.1%                      |
| • Average projected compensation    | \$104,881          | \$100,754 | 4.1%                      |
| • Account balances                  | \$367,778          | \$359,014 | 2.4%                      |
| • Total active vested members       | 1                  | 1         | 0.0%                      |
| <b>Inactive vested members:</b>     |                    |           |                           |
| • Number                            | 2                  | 2         | 0.0%                      |
| • Average Age                       | 56.8               | 55.8      | 1.0                       |
| <b>Retired members:</b>             |                    |           |                           |
| • Number in pay status              | 238                | 248       | -4.0%                     |
| • Average age                       | 78.0               | 77.4      | 0.6                       |
| • Average monthly benefit           | \$3,334            | \$3,221   | 3.5%                      |
| <b>Disabled members:</b>            |                    |           |                           |
| • Number in pay status              | 20                 | 21        | -4.8%                     |
| • Average age                       | 74.3               | 74.4      | -0.1                      |
| • Average monthly benefit           | \$2,339            | \$2,297   | 1.8%                      |
| <b>Beneficiaries:</b>               |                    |           |                           |
| • Number in pay status              | 68                 | 65        | 4.6%                      |
| • Average age                       | 80.1               | 80.1      | 0.0                       |
| • Average monthly benefit           | \$2,099            | \$1,770   | 18.6%                     |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### General Tiers 2 and 3

| Category                            | Year Ended June 30 |              | Change From<br>Prior Year |
|-------------------------------------|--------------------|--------------|---------------------------|
|                                     | 2023               | 2022         |                           |
| <b>Active members in valuation:</b> |                    |              |                           |
| • Number                            | 273                | 298          | -8.4%                     |
| • Average age                       | 53.6               | 53.3         | 0.3                       |
| • Average years of service          | 19.4               | 17.6         | 1.8                       |
| • Total projected compensation      | \$25,385,536       | \$25,455,762 | -0.3%                     |
| • Average projected compensation    | \$92,987           | \$85,422     | 8.9%                      |
| • Account balances                  | \$34,526,322       | \$34,722,859 | -0.6%                     |
| • Total active vested members       | 272                | 286          | -4.9%                     |
| <b>Inactive vested members:</b>     |                    |              |                           |
| • Number                            | 374                | 448          | -16.5%                    |
| • Average Age                       | 54.8               | 55.2         | -0.4                      |
| <b>Retired members:</b>             |                    |              |                           |
| • Number in pay status              | 878                | 864          | 1.6%                      |
| • Average age                       | 70.4               | 69.8         | 0.6                       |
| • Average monthly benefit           | \$1,760            | \$1,663      | 5.8%                      |
| <b>Disabled members:</b>            |                    |              |                           |
| • Number in pay status              | 82                 | 86           | -4.7%                     |
| • Average age                       | 66.6               | 66.4         | 0.2                       |
| • Average monthly benefit           | \$2,036            | \$1,943      | 4.8%                      |
| <b>Beneficiaries:</b>               |                    |              |                           |
| • Number in pay status              | 88                 | 79           | 11.4%                     |
| • Average age                       | 71.8               | 70.7         | 1.1                       |
| • Average monthly benefit           | \$1,241            | \$1,098      | 13.0%                     |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### General Tier 4

| Category                            | Year Ended June 30 |              | Change From<br>Prior Year |
|-------------------------------------|--------------------|--------------|---------------------------|
|                                     | 2023               | 2022         |                           |
| <b>Active members in valuation:</b> |                    |              |                           |
| • Number                            | 718                | 660          | 8.8%                      |
| • Average age                       | 43.3               | 43.5         | -0.2                      |
| • Average years of service          | 4.2                | 3.8          | 0.4                       |
| • Total projected compensation      | \$49,636,221       | \$43,655,550 | 13.7%                     |
| • Average projected compensation    | \$69,131           | \$66,145     | 4.5%                      |
| • Account balances                  | \$13,952,653       | \$11,370,639 | 22.7%                     |
| • Total active vested members       | 280                | 224          | 25.0%                     |
| <b>Inactive vested members:</b>     |                    |              |                           |
| • Number                            | 378                | 364          | 3.8%                      |
| • Average Age                       | 43.8               | 43.5         | 0.3                       |
| <b>Retired members:</b>             |                    |              |                           |
| • Number in pay status              | 31                 | 22           | 40.9%                     |
| • Average age                       | 66.4               | 67.2         | -0.8                      |
| • Average monthly benefit           | \$617              | \$595        | 3.7%                      |
| <b>Disabled members:</b>            |                    |              |                           |
| • Number in pay status              | 1                  | 1            | 0.0%                      |
| • Average age                       | 55.3               | 54.3         | 1.0                       |
| • Average monthly benefit           | \$896              | \$896        | 0.0%                      |
| <b>Beneficiaries:</b>               |                    |              |                           |
| • Number in pay status              | 1                  | 0            | N/A                       |
| • Average age                       | 77.8               | N/A          | N/A                       |
| • Average monthly benefit           | \$454              | N/A          | N/A                       |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### Safety Tiers 1 and 2

| Category                            | Year Ended June 30 |             | Change From<br>Prior Year |
|-------------------------------------|--------------------|-------------|---------------------------|
|                                     | 2023               | 2022        |                           |
| <b>Active members in valuation:</b> |                    |             |                           |
| • Number                            | 47                 | 53          | -11.3%                    |
| • Average age                       | 49.7               | 48.9        | 0.8                       |
| • Average years of service          | 22.3               | 20.5        | 1.8                       |
| • Total projected compensation      | \$6,393,637        | \$6,643,120 | -3.8%                     |
| • Average projected compensation    | \$136,035          | \$125,342   | 8.5%                      |
| • Account balances                  | \$7,694,495        | \$7,825,516 | -1.7%                     |
| • Total active vested members       | 47                 | 50          | -6.0%                     |
| <b>Inactive vested members:</b>     |                    |             |                           |
| • Number                            | 43                 | 45          | -4.4%                     |
| • Average Age                       | 46.7               | 46.8        | -0.1                      |
| <b>Retired members:</b>             |                    |             |                           |
| • Number in pay status              | 119                | 114         | 4.4%                      |
| • Average age                       | 66.9               | 66.2        | 0.7                       |
| • Average monthly benefit           | \$4,060            | \$3,825     | 6.1%                      |
| <b>Disabled members:</b>            |                    |             |                           |
| • Number in pay status              | 64                 | 62          | 3.2%                      |
| • Average age                       | 67.3               | 67.0        | 0.3                       |
| • Average monthly benefit           | \$4,080            | \$3,979     | 2.5%                      |
| <b>Beneficiaries:</b>               |                    |             |                           |
| • Number in pay status              | 35                 | 36          | -2.8%                     |
| • Average age                       | 69.9               | 70.1        | -0.2                      |
| • Average monthly benefit           | \$2,081            | \$2,003     | 3.9%                      |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### Safety Tier 3

| Category                            | Year Ended June 30 |             | Change From<br>Prior Year |
|-------------------------------------|--------------------|-------------|---------------------------|
|                                     | 2023               | 2022        |                           |
| <b>Active members in valuation:</b> |                    |             |                           |
| • Number                            | 71                 | 64          | 10.9%                     |
| • Average age                       | 32.6               | 33.6        | -1.0                      |
| • Average years of service          | 4.3                | 4.2         | 0.1                       |
| • Total projected compensation      | \$5,945,035        | \$5,352,051 | 11.1%                     |
| • Average projected compensation    | \$83,733           | \$83,626    | 0.1%                      |
| • Account balances                  | \$2,349,016        | \$2,177,951 | 7.9%                      |
| • Total active vested members       | 28                 | 25          | 12.0%                     |
| <b>Inactive vested members:</b>     |                    |             |                           |
| • Number                            | 41                 | 33          | 24.2%                     |
| • Average Age                       | 34.3               | 33.7        | 0.6                       |
| <b>Retired members:</b>             |                    |             |                           |
| • Number in pay status              | 2                  | 1           | 100.0%                    |
| • Average age                       | 58.3               | 58.7        | -0.4                      |
| • Average monthly benefit           | \$942              | \$888       | 6.1%                      |
| <b>Disabled members:</b>            |                    |             |                           |
| • Number in pay status              | 1                  | 1           | 0.0%                      |
| • Average age                       | 41.2               | 40.2        | 1.0                       |
| • Average monthly benefit           | \$2,566            | \$2,566     | 0.0%                      |
| <b>Beneficiaries:</b>               |                    |             |                           |
| • Number in pay status              | 0                  | 0           | N/A                       |
| • Average age                       | N/A                | N/A         | N/A                       |
| • Average monthly benefit           | N/A                | N/A         | N/A                       |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### Probation Tiers 1 and 2

| Category                            | Year Ended June 30 |             | Change From<br>Prior Year |
|-------------------------------------|--------------------|-------------|---------------------------|
|                                     | 2023               | 2022        |                           |
| <b>Active members in valuation:</b> |                    |             |                           |
| • Number                            | 17                 | 20          | -15.0%                    |
| • Average age                       | 50.2               | 48.4        | 1.8                       |
| • Average years of service          | 20.6               | 17.3        | 3.3                       |
| • Total projected compensation      | \$1,764,956        | \$1,868,868 | -5.6%                     |
| • Average projected compensation    | \$103,821          | \$93,443    | 11.1%                     |
| • Account balances                  | \$3,275,965        | \$3,240,436 | 1.1%                      |
| • Total active vested members       | 17                 | 20          | -15.0%                    |
| <b>Inactive vested members:</b>     |                    |             |                           |
| • Number                            | 17                 | 14          | 21.4%                     |
| • Average Age                       | 44.2               | 45.0        | -0.8                      |
| <b>Retired members:</b>             |                    |             |                           |
| • Number in pay status              | 41                 | 41          | 0.0%                      |
| • Average age                       | 68.2               | 67.2        | 1.0                       |
| • Average monthly benefit           | \$3,066            | \$2,976     | 3.0%                      |
| <b>Disabled members:</b>            |                    |             |                           |
| • Number in pay status              | 4                  | 4           | 0.0%                      |
| • Average age                       | 64.4               | 63.4        | 1.0                       |
| • Average monthly benefit           | \$2,365            | \$2,297     | 3.0%                      |
| <b>Beneficiaries:</b>               |                    |             |                           |
| • Number in pay status              | 5                  | 5           | 0.0%                      |
| • Average age                       | 74.6               | 73.6        | 1.0                       |
| • Average monthly benefit           | \$1,972            | \$1,915     | 3.0%                      |

## Section 3: Supplemental Information

### Exhibit A: Table of Plan Coverage (continued)

#### Probation Tier 3

| Category                            | Year Ended June 30 |             | Change From<br>Prior Year |
|-------------------------------------|--------------------|-------------|---------------------------|
|                                     | 2023               | 2022        |                           |
| <b>Active members in valuation:</b> |                    |             |                           |
| • Number                            | 23                 | 27          | -14.8%                    |
| • Average age                       | 32.1               | 34.0        | -1.9                      |
| • Average years of service          | 4.1                | 3.7         | 0.4                       |
| • Total projected compensation      | \$1,509,209        | \$1,752,544 | -13.9%                    |
| • Average projected compensation    | \$65,618           | \$64,909    | 1.1%                      |
| • Account balances                  | \$612,890          | \$653,892   | -6.3%                     |
| • Total active vested members       | 8                  | 9           | -11.1%                    |
| <b>Inactive vested members:</b>     |                    |             |                           |
| • Number                            | 24                 | 17          | 41.2%                     |
| • Average Age                       | 36.4               | 36.2        | 0.2                       |
| <b>Retired members:</b>             |                    |             |                           |
| • Number in pay status              | 0                  | 0           | N/A                       |
| • Average age                       | N/A                | N/A         | N/A                       |
| • Average monthly benefit           | N/A                | N/A         | N/A                       |
| <b>Disabled members:</b>            |                    |             |                           |
| • Number in pay status              | 0                  | 0           | N/A                       |
| • Average age                       | N/A                | N/A         | N/A                       |
| • Average monthly benefit           | N/A                | N/A         | N/A                       |
| <b>Beneficiaries:</b>               |                    |             |                           |
| • Number in pay status              | 0                  | 0           | N/A                       |
| • Average age                       | N/A                | N/A         | N/A                       |
| • Average monthly benefit           | N/A                | N/A         | N/A                       |

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation

#### Total Plan

| Age          | Years of Service <sup>1</sup> |                 |                 |                 |                 |                  |                  |                  |                  |                  |
|--------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|
|              | Total                         | 0 – 4           | 5 – 9           | 10 – 14         | 15 – 19         | 20 – 24          | 25 – 29          | 30 – 34          | 35 – 39          | 40 & over        |
| Under 25     | 47                            | 46              | 1               | —               | —               | —                | —                | —                | —                | —                |
|              | \$54,401                      | \$53,935        | \$75,852        | —               | —               | —                | —                | —                | —                | —                |
| 25 – 29      | 106                           | 88              | 17              | 1               | —               | —                | —                | —                | —                | —                |
|              | 63,731                        | 61,701          | 74,724          | \$55,499        | —               | —                | —                | —                | —                | —                |
| 30 – 34      | 137                           | 90              | 45              | 2               | —               | —                | —                | —                | —                | —                |
|              | 68,554                        | 64,860          | 75,504          | 78,412          | —               | —                | —                | —                | —                | —                |
| 35 – 39      | 151                           | 81              | 44              | 14              | 12              | —                | —                | —                | —                | —                |
|              | 76,832                        | 69,384          | 80,202          | 87,645          | \$102,138       | —                | —                | —                | —                | —                |
| 40 – 44      | 133                           | 55              | 41              | 10              | 20              | 6                | 1                | —                | —                | —                |
|              | 81,492                        | 68,591          | 80,521          | 89,409          | 108,767         | \$99,750         | \$96,727         | —                | —                | —                |
| 45 – 49      | 122                           | 37              | 32              | 9               | 16              | 22               | 6                | —                | —                | —                |
|              | 89,465                        | 65,976          | 77,909          | 89,860          | 115,496         | 110,926          | 147,241          | —                | —                | —                |
| 50 – 54      | 157                           | 51              | 34              | 11              | 18              | 26               | 12               | 5                | —                | —                |
|              | 83,647                        | 69,813          | 74,865          | 92,757          | 92,892          | 98,509           | 93,237           | \$130,846        | —                | —                |
| 55 – 59      | 147                           | 39              | 35              | 13              | 19              | 19               | 14               | 6                | 2                | —                |
|              | 85,567                        | 67,328          | 83,863          | 87,353          | 88,114          | 92,851           | 108,316          | 117,461          | \$111,080        | —                |
| 60 – 64      | 93                            | 24              | 32              | 7               | 10              | 11               | 8                | —                | 1                | —                |
|              | 81,978                        | 69,592          | 76,053          | 86,782          | 73,935          | 113,477          | 98,332           | —                | 138,359          | —                |
| 65 – 69      | 44                            | 10              | 7               | 6               | 10              | 5                | 1                | 1                | 3                | 1                |
|              | 94,099                        | 97,660          | 78,574          | 115,433         | 83,153          | 107,344          | 82,923           | 84,263           | 93,606           | \$104,881        |
| 70 & over    | 13                            | 4               | 4               | —               | 4               | 1                | —                | —                | —                | —                |
|              | 92,711                        | 103,339         | 97,797          | —               | 86,264          | 55,639           | —                | —                | —                | —                |
| <b>Total</b> | <b>1,150</b>                  | <b>525</b>      | <b>292</b>      | <b>73</b>       | <b>109</b>      | <b>90</b>        | <b>42</b>        | <b>12</b>        | <b>6</b>         | <b>1</b>         |
|              | <b>\$78,904</b>               | <b>\$66,339</b> | <b>\$78,502</b> | <b>\$90,386</b> | <b>\$96,432</b> | <b>\$102,276</b> | <b>\$106,786</b> | <b>\$120,272</b> | <b>\$106,889</b> | <b>\$104,881</b> |

<sup>1</sup> Excludes incoming reciprocal service, if any.



## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### General Tier 1

| Age          | Years of Service <sup>1</sup> |          |          |          |          |          |          |          |          |                  |
|--------------|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|------------------|
|              | Total                         | 0 – 4    | 5 – 9    | 10 – 14  | 15 – 19  | 20 – 24  | 25 – 29  | 30 – 34  | 35 – 39  | 40 & over        |
| Under 25     | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 25 – 29      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 30 – 34      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 35 – 39      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 40 – 44      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 45 – 49      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 50 – 54      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 55 – 59      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 60 – 64      | —                             | —        | —        | —        | —        | —        | —        | —        | —        | —                |
| 65 – 69      | 1                             | —        | —        | —        | —        | —        | —        | —        | —        | 1                |
| 70 & over    | \$104,881                     | —        | —        | —        | —        | —        | —        | —        | —        | \$104,881        |
| <b>Total</b> | <b>1</b>                      | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>1</b>         |
|              | <b>\$104,881</b>              | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>\$104,881</b> |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### General Tiers 2 and 3

| Age          | Years of Service <sup>1</sup> |                 |                 |                 |                 |                 |                 |                  |                 |           |
|--------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------|
|              | Total                         | 0 – 4           | 5 – 9           | 10 – 14         | 15 – 19         | 20 – 24         | 25 – 29         | 30 – 34          | 35 – 39         | 40 & over |
| Under 25     | —                             | —               | —               | —               | —               | —               | —               | —                | —               | —         |
| 25 – 29      | —                             | —               | —               | —               | —               | —               | —               | —                | —               | —         |
| 30 – 34      | 2                             | —               | 1               | 1               | —               | —               | —               | —                | —               | —         |
|              | \$62,568                      | —               | \$42,927        | \$82,208        | —               | —               | —               | —                | —               | —         |
| 35 – 39      | 19                            | 2               | 3               | 6               | 8               | —               | —               | —                | —               | —         |
|              | 87,436                        | \$89,419        | 81,656          | 78,607          | \$95,730        | —               | —               | —                | —               | —         |
| 40 – 44      | 30                            | 1               | 1               | 8               | 14              | 5               | 1               | —                | —               | —         |
|              | 98,221                        | 82,256          | 154,658         | 87,460          | 101,122         | \$99,524        | \$96,727        | —                | —               | —         |
| 45 – 49      | 40                            | 2               | 1               | 6               | 14              | 14              | 3               | —                | —               | —         |
|              | 99,336                        | 56,988          | 76,933          | 89,092          | 110,431         | 96,542          | 116,779         | —                | —               | —         |
| 50 – 54      | 54                            | 1               | 2               | 7               | 15              | 18              | 7               | 4                | —               | —         |
|              | 90,321                        | 104,848         | 103,320         | 97,529          | 87,783          | 89,757          | 71,393          | \$112,756        | —               | —         |
| 55 – 59      | 66                            | 2               | 4               | 10              | 18              | 16              | 10              | 5                | 1               | —         |
|              | 89,957                        | 88,083          | 88,326          | 88,045          | 85,831          | 87,904          | 98,882          | 105,119          | \$61,433        | —         |
| 60 – 64      | 34                            | —               | 3               | 4               | 9               | 9               | 8               | —                | 1               | —         |
|              | 94,539                        | —               | 83,389          | 78,461          | 72,855          | 118,845         | 98,332          | —                | 138,359         | —         |
| 65 – 69      | 23                            | —               | 1               | 3               | 10              | 5               | 1               | 1                | 2               | —         |
|              | 97,806                        | —               | 88,461          | 155,256         | 83,153          | 107,344         | 82,923          | 84,263           | 79,936          | —         |
| 70 & over    | 5                             | —               | —               | —               | 4               | 1               | —               | —                | —               | —         |
|              | 80,139                        | —               | —               | —               | 86,264          | 55,639          | —               | —                | —               | —         |
| <b>Total</b> | <b>273</b>                    | <b>8</b>        | <b>16</b>       | <b>45</b>       | <b>92</b>       | <b>68</b>       | <b>30</b>       | <b>10</b>        | <b>4</b>        | <b>—</b>  |
|              | <b>\$92,987</b>               | <b>\$82,010</b> | <b>\$88,628</b> | <b>\$91,797</b> | <b>\$91,539</b> | <b>\$96,077</b> | <b>\$93,507</b> | <b>\$106,088</b> | <b>\$89,916</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### General Tier 4

| Age          | Years of Service <sup>1</sup> |                 |                 |                 |          |          |          |          |          |           |
|--------------|-------------------------------|-----------------|-----------------|-----------------|----------|----------|----------|----------|----------|-----------|
|              | Total                         | 0 – 4           | 5 – 9           | 10 – 14         | 15 – 19  | 20 – 24  | 25 – 29  | 30 – 34  | 35 – 39  | 40 & over |
| Under 25     | 33                            | 32              | 1               | —               | —        | —        | —        | —        | —        | —         |
|              | \$50,193                      | \$49,391        | \$75,852        | —               | —        | —        | —        | —        | —        | —         |
| 25 – 29      | 77                            | 65              | 11              | 1               | —        | —        | —        | —        | —        | —         |
|              | 60,546                        | 60,092          | 63,683          | \$55,499        | —        | —        | —        | —        | —        | —         |
| 30 – 34      | 114                           | 79              | 35              | —               | —        | —        | —        | —        | —        | —         |
|              | 65,895                        | 63,127          | 72,144          | —               | —        | —        | —        | —        | —        | —         |
| 35 – 39      | 106                           | 66              | 37              | 3               | —        | —        | —        | —        | —        | —         |
|              | 69,845                        | 65,426          | 78,108          | 65,140          | —        | —        | —        | —        | —        | —         |
| 40 – 44      | 89                            | 52              | 36              | 1               | —        | —        | —        | —        | —        | —         |
|              | 71,509                        | 67,120          | 77,752          | 75,035          | —        | —        | —        | —        | —        | —         |
| 45 – 49      | 64                            | 34              | 28              | 2               | —        | —        | —        | —        | —        | —         |
|              | 70,807                        | 65,792          | 77,611          | 60,795          | —        | —        | —        | —        | —        | —         |
| 50 – 54      | 85                            | 49              | 32              | 4               | —        | —        | —        | —        | —        | —         |
|              | 70,894                        | 68,360          | 73,086          | 84,406          | —        | —        | —        | —        | —        | —         |
| 55 – 59      | 69                            | 36              | 30              | 3               | —        | —        | —        | —        | —        | —         |
|              | 73,410                        | 64,692          | 82,708          | 85,048          | —        | —        | —        | —        | —        | —         |
| 60 – 64      | 55                            | 24              | 29              | 2               | —        | —        | —        | —        | —        | —         |
|              | 73,238                        | 69,592          | 75,294          | 87,196          | —        | —        | —        | —        | —        | —         |
| 65 – 69      | 18                            | 10              | 6               | 2               | —        | —        | —        | —        | —        | —         |
|              | 87,908                        | 97,660          | 76,927          | 72,091          | —        | —        | —        | —        | —        | —         |
| 70 & over    | 8                             | 4               | 4               | —               | —        | —        | —        | —        | —        | —         |
|              | 100,568                       | 103,339         | 97,797          | —               | —        | —        | —        | —        | —        | —         |
| <b>Total</b> | <b>718</b>                    | <b>451</b>      | <b>249</b>      | <b>18</b>       | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |
|              | <b>\$69,131</b>               | <b>\$64,873</b> | <b>\$76,385</b> | <b>\$75,494</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### Safety Tiers 1 and 2

| Age          | Years of Service <sup>1</sup> |                  |                  |                  |                  |                  |                  |                  |                  |           |
|--------------|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|
|              | Total                         | 0 – 4            | 5 – 9            | 10 – 14          | 15 – 19          | 20 – 24          | 25 – 29          | 30 – 34          | 35 – 39          | 40 & over |
| Under 25     | —                             | —                | —                | —                | —                | —                | —                | —                | —                | —         |
| 25 – 29      | —                             | —                | —                | —                | —                | —                | —                | —                | —                | —         |
| 30 – 34      | 1                             | —                | 1                | —                | —                | —                | —                | —                | —                | —         |
|              | \$116,552                     | —                | \$116,552        | —                | —                | —                | —                | —                | —                | —         |
| 35 – 39      | 5                             | 1                | —                | 2                | 2                | —                | —                | —                | —                | —         |
|              | 132,323                       | \$110,606        | —                | \$135,475        | \$140,029        | —                | —                | —                | —                | —         |
| 40 – 44      | 5                             | —                | —                | 1                | 4                | —                | —                | —                | —                | —         |
|              | 125,344                       | —                | —                | 119,381          | 126,835          | —                | —                | —                | —                | —         |
| 45 – 49      | 11                            | —                | —                | 1                | 1                | 6                | 3                | —                | —                | —         |
|              | 158,007                       | —                | —                | 152,596          | 163,481          | \$148,149        | \$177,702        | —                | —                | —         |
| 50 – 54      | 14                            | —                | —                | —                | 2                | 6                | 5                | 1                | —                | —         |
|              | 125,508                       | —                | —                | —                | 110,318          | 119,030          | 123,819          | \$203,208        | —                | —         |
| 55 – 59      | 10                            | 1                | —                | —                | 1                | 2                | 4                | 1                | 1                | —         |
|              | 137,261                       | 120,731          | —                | —                | 129,224          | 127,572          | 131,904          | 179,173          | \$160,726        | —         |
| 60 – 64      | —                             | —                | —                | —                | —                | —                | —                | —                | —                | —         |
| 65 – 69      | 1                             | —                | —                | —                | —                | —                | —                | —                | 1                | —         |
|              | 120,945                       | —                | —                | —                | —                | —                | —                | —                | 120,945          | —         |
| 70 & over    | —                             | —                | —                | —                | —                | —                | —                | —                | —                | —         |
| <b>Total</b> | <b>47</b>                     | <b>2</b>         | <b>1</b>         | <b>4</b>         | <b>10</b>        | <b>14</b>        | <b>12</b>        | <b>2</b>         | <b>2</b>         | <b>—</b>  |
|              | <b>\$136,035</b>              | <b>\$115,669</b> | <b>\$116,552</b> | <b>\$135,732</b> | <b>\$130,074</b> | <b>\$132,730</b> | <b>\$139,985</b> | <b>\$191,191</b> | <b>\$140,836</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### Safety Tier 3

| Age          | Years of Service <sup>1</sup> |                 |                 |                  |          |          |          |          |          |           |
|--------------|-------------------------------|-----------------|-----------------|------------------|----------|----------|----------|----------|----------|-----------|
|              | Total                         | 0 – 4           | 5 – 9           | 10 – 14          | 15 – 19  | 20 – 24  | 25 – 29  | 30 – 34  | 35 – 39  | 40 & over |
| Under 25     | 11                            | 11              | —               | —                | —        | —        | —        | —        | —        | —         |
|              | \$66,223                      | \$66,223        | —               | —                | —        | —        | —        | —        | —        | —         |
| 25 – 29      | 21                            | 16              | 5               | —                | —        | —        | —        | —        | —        | —         |
|              | 76,090                        | 68,824          | \$99,340        | —                | —        | —        | —        | —        | —        | —         |
| 30 – 34      | 15                            | 8               | 7               | —                | —        | —        | —        | —        | —        | —         |
|              | 86,232                        | 82,342          | 90,678          | —                | —        | —        | —        | —        | —        | —         |
| 35 – 39      | 15                            | 10              | 3               | 2                | —        | —        | —        | —        | —        | —         |
|              | 93,695                        | 86,877          | 109,243         | \$104,462        | —        | —        | —        | —        | —        | —         |
| 40 – 44      | 4                             | 1               | 3               | —                | —        | —        | —        | —        | —        | —         |
|              | 99,006                        | 124,677         | 90,449          | —                | —        | —        | —        | —        | —        | —         |
| 45 – 49      | 2                             | 1               | 1               | —                | —        | —        | —        | —        | —        | —         |
|              | 98,932                        | 90,213          | 107,651         | —                | —        | —        | —        | —        | —        | —         |
| 50 – 54      | 1                             | 1               | —               | —                | —        | —        | —        | —        | —        | —         |
|              | 105,981                       | 105,981         | —               | —                | —        | —        | —        | —        | —        | —         |
| 55 – 59      | 1                             | —               | 1               | —                | —        | —        | —        | —        | —        | —         |
|              | 100,677                       | —               | 100,677         | —                | —        | —        | —        | —        | —        | —         |
| 60 – 64      | 1                             | —               | —               | 1                | —        | —        | —        | —        | —        | —         |
|              | 119,241                       | —               | —               | 119,241          | —        | —        | —        | —        | —        | —         |
| 65 – 69      | —                             | —               | —               | —                | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —                | —        | —        | —        | —        | —        | —         |
| 70 & over    | —                             | —               | —               | —                | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —                | —        | —        | —        | —        | —        | —         |
| <b>Total</b> | <b>71</b>                     | <b>48</b>       | <b>20</b>       | <b>3</b>         | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |
|              | <b>\$83,733</b>               | <b>\$76,625</b> | <b>\$96,942</b> | <b>\$109,388</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### Probation Tiers 1 and 2

| Age          | Total            | Years of Service <sup>1</sup> |          |                 |                  |                  |          |          |          |           |
|--------------|------------------|-------------------------------|----------|-----------------|------------------|------------------|----------|----------|----------|-----------|
|              |                  | 0 – 4                         | 5 – 9    | 10 – 14         | 15 – 19          | 20 – 24          | 25 – 29  | 30 – 34  | 35 – 39  | 40 & over |
| Under 25     | —                | —                             | —        | —               | —                | —                | —        | —        | —        | —         |
| 25 – 29      | —                | —                             | —        | —               | —                | —                | —        | —        | —        | —         |
| 30 – 34      | —                | —                             | —        | —               | —                | —                | —        | —        | —        | —         |
| 35 – 39      | 3                | —                             | —        | 1               | 2                | —                | —        | —        | —        | —         |
|              | \$86,618         | —                             | —        | \$80,101        | \$89,877         | —                | —        | —        | —        | —         |
| 40 – 44      | 3                | —                             | —        | —               | 2                | 1                | —        | —        | —        | —         |
|              | 117,728          | —                             | —        | —               | 126,152          | \$100,879        | —        | —        | —        | —         |
| 45 – 49      | 3                | —                             | —        | —               | 1                | 2                | —        | —        | —        | —         |
|              | 112,770          | —                             | —        | —               | 138,415          | 99,948           | —        | —        | —        | —         |
| 50 – 54      | 3                | —                             | —        | —               | 1                | 2                | —        | —        | —        | —         |
|              | 122,036          | —                             | —        | —               | 134,681          | 115,714          | —        | —        | —        | —         |
| 55 – 59      | 1                | —                             | —        | —               | —                | 1                | —        | —        | —        | —         |
|              | 102,559          | —                             | —        | —               | —                | 102,559          | —        | —        | —        | —         |
| 60 – 64      | 3                | —                             | —        | —               | 1                | 2                | —        | —        | —        | —         |
|              | 87,433           | —                             | —        | —               | 83,653           | 89,323           | —        | —        | —        | —         |
| 65 – 69      | 1                | —                             | —        | 1               | —                | —                | —        | —        | —        | —         |
|              | 82,643           | —                             | —        | 82,643          | —                | —                | —        | —        | —        | —         |
| 70 & over    | —                | —                             | —        | —               | —                | —                | —        | —        | —        | —         |
| <b>Total</b> | <b>17</b>        | <b>—</b>                      | <b>—</b> | <b>2</b>        | <b>7</b>         | <b>8</b>         | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |
|              | <b>\$103,821</b> | <b>—</b>                      | <b>—</b> | <b>\$81,372</b> | <b>\$112,687</b> | <b>\$101,676</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

#### Probation Tier 3

| Age          | Years of Service <sup>1</sup> |                 |                 |                 |          |          |          |          |          |           |
|--------------|-------------------------------|-----------------|-----------------|-----------------|----------|----------|----------|----------|----------|-----------|
|              | Total                         | 0 – 4           | 5 – 9           | 10 – 14         | 15 – 19  | 20 – 24  | 25 – 29  | 30 – 34  | 35 – 39  | 40 & over |
| Under 25     | 3                             | 3               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | \$57,346                      | \$57,346        | —               | —               | —        | —        | —        | —        | —        | —         |
| 25 – 29      | 8                             | 7               | 1               | —               | —        | —        | —        | —        | —        | —         |
|              | 61,944                        | 60,350          | \$73,098        | —               | —        | —        | —        | —        | —        | —         |
| 30 – 34      | 5                             | 3               | 1               | 1               | —        | —        | —        | —        | —        | —         |
|              | 68,930                        | 63,879          | 78,399          | \$74,615        | —        | —        | —        | —        | —        | —         |
| 35 – 39      | 3                             | 2               | 1               | —               | —        | —        | —        | —        | —        | —         |
|              | 69,985                        | 71,872          | 66,212          | —               | —        | —        | —        | —        | —        | —         |
| 40 – 44      | 2                             | 1               | 1               | —               | —        | —        | —        | —        | —        | —         |
|              | 75,800                        | 75,324          | 76,275          | —               | —        | —        | —        | —        | —        | —         |
| 45 – 49      | 2                             | —               | 2               | —               | —        | —        | —        | —        | —        | —         |
|              | 67,707                        | —               | 67,707          | —               | —        | —        | —        | —        | —        | —         |
| 50 – 54      | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
| 55 – 59      | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
| 60 – 64      | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
| 65 – 69      | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
| 70 & over    | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
|              | —                             | —               | —               | —               | —        | —        | —        | —        | —        | —         |
| <b>Total</b> | <b>23</b>                     | <b>16</b>       | <b>6</b>        | <b>1</b>        | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |
|              | <b>\$65,618</b>               | <b>\$62,825</b> | <b>\$71,566</b> | <b>\$74,615</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>  |

<sup>1</sup> Excludes incoming reciprocal service, if any.

## Section 3: Supplemental Information

### Exhibit C: Schedule of Average Benefit Payment Amounts

|  | Number of Years Since Retirement <sup>1</sup> |         |         |         |         |         |           |
|--|---|---------|---------|---------|---------|---------|-----------|
|  | 0 - 4   | 5 - 9   | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 & Over |
| <b>Valuation date: 6/30/2014</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$1,928                                       | \$1,916 | \$1,433 | \$1,575 | \$1,668 | \$1,517 | \$1,481   |
| Number of retirees                       | 411   | 318     | 155     | 112     | 90      | 50      | 48        |
| Average monthly benefit of beneficiaries | \$1,265                                       | \$1,228 | \$1,064 | \$954   | \$1,786 | \$1,300 | \$699     |
| Number of beneficiaries                  | 41  | 39      | 22      | 19      | 8       | 9       | 6         |
| <b>Valuation date: 6/30/2015</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$1,986                                       | \$2,006 | \$1,587 | \$1,570 | \$1,753 | \$1,457 | \$1,610   |
| Number of retirees                       | 391   | 329     | 200     | 110     | 94      | 51      | 52        |
| Average monthly benefit of beneficiaries | \$1,308                                       | \$1,208 | \$1,184 | \$961   | \$1,654 | \$1,226 | \$1,091   |
| Number of beneficiaries                  | 46  | 40      | 23      | 16      | 12      | 8       | 7         |
| <b>Valuation date: 6/30/2016</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$1,987                                       | \$2,057 | \$1,831 | \$1,596 | \$1,553 | \$1,742 | \$1,711   |
| Number of retirees                       | 388   | 337     | 222     | 118     | 92      | 53      | 52        |
| Average monthly benefit of beneficiaries | \$1,484                                       | \$1,181 | \$1,134 | \$843   | \$1,484 | \$1,576 | \$1,136   |
| Number of beneficiaries                  | 50  | 41      | 23      | 14      | 11      | 8       | 7         |
| <b>Valuation date: 6/30/2017</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$1,986                                       | \$2,057 | \$1,942 | \$1,603 | \$1,468 | \$1,787 | \$1,670   |
| Number of retirees                       | 368   | 366     | 256     | 117     | 81      | 61      | 60        |
| Average monthly benefit of beneficiaries | \$1,461                                       | \$1,300 | \$1,236 | \$917   | \$1,381 | \$1,534 | \$1,280   |
| Number of beneficiaries                  | 46  | 39      | 28      | 13      | 12      | 7       | 8         |



## Section 3: Supplemental Information

### Exhibit C: Schedule of Average Benefit Payment Amounts (continued)

|  | Number of Years Since Retirement <sup>1</sup> |         |         |         |         |         |           |
|--|---|---------|---------|---------|---------|---------|-----------|
|  | 0 - 4   | 5 - 9   | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 & Over |
| <b>Valuation date: 6/30/2018</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,065                                       | \$2,115 | \$2,111 | \$1,560 | \$1,510 | \$1,866 | \$1,766   |
| Number of retirees                       | 333   | 392     | 284     | 127     | 81      | 62      | 58        |
| Average monthly benefit of beneficiaries | \$1,344                                       | \$1,445 | \$1,330 | \$875   | \$1,342 | \$1,708 | \$1,224   |
| Number of beneficiaries                  | 47  | 38      | 27      | 13      | 14      | 6       | 8         |
| <b>Valuation date: 6/30/2019</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,096                                       | \$2,213 | \$2,172 | \$1,615 | \$1,697 | \$1,826 | \$1,825   |
| Number of retirees                       | 352   | 387     | 298     | 139     | 88      | 74      | 58        |
| Average monthly benefit of beneficiaries | \$1,293                                       | \$1,571 | \$1,381 | \$1,058 | \$1,186 | \$1,978 | \$1,478   |
| Number of beneficiaries                  | 50  | 37      | 29      | 12      | 14      | 6       | 8         |
| <b>Valuation date: 6/30/2020</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,161                                       | \$2,264 | \$2,293 | \$1,810 | \$1,731 | \$1,905 | \$1,759   |
| Number of retirees                       | 333   | 383     | 303     | 182     | 89      | 76      | 61        |
| Average monthly benefit of beneficiaries | \$1,485                                       | \$1,530 | \$1,335 | \$1,263 | \$1,232 | \$1,749 | \$1,524   |
| Number of beneficiaries                  | 52  | 38      | 30      | 12      | 11      | 8       | 9         |
| <b>Valuation date: 6/30/2021</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,162                                       | \$2,233 | \$2,289 | \$2,040 | \$1,720 | \$1,789 | \$1,909   |
| Number of retirees                       | 317   | 382     | 313     | 202     | 98      | 75      | 58        |
| Average monthly benefit of beneficiaries | \$1,325                                       | \$1,683 | \$1,359 | \$1,409 | \$1,086 | \$1,356 | \$1,779   |
| Number of beneficiaries                  | 58  | 42      | 28      | 13      | 10      | 9       | 10        |

## Section 3: Supplemental Information

### Exhibit C: Schedule of Average Benefit Payment Amounts (continued)

|  | Number of Years Since Retirement <sup>1</sup> |         |         |         |         |         |           |
|--|---|---------|---------|---------|---------|---------|-----------|
|  | 0 - 4   | 5 - 9   | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 & Over |
| <b>Valuation date: 6/30/2022</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,438                                       | \$2,246 | \$2,346 | \$2,202 | \$1,805 | \$1,732 | \$1,998   |
| Number of retirees                       | 315   | 357     | 337     | 229     | 100     | 62      | 65        |
| Average monthly benefit of beneficiaries | \$1,505                                       | \$1,636 | \$1,622 | \$1,444 | \$1,154 | \$1,361 | \$1,717   |
| Number of beneficiaries                  | 72  | 38      | 29      | 16      | 11      | 7       | 12        |
| <b>Valuation date: 6/30/2023</b>         |   |         |         |         |         |         |           |
| Average monthly benefit of retirees      | \$2,536                                       | \$2,345 | \$2,418 | \$2,417 | \$1,747 | \$1,835 | \$2,046   |
| Number of retirees                       | 306   | 324     | 357     | 253     | 110     | 67      | 64        |
| Average monthly benefit of beneficiaries | \$1,902                                       | \$1,497 | \$1,871 | \$1,521 | \$1,130 | \$1,262 | \$1,769   |
| Number of beneficiaries                  | 79  | 41      | 28      | 17      | 9       | 11      | 12        |

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit D: Average Annual Benefit of Retired Members and Beneficiaries by Age, Years in Retirement as of June 30, 2023

#### Total Plan

| Age          | Years in Retirement <sup>1</sup> |                 |                 |                 |                 |                 |                 |                 |
|--------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|              | Total                            | 0 - 4           | 5 - 9           | 10 - 14         | 15 - 19         | 20 - 24         | 25 - 29         | 30 & over       |
| Under 45     | 6                                | 3               | 3               | —               | —               | —               | —               | —               |
|              | \$32,104                         | \$44,333        | \$19,875        | —               | —               | —               | —               | —               |
| 45 - 49      | 12                               | 6               | 3               | 1               | 2               | —               | —               | —               |
|              | 28,601                           | 24,086          | 30,310          | \$38,648        | \$34,559        | —               | —               | —               |
| 50 - 54      | 36                               | 24              | 7               | 2               | 2               | 1               | —               | —               |
|              | 18,281                           | 13,574          | 26,883          | 37,144          | 24,364          | \$21,141        | —               | —               |
| 55 - 59      | 96                               | 53              | 38              | 3               | —               | —               | 2               | —               |
|              | 30,751                           | 39,759          | 19,264          | 20,454          | —               | —               | \$25,737        | —               |
| 60 - 64      | 231                              | 84              | 66              | 63              | 8               | 4               | 4               | 2               |
|              | 26,374                           | 31,184          | 27,337          | 19,830          | 22,258          | 24,574          | 24,260          | \$23,040        |
| 65 - 69      | 337                              | 105             | 92              | 79              | 51              | 5               | 3               | 2               |
|              | 26,470                           | 28,342          | 28,658          | 28,248          | 16,430          | 27,226          | 23,988          | 15,210          |
| 70 - 74      | 422                              | 61              | 109             | 116             | 91              | 28              | 12              | 5               |
|              | 28,894                           | 25,257          | 30,027          | 34,777          | 28,478          | 10,547          | 26,801          | 27,433          |
| 75 - 79      | 305                              | 25              | 35              | 85              | 89              | 45              | 15              | 11              |
|              | 27,198                           | 24,308          | 23,325          | 28,276          | 32,763          | 21,752          | 15,172          | 31,403          |
| 80 - 84      | 124                              | 12              | 4               | 25              | 21              | 21              | 22              | 19              |
|              | 27,806                           | 33,496          | 10,901          | 27,991          | 42,106          | 26,914          | 20,470          | 21,206          |
| 85 & over    | 109                              | 12              | 8               | 11              | 6               | 15              | 20              | 37              |
|              | 22,025                           | 21,437          | 25,978          | 17,729          | 20,252          | 22,228          | 21,094          | 23,348          |
| <b>Total</b> | <b>1,678</b>                     | <b>385</b>      | <b>365</b>      | <b>385</b>      | <b>270</b>      | <b>119</b>      | <b>78</b>       | <b>76</b>       |
|              | <b>\$27,113</b>                  | <b>\$28,866</b> | <b>\$26,993</b> | <b>\$28,539</b> | <b>\$28,322</b> | <b>\$20,406</b> | <b>\$21,050</b> | <b>\$24,025</b> |

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit D: Average Annual Benefit of Retired Members and Beneficiaries by Age, Years in Retirement as of June 30, 2023 (continued)

#### General

| Age          | Years in Retirement <sup>1</sup> |                 |                 |                 |                 |                 |                 |                 |
|--------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|              | Total                            | 0 - 4           | 5 - 9           | 10 - 14         | 15 - 19         | 20 - 24         | 25 - 29         | 30 & over       |
| Under 45     | 1                                | —               | 1               | —               | —               | —               | —               | —               |
|              | \$5,017                          | —               | \$5,017         | —               | —               | —               | —               | —               |
| 45 - 49      | 5                                | 4               | 1               | —               | —               | —               | —               | —               |
|              | 18,087                           | \$16,341        | 25,068          | —               | —               | —               | —               | —               |
| 50 - 54      | 21                               | 17              | 2               | 1               | —               | 1               | —               | —               |
|              | 14,955                           | 13,178          | 21,757          | \$25,385        | —               | \$21,141        | —               | —               |
| 55 - 59      | 52                               | 30              | 18              | 3               | —               | —               | 1               | —               |
|              | 17,150                           | 17,525          | 15,692          | 20,454          | —               | —               | \$22,262        | —               |
| 60 - 64      | 188                              | 78              | 50              | 45              | 7               | 3               | 3               | 2               |
|              | 21,184                           | 27,229          | 18,266          | 14,188          | \$18,594        | 21,888          | 21,682          | \$23,040        |
| 65 - 69      | 297                              | 97              | 81              | 67              | 44              | 4               | 2               | 2               |
|              | 23,347                           | 28,264          | 25,159          | 19,574          | 14,854          | 29,442          | 20,608          | 15,210          |
| 70 - 74      | 378                              | 56              | 101             | 110             | 78              | 25              | 6               | 2               |
|              | 27,356                           | 24,854          | 28,906          | 34,955          | 21,891          | 10,000          | 27,654          | 30,423          |
| 75 - 79      | 264                              | 24              | 35              | 80              | 77              | 32              | 12              | 4               |
|              | 24,959                           | 22,706          | 23,325          | 28,312          | 29,859          | 14,124          | 9,578           | 24,215          |
| 80 - 84      | 100                              | 9               | 4               | 25              | 17              | 18              | 16              | 11              |
|              | 26,147                           | 33,661          | 10,901          | 27,991          | 38,552          | 27,834          | 15,700          | 14,617          |
| 85 & over    | 101                              | 12              | 7               | 11              | 4               | 15              | 19              | 33              |
|              | 21,141                           | 21,437          | 25,547          | 17,729          | 17,158          | 22,228          | 19,628          | 22,096          |
| <b>Total</b> | <b>1,407</b>                     | <b>327</b>      | <b>300</b>      | <b>342</b>      | <b>227</b>      | <b>98</b>       | <b>59</b>       | <b>54</b>       |
|              | <b>\$24,092</b>                  | <b>\$25,008</b> | <b>\$24,218</b> | <b>\$26,437</b> | <b>\$24,292</b> | <b>\$17,765</b> | <b>\$17,517</b> | <b>\$20,818</b> |

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit D: Average Annual Benefit of Retired Members and Beneficiaries by Age, Years in Retirement as of June 30, 2023 (continued)

#### Safety

| Age          | Years in Retirement <sup>1</sup> |                 |                 |                 |                 |                 |                 |                 |
|--------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|              | Total                            | 0 - 4           | 5 - 9           | 10 - 14         | 15 - 19         | 20 - 24         | 25 - 29         | 30 & over       |
| Under 45     | 5                                | 3               | 2               | —               | —               | —               | —               | —               |
|              | \$37,522                         | \$44,333        | \$27,304        | —               | —               | —               | —               | —               |
| 45 - 49      | 6                                | 2               | 2               | 1               | 1               | —               | —               | —               |
|              | 36,519                           | 39,576          | 32,931          | \$38,648        | \$35,451        | —               | —               | —               |
| 50 - 54      | 12                               | 4               | 5               | 1               | 2               | —               | —               | —               |
|              | 24,771                           | 13,738          | 28,934          | 48,902          | 24,364          | —               | —               | —               |
| 55 - 59      | 42                               | 23              | 18              | —               | —               | —               | 1               | —               |
|              | 47,995                           | 68,760          | 22,506          | —               | —               | —               | \$29,212        | —               |
| 60 - 64      | 33                               | 5               | 12              | 13              | 1               | 1               | 1               | —               |
|              | 54,909                           | 93,513          | 61,943          | 37,584          | 47,909          | \$32,631        | 31,992          | —               |
| 65 - 69      | 29                               | 5               | 8               | 8               | 6               | 1               | 1               | —               |
|              | 53,025                           | 33,433          | 59,160          | 85,269          | 27,668          | 18,359          | 30,748          | —               |
| 70 - 74      | 29                               | 3               | 5               | 1               | 8               | 3               | 6               | 3               |
|              | 47,184                           | 39,094          | 41,626          | 38,505          | 90,888          | 15,100          | 25,948          | \$25,440        |
| 75 - 79      | 35                               | —               | —               | 4               | 8               | 13              | 3               | 7               |
|              | 38,933                           | —               | —               | 27,705          | 45,471          | 40,527          | 37,548          | 35,510          |
| 80 - 84      | 22                               | 2               | —               | —               | 3               | 3               | 6               | 8               |
|              | 36,020                           | 44,132          | —               | —               | 66,247          | 21,391          | 33,190          | 30,266          |
| 85 & over    | 8                                | —               | 1               | —               | 2               | —               | 1               | 4               |
|              | 33,189                           | —               | 28,998          | —               | 26,438          | —               | 48,939          | 33,676          |
| <b>Total</b> | <b>221</b>                       | <b>47</b>       | <b>53</b>       | <b>28</b>       | <b>31</b>       | <b>21</b>       | <b>19</b>       | <b>22</b>       |
|              | <b>\$44,608</b>                  | <b>\$57,210</b> | <b>\$40,075</b> | <b>\$50,272</b> | <b>\$52,922</b> | <b>\$32,729</b> | <b>\$32,019</b> | <b>\$31,896</b> |

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit D: Average Annual Benefit of Retired Members and Beneficiaries by Age, Years in Retirement as of June 30, 2023 (continued)

#### Probation

| Age          | Years in Retirement <sup>1</sup> |                 |                 |                 |                 |          |          |           |
|--------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|----------|----------|-----------|
|              | Total                            | 0 - 4           | 5 - 9           | 10 - 14         | 15 - 19         | 20 - 24  | 25 - 29  | 30 & over |
| Under 45     | —                                | —               | —               | —               | —               | —        | —        | —         |
| 45 - 49      | 1                                | —               | —               | —               | 1               | —        | —        | —         |
|              | \$33,667                         | —               | —               | —               | \$33,667        | —        | —        | —         |
| 50 - 54      | 3                                | 3               | —               | —               | —               | —        | —        | —         |
|              | 15,600                           | \$15,600        | —               | —               | —               | —        | —        | —         |
| 55 - 59      | 2                                | —               | 2               | —               | —               | —        | —        | —         |
|              | 22,234                           | —               | \$22,234        | —               | —               | —        | —        | —         |
| 60 - 64      | 10                               | 1               | 4               | 5               | —               | —        | —        | —         |
|              | 29,779                           | 27,988          | 36,898          | \$24,441        | —               | —        | —        | —         |
| 65 - 69      | 11                               | 3               | 3               | 4               | 1               | —        | —        | —         |
|              | 40,802                           | 22,358          | 41,808          | 59,503          | 18,312          | —        | —        | —         |
| 70 - 74      | 15                               | 2               | 3               | 5               | 5               | —        | —        | —         |
|              | 32,291                           | 15,799          | 48,432          | 30,121          | 31,374          | —        | —        | —         |
| 75 - 79      | 6                                | 1               | —               | 1               | 4               | —        | —        | —         |
|              | 57,240                           | 62,746          | —               | 27,660          | 63,259          | —        | —        | —         |
| 80 - 84      | 2                                | 1               | —               | —               | 1               | —        | —        | —         |
|              | 20,418                           | 10,735          | —               | —               | 30,102          | —        | —        | —         |
| 85 & over    | —                                | —               | —               | —               | —               | —        | —        | —         |
|              | —                                | —               | —               | —               | —               | —        | —        | —         |
| <b>Total</b> | <b>50</b>                        | <b>11</b>       | <b>12</b>       | <b>15</b>       | <b>12</b>       | <b>—</b> | <b>—</b> | <b>—</b>  |
|              | <b>\$34,804</b>                  | <b>\$22,449</b> | <b>\$38,565</b> | <b>\$35,899</b> | <b>\$40,999</b> | <b>—</b> | <b>—</b> | <b>—</b>  |

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit E: Reconciliation of Member Data

|                                     | Active Members | Inactive Vested Members | Retired Members | Disabled Members | Beneficiaries | Total        |
|-------------------------------------|----------------|-------------------------|-----------------|------------------|---------------|--------------|
| <b>Number as of June 30, 2022</b>   | <b>1,123</b>   | <b>923</b>              | <b>1,290</b>    | <b>175</b>       | <b>185</b>    | <b>3,696</b> |
| • New members                       | 177            | 0                       | 0               | 0                | 21            | 198          |
| • Terminations – with vested rights | -82            | 82                      | 0               | 0                | 0             | 0            |
| • Contribution refunds              | -39            | -113                    | 0               | 0                | 0             | -152         |
| • Retirements                       | -35            | -18                     | 53              | 0                | 0             | 0            |
| • New disabilities                  | -2             | -1                      | -1              | 4                | 0             | 0            |
| • Return to work                    | 11             | -8                      | -3              | 0                | 0             | 0            |
| • Died with or without beneficiary  | -3             | -7                      | -30             | -7               | -8            | -55          |
| • Data adjustments                  | 0              | 21 <sup>1</sup>         | 0               | 0                | -1            | 20           |
| <b>Number as of June 30, 2023</b>   | <b>1,150</b>   | <b>879</b>              | <b>1,309</b>    | <b>172</b>       | <b>197</b>    | <b>3,707</b> |

<sup>1</sup> Includes 20 members who entered (or were late reported) and terminated employment after June 30, 2022.

## Section 3: Supplemental Information

### Exhibit F: Summary Statement of Income and Expenses on a Market Value Basis

|  | Year Ended<br>June 30, 2023  | Year Ended<br>June 30, 2022  |
|--|------------------------------|------------------------------|
| <b>Net assets at market value at the beginning of the year</b> | <b>\$621,934,385</b>         | <b>\$696,441,302</b>         |
| <b>Contribution income:</b>                                    |                              |                              |
| • Employer contributions                                       | \$30,309,355                 | \$30,485,006                 |
| • Member contributions   | <u>8,492,670</u>             | <u>8,185,773</u>             |
| <i>Net contribution income</i>                                 | <i>\$38,802,025</i>          | <i>\$38,670,779</i>          |
| <b>Investment income:</b>                                      |                              |                              |
| • Interest, dividends and other income                         | \$14,448,390                 | \$14,297,098                 |
| • Asset appreciation   | 37,224,908                   | (80,472,109)                 |
| • Less investment expenses                                     | <u>(1,495,795)</u>           | <u>(1,193,371)</u>           |
| <i>Net investment income</i>                                   | <i><u>\$50,177,503</u></i>   | <i><u>\$(67,368,382)</u></i> |
| <b>Total income available for benefits</b>                     | <b>\$88,979,528</b>          | <b>\$(28,697,603)</b>        |
| <b>Less benefit payments:</b>                                  |                              |                              |
| • Benefit payments and refunds                                 | \$(45,454,533)               | \$(44,346,543)               |
| • Administrative expenses                                      | <u>(1,549,772)</u>           | <u>(1,462,771)</u>           |
| <i>Net benefit payments</i>                                    | <i><u>\$(47,004,305)</u></i> | <i><u>\$(45,809,314)</u></i> |
| <b>Change in net assets at market value</b>                    | <b>\$41,975,223</b>          | <b>\$(74,506,917)</b>        |
| <b>Net assets at market value at the end of the year</b>       | <b>\$663,909,608</b>         | <b>\$621,934,385</b>         |

Note: Results may be slightly off due to rounding.



## Section 3: Supplemental Information

### Exhibit G: Summary Statement of Plan Assets

|  | June 30, 2023        | June 30, 2022        |
|--|----------------------|----------------------|
| <i>Cash equivalents</i>                                    | \$677,082            | \$1,614,712          |
| <b>Accounts receivable:</b>                                |                      |                      |
| • Member contributions                                     | \$190,056            | \$121,031            |
| • Employer contributions                                   | 716,757              | 521,591              |
| • Other  | <u>667,439</u>       | <u>499,414</u>       |
| <i>Total accounts receivable</i>                           | \$1,574,252          | \$1,142,036          |
| <b>Investments:</b>  |                      |                      |
| • Fixed income   | \$129,681,011        | \$125,692,476        |
| • Equities   | 400,368,296          | 364,293,692          |
| • Infrastructure, real estate and real estate partnerships | <u>133,115,903</u>   | <u>130,451,382</u>   |
| <i>Total investments at market value</i>                   | \$663,165,210        | \$620,437,550        |
| Equipment  | <u>79,383</u>        | <u>158,766</u>       |
| Total assets   | \$665,495,927        | \$623,353,064        |
| <b>Accounts payable:</b>                                   |                      |                      |
| • Accounts payable   | \$(392,592)          | \$(279,460)          |
| • Accrued expenses and other liabilities                   | <u>(1,193,727)</u>   | <u>(1,139,219)</u>   |
| Total accounts payable                                     | \$(1,586,319)        | \$(1,418,679)        |
| <b>Net assets at market value</b>                          | <b>\$663,909,608</b> | <b>\$621,934,385</b> |
| <b>Net assets at actuarial value</b>                       | <b>\$677,876,651</b> | <b>\$643,850,234</b> |
| <b>Net assets at valuation value</b>                       | <b>\$671,244,999</b> | <b>\$637,645,858</b> |

Note: Results may be slightly off due to rounding.

## Section 3: Supplemental Information

### Exhibit H: Development of the Fund through June 30, 2023

| Year Ended<br>June 30 | Employer<br>Contributions | Member<br>Contributions | Net<br>Investment<br>Return <sup>1</sup> | Benefit<br>Payments | Market<br>Value of<br>Assets at<br>Year-End | Actuarial<br>Value of<br>Assets at<br>Year-End | Actuarial<br>Value as a<br>Percent of<br>Market<br>Value |
|-----------------------|---------------------------|-------------------------|--|---------------------|---|--|--|
| 2014                  | \$14,324,752              | \$4,575,895             | \$67,564,513                             | \$27,353,529        | \$442,308,448                               | \$409,284,122                                  | 92.5%  |
| 2015                  | 15,164,044                | 4,651,960               | 12,142,037                               | 30,049,133          | 444,217,356                                 | 432,679,307                                    | 97.4%  |
| 2016                  | 19,129,191                | 5,544,925               | (11,494,818)                             | 31,058,643          | 426,338,011                                 | 451,044,882                                    | 105.8%   |
| 2017                  | 19,116,426                | 5,753,907               | 65,583,775                               | 32,765,402          | 484,026,717                                 | 480,079,636                                    | 99.2%  |
| 2018                  | 20,430,644                | 5,996,462               | 44,129,810                               | 34,153,672          | 520,429,961                                 | 510,023,422                                    | 98.0%  |
| 2019                  | 23,702,064                | 6,544,192               | 18,725,703                               | 36,674,901          | 532,727,019                                 | 532,691,627                                    | 100.0%   |
| 2020                  | 24,647,132                | 6,820,687               | 13,572,162                               | 38,777,787          | 538,989,213                                 | 556,717,438                                    | 103.3%   |
| 2021                  | 26,333,815                | 7,053,907               | 165,141,008                              | 41,076,641          | 696,441,302                                 | 605,389,707                                    | 86.9%  |
| 2022                  | 30,485,006                | 8,185,773               | (68,831,153)                             | 44,346,543          | 621,934,385                                 | 643,850,234                                    | 103.5%   |
| 2023                  | 30,309,355                | 8,492,670               | 48,627,731                               | 45,454,533          | 663,909,608                                 | 677,876,651                                    | 102.1%   |

<sup>1</sup> On a market value basis, net of investment fees and administrative expenses.

## Section 3: Supplemental Information

### Exhibit I: Table of Amortization Bases

| Type                          | Date Established | Initial Amount | Initial Period | Outstanding Balance  | Years Remaining | Annual Payment      |
|-------------------------------|------------------|----------------|----------------|----------------------|-----------------|---------------------|
| <b>General</b>                |                  |                |                |                      |                 |                     |
| Combined base                 | June 30, 2012    | \$96,509,955   | 27             | \$96,787,958         | 13 <sup>1</sup> | \$9,340,562         |
| Experience loss               | June 30, 2013    | 1,308,206      | 18             | 962,488              | 8               | 139,520             |
| Experience gain               | June 30, 2014    | (10,922,004)   | 18             | (8,548,332)          | 9               | (1,119,137)         |
| Change in assumptions/methods | June 30, 2014    | 41,158,191     | 18             | 32,213,307           | 9               | 4,217,325           |
| Experience gain               | June 30, 2015    | (2,476,999)    | 18             | (2,043,835)          | 10              | (244,660)           |
| Experience loss               | June 30, 2016    | 1,249,423      | 18             | 1,076,082            | 11              | 118,960             |
| Experience gain               | June 30, 2017    | (6,932,729)    | 18             | (6,181,462)          | 12              | (636,286)           |
| Change in assumptions         | June 30, 2017    | 21,071,591     | 18             | 18,788,163           | 12              | 1,933,952           |
| Experience loss               | June 30, 2018    | 5,742,836      | 18             | 5,277,300            | 13              | 509,288             |
| Experience loss               | June 30, 2019    | 8,521,818      | 18             | 8,023,767            | 14              | 730,227             |
| Experience loss               | June 30, 2020    | 8,846,883      | 18             | 8,492,100            | 15              | 732,494             |
| Change in assumptions         | June 30, 2020    | 10,455,368     | 18             | 10,036,081           | 15              | 865,671             |
| Experience gain               | June 30, 2021    | (11,508,189)   | 18             | (11,239,635)         | 16              | (922,879)           |
| Experience loss               | June 30, 2022    | 12,306,002     | 18             | 12,182,109           | 17              | 955,826             |
| Experience loss               | June 30, 2023    | 4,964,608      | 18             | 4,964,608            | 18              | 373,483             |
| Change in assumptions         | June 30, 2023    | 10,951,559     | 18             | <u>10,951,559</u>    | 18              | <u>823,876</u>      |
| <b>Subtotal</b>               |                  |                |                | <b>\$181,742,258</b> |                 | <b>\$17,818,222</b> |

<sup>1</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023).

## Section 3: Supplemental Information

### Exhibit I: Table of Amortization Bases (continued)

| Type                          | Date Established | Initial Amount | Initial Period | Outstanding Balance | Years Remaining | Annual Payment     |
|-------------------------------|------------------|----------------|----------------|---------------------|-----------------|--------------------|
| <b>Safety</b>                 |                  |                |                |                     |                 |                    |
| Combined base                 | June 30, 2012    | \$24,941,466   | 27             | \$25,013,310        | 13 <sup>1</sup> | \$2,413,920        |
| Experience loss               | June 30, 2013    | 2,713,369      | 18             | 1,996,310           | 8               | 289,380            |
| Experience gain               | June 30, 2014    | (489,900)      | 18             | (383,431)           | 9               | (50,198)           |
| Change in assumptions/methods | June 30, 2014    | 13,983,439     | 18             | 10,944,428          | 9               | 1,432,831          |
| Experience loss               | June 30, 2015    | 4,163,162      | 18             | 3,435,132           | 10              | 411,207            |
| Experience loss               | June 30, 2016    | 1,209,820      | 18             | 1,041,972           | 11              | 115,190            |
| Experience gain               | June 30, 2017    | (1,978,056)    | 18             | (1,763,703)         | 12              | (181,546)          |
| Change in assumptions         | June 30, 2017    | 5,932,121      | 18             | 5,289,285           | 12              | 544,450            |
| Experience loss               | June 30, 2018    | 3,402,016      | 18             | 3,126,236           | 13              | 301,699            |
| Experience gain               | June 30, 2019    | (612,075)      | 18             | (576,302)           | 14              | (52,448)           |
| Experience loss               | June 30, 2020    | 2,322,959      | 18             | 2,229,803           | 15              | 192,334            |
| Change in assumptions         | June 30, 2020    | 4,684,408      | 18             | 4,496,551           | 15              | 387,854            |
| Experience gain               | June 30, 2021    | (4,509,695)    | 18             | (4,404,457)         | 16              | (361,647)          |
| Experience loss               | June 30, 2022    | 6,647,794      | 18             | 6,580,866           | 17              | 516,344            |
| Experience loss               | June 30, 2023    | 5,617,136      | 18             | 5,617,136           | 18              | 422,572            |
| Change in assumptions         | June 30, 2023    | 7,337,447      | 18             | <u>7,337,447</u>    | 18              | <u>551,989</u>     |
| <b>Subtotal</b>               |                  |                |                | <b>\$69,980,583</b> |                 | <b>\$6,933,931</b> |

<sup>1</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023).

## Section 3: Supplemental Information

### Exhibit I: Table of Amortization Bases (continued)

| Type                          | Date Established | Initial Amount | Initial Period | Outstanding Balance | Years Remaining | Annual Payment   |
|-------------------------------|------------------|----------------|----------------|---------------------|-----------------|------------------|
| <b>Probation</b>              |                  |                |                |                     |                 |                  |
| Combined base                 | June 30, 2012    | \$5,075,598    | 27             | \$5,090,218         | 13 <sup>1</sup> | \$491,234        |
| Experience gain               | June 30, 2013    | (964,299)      | 18             | (709,465)           | 8               | (102,842)        |
| Experience gain               | June 30, 2014    | (834,449)      | 18             | (653,098)           | 9               | (85,503)         |
| Change in assumptions/methods | June 30, 2014    | 3,045,283      | 18             | 2,383,454           | 9               | 312,039          |
| Experience gain               | June 30, 2015    | (194,174)      | 18             | (160,219)           | 10              | (19,179)         |
| Experience gain               | June 30, 2016    | (39,275)       | 18             | (33,825)            | 11              | (3,739)          |
| Experience gain               | June 30, 2017    | (535,517)      | 18             | (477,486)           | 12              | (49,150)         |
| Change in assumptions         | June 30, 2017    | 1,217,274      | 18             | 1,085,364           | 12              | 111,721          |
| Experience gain               | June 30, 2018    | (50,151)       | 18             | (46,086)            | 13              | (4,448)          |
| Experience loss               | June 30, 2019    | 558,987        | 18             | 526,317             | 14              | 47,899           |
| Experience gain               | June 30, 2020    | (378,068)      | 18             | (362,907)           | 15              | (31,303)         |
| Change in assumptions         | June 30, 2020    | 602,011        | 18             | 577,868             | 15              | 49,845           |
| Experience gain               | June 30, 2021    | (2,783,416)    | 18             | (2,718,462)         | 16              | (223,211)        |
| Experience gain               | June 30, 2022    | (622,015)      | 18             | (615,753)           | 17              | (48,313)         |
| Experience gain               | June 30, 2023    | (932,803)      | 18             | (932,803)           | 18              | (70,174)         |
| Change in assumptions         | June 30, 2023    | 710,046        | 18             | <u>710,046</u>      | 18              | <u>53,416</u>    |
| <b>Subtotal</b>               |                  |                |                | <b>\$3,663,163</b>  |                 | <b>\$428,292</b> |

<sup>1</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023).

## Section 3: Supplemental Information

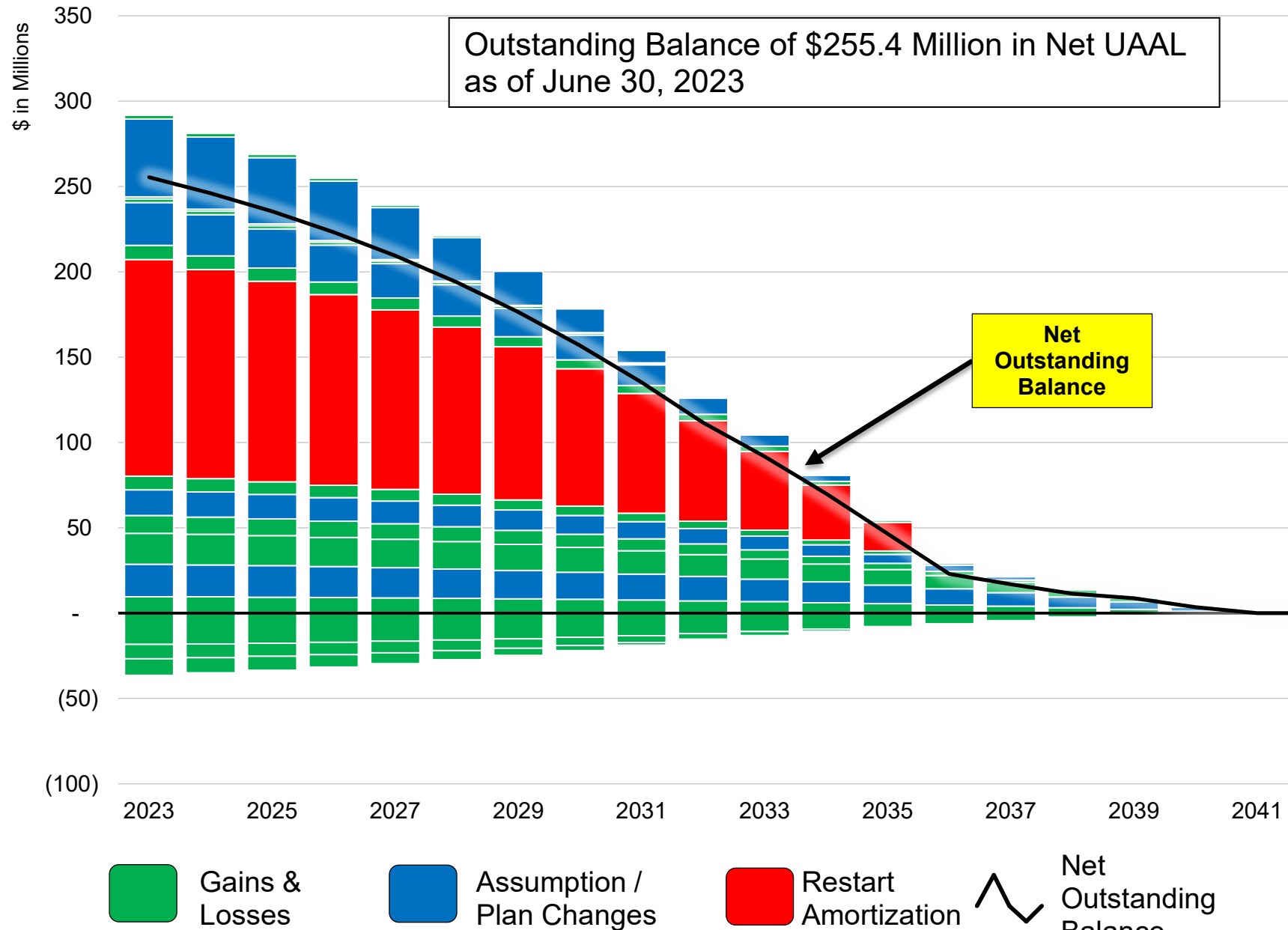
### Exhibit I: Table of Amortization Bases (continued)

| Type                          | Date Established | Initial Amount | Initial Period | Outstanding Balance  | Years Remaining | Annual Payment      |
|-------------------------------|------------------|----------------|----------------|----------------------|-----------------|---------------------|
| <b>Total</b>                  |                  |                |                |                      |                 |                     |
| Combined base                 | June 30, 2012    | \$126,527,019  | 27             | \$126,891,486        | 13 <sup>1</sup> | \$12,245,716        |
| Experience loss               | June 30, 2013    | 3,057,276      | 18             | 2,249,333            | 8               | 326,058             |
| Experience gain               | June 30, 2014    | (12,246,353)   | 18             | (9,584,861)          | 9               | (1,254,838)         |
| Change in assumptions/methods | June 30, 2014    | 58,186,913     | 18             | 45,541,189           | 9               | 5,962,195           |
| Experience loss               | June 30, 2015    | 1,491,989      | 18             | 1,231,078            | 10              | 147,368             |
| Experience loss               | June 30, 2016    | 2,419,968      | 18             | 2,084,229            | 11              | 230,411             |
| Experience gain               | June 30, 2017    | (9,446,302)    | 18             | (8,422,651)          | 12              | (866,982)           |
| Change in assumptions         | June 30, 2017    | 28,220,986     | 18             | 25,162,812           | 12              | 2,590,123           |
| Experience loss               | June 30, 2018    | 9,094,701      | 18             | 8,357,450            | 13              | 806,539             |
| Experience loss               | June 30, 2019    | 8,468,730      | 18             | 7,973,782            | 14              | 725,678             |
| Experience loss               | June 30, 2020    | 10,791,774     | 18             | 10,358,996           | 15              | 893,525             |
| Change in assumptions         | June 30, 2020    | 15,741,787     | 18             | 15,110,500           | 15              | 1,303,370           |
| Experience gain               | June 30, 2021    | (18,801,300)   | 18             | (18,362,554)         | 16              | (1,507,737)         |
| Experience loss               | June 30, 2022    | 18,331,781     | 18             | 18,147,222           | 17              | 1,423,857           |
| Experience loss               | June 30, 2023    | 9,648,941      | 18             | 9,648,941            | 18              | 725,881             |
| Change in assumptions         | June 30, 2023    | 18,999,052     | 18             | <u>18,999,052</u>    | 18              | <u>1,429,281</u>    |
| <b>Total</b>                  |                  |                |                | <b>\$255,386,004</b> |                 | <b>\$25,180,445</b> |

<sup>1</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023).

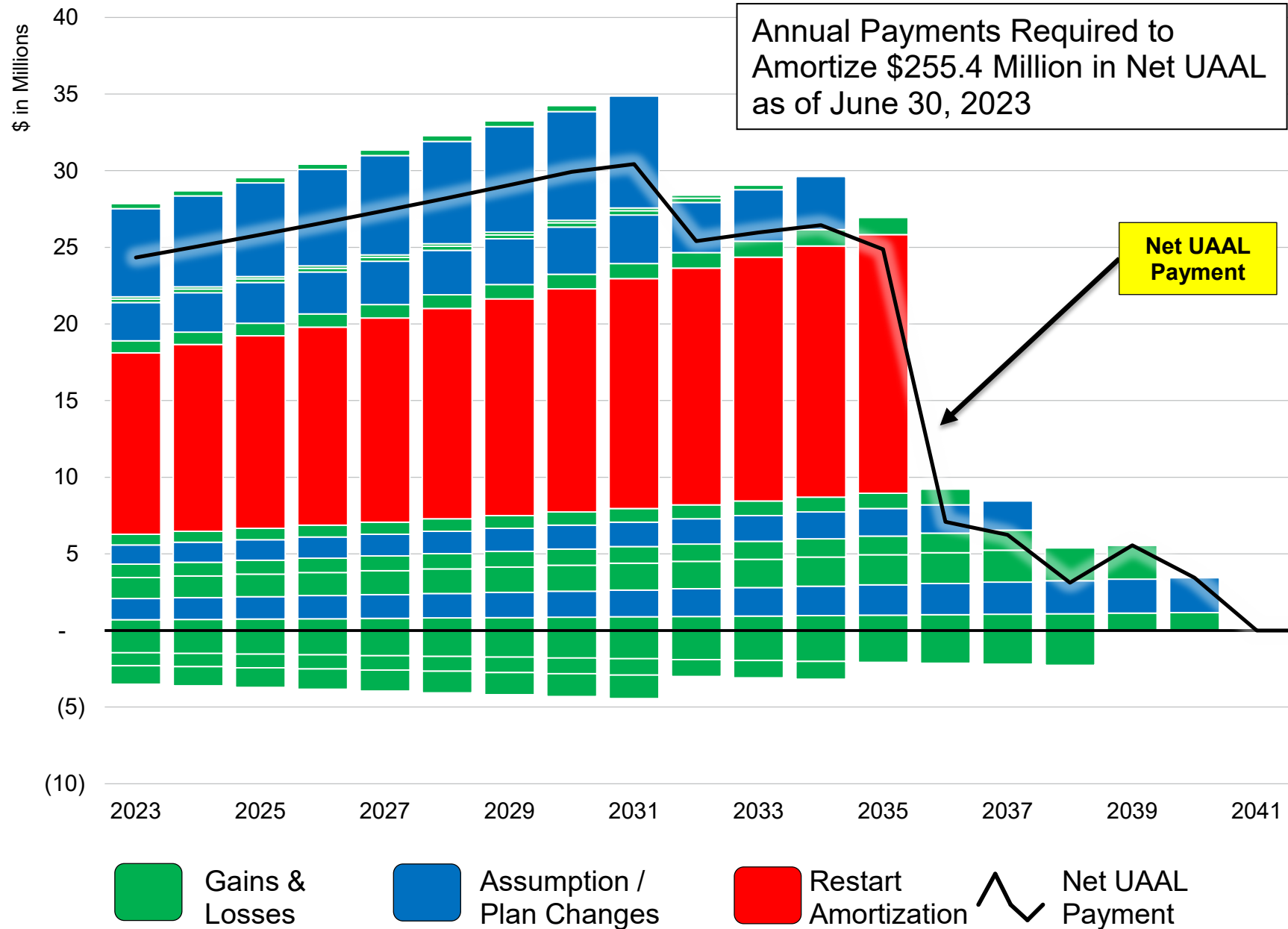
## Section 3: Supplemental Information

### Exhibit J: Projection of UAAL Balances and Payments



## Section 3: Supplemental Information

### Exhibit J: Projection of UAAL Balances and Payments (continued)





## Section 3: Supplemental Information

### Exhibit K: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

|  |  |
|--|--|
| <b>Actuarial Accrued Liability for Actives:</b>                      | The equivalent of the accumulated normal costs allocated to the years before the valuation date.   |
| <b>Actuarial Accrued Liability for Pensioners and Beneficiaries:</b> | Actuarial Present Value of lifetime benefits to existing pensioners and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.   |
| <b>Actuarial Cost Method:</b>  | A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.  |
| <b>Actuarial Gain or Loss:</b>                                       | A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected. |
| <b>Actuarially Equivalent:</b>                                       | Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.   |
| <b>Actuarial Present Value (APV):</b>                                | <p>The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:</p> <p>Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)</p> <p>Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and</p> <p>Discounted according to an assumed rate (or rates) of return to reflect the time value of money.</p>   |

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|   |   |
|---|---|
| <b>Actuarial Present Value of Future Plan Benefits:</b> | The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due. |
| <b>Actuarial Valuation:</b>                             | The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution and the Net Pension Liability (NPL).   |
| <b>Actuarial Value of Assets (AVA):</b>                 | The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.   |
| <b>Actuarially Determined:</b>                          | Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.   |
| <b>Actuarially Determined Contribution (ADC):</b>       | The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.   |
| <b>Amortization Method:</b>                             | A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.   |
| <b>Amortization Payment:</b>                            | The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.   |

## Section 3: Supplemental Information

|  |   |
|--|---|
| <b>Assumptions or Actuarial Assumptions:</b> | <p>The estimates upon which the cost of the Plan is calculated, including:</p> <p><u>Investment return</u> - the rate of investment yield that the Plan will earn over the long-term future;</p> <p><u>Mortality rates</u> - the rate or probability of death at a given age for employees and pensioners;</p> <p><u>Retirement rates</u> - the rate or probability of retirement at a given age or service;</p> <p><u>Disability rates</u> - the rate or probability of disability retirement at a given age;</p> <p><u>Withdrawal rates</u> - the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;</p> <p><u>Salary increase rates</u> - the rates of salary increase due to inflation, real wage growth and merit and promotion increases.</p> |
| <b>Closed Amortization Period:</b>           | <p>A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.</p>   |
| <b>Decrements:</b>                           | <p>Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.</p>   |
| <b>Defined Benefit Plan:</b>                 | <p>A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.</p>   |
| <b>Defined Contribution Plan:</b>            | <p>A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.</p>   |
| <b>Employer Normal Cost:</b>                 | <p>The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.</p>  |
| <b>Experience Study:</b>                     | <p>A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.</p>   |
| <b>Funded Ratio:</b>                         | <p>The ratio of the Valuation Value of Assets (VVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the VVA.</p>  |
| <b>Investment Return:</b>                    | <p>The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.</p>  |

## Section 3: Supplemental Information

|  |  |
|--|--|
| <b>Normal Cost:</b>                                | The portion of the Actuarial Present Value of Future Benefits allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated. |
| <b>Open Amortization Period:</b>                   | An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.  |
| <b>Unfunded Actuarial Accrued Liability:</b>       | The excess of the Actuarial Accrued Liability over the Valuation Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.  |
| <b>Valuation Date or Actuarial Valuation Date:</b> | The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.  |
| <b>Valuation Value of Assets:</b>                  | The Actuarial Value of Assets reduced by the value of non-valuation reserves.  |

# Section 4: Actuarial Valuation Basis

## Exhibit 1: Actuarial Assumptions and Methods

|   |   |
|---|---|
| <b>Rationale for Assumptions:</b>   | The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2019 through June 30, 2022 Actuarial Experience Study report dated May 11, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all membership groups (i.e., General, Safety, and Probation) and tiers. These assumptions were adopted by the Board. |
| <b><u>Economic Assumptions</u></b>  |   |
| <b>Net Investment Return:</b>   | 6.50%; net of administrative and investment expenses.<br>Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.30% of the Actuarial Value of Assets.  |
| <b>Employee Contribution Crediting Rate:</b>                                    | 6.50%, compounded semi-annually.  |
| <b>Cost of Living Adjustment:</b>   | Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (for non-CalPEPRA members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year).<br>No COLA increases for General Tier 4, Safety Tier 3, and Probation Tier 3.   |
| <b>Payroll Growth:</b>  | Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.  |
| <b>Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:</b> | Increase of 2.50% per year from the valuation date.   |
| <b>Increase in Section 7522.10 Compensation Limit:</b>                          | Increase of 2.50% per year from the valuation date.   |

## Section 4: Actuarial Valuation Basis

### Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across the board” salary increases of 0.50% per year, plus
- The following merit and promotion increases:

| Years of Service | Rate (%) |                      |
|------------------|----------|----------------------|
|                  | General  | Safety and Probation |
| Less than 1      | 5.00     | 5.25                 |
| 1 – 2            | 4.75     | 5.00                 |
| 2 – 3            | 4.50     | 4.50                 |
| 3 – 4            | 4.25     | 3.25                 |
| 4 – 5            | 3.50     | 3.00                 |
| 5 – 6            | 2.75     | 2.25                 |
| 6 – 7            | 2.25     | 2.00                 |
| 7 – 8            | 1.75     | 1.50                 |
| 8 – 9            | 1.50     | 1.25                 |
| 9 – 10           | 1.00     | 1.25                 |
| 10 – 11          | 1.00     | 1.25                 |
| 11 – 12          | 1.00     | 1.25                 |
| 12 & Over        | 1.00     | 1.00                 |

### Demographic Assumptions:

#### Post-Retirement Mortality Rates:

*Healthy*

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

*Disabled*

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety and Probation Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

## Section 4: Actuarial Valuation Basis

### Post-Retirement Mortality Rates (continued):

#### Beneficiaries

- **Beneficiaries not currently in Pay Status:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries currently in Pay Status:** Pub-2010 Contingent Survivor Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2021.

The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

### Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety and Probation Members:** Pub-2010 Safety Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

| Age | Rate (%) |        |                      |        |
|-----|----------|--------|----------------------|--------|
|     | General  |        | Safety and Probation |        |
|     | Male     | Female | Male                 | Female |
| 25  | 0.03     | 0.01   | 0.04                 | 0.02   |
| 30  | 0.04     | 0.02   | 0.04                 | 0.03   |
| 35  | 0.05     | 0.02   | 0.05                 | 0.04   |
| 40  | 0.07     | 0.04   | 0.06                 | 0.05   |
| 45  | 0.10     | 0.06   | 0.08                 | 0.07   |
| 50  | 0.15     | 0.08   | 0.12                 | 0.09   |
| 55  | 0.22     | 0.12   | 0.18                 | 0.12   |
| 60  | 0.32     | 0.19   | 0.26                 | 0.17   |
| 65  | 0.47     | 0.30   | 0.41                 | 0.23   |
| 70  | 0.70     | 0.49   | 0.77                 | 0.45   |

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates. All General pre-retirement deaths are assumed to be non-service connected deaths. All Safety and Probation pre-retirement deaths are assumed to be service connected deaths.

## Section 4: Actuarial Valuation Basis

### Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 80% male and 20% female.

### Disability Incidence:

| Age | Rate (%) |        |           |
|-----|----------|--------|-----------|
|     | General  | Safety | Probation |
| 20  | 0.01     | 0.10   | 0.10      |
| 25  | 0.01     | 0.13   | 0.13      |
| 30  | 0.01     | 0.18   | 0.18      |
| 35  | 0.02     | 0.98   | 0.98      |
| 40  | 0.13     | 1.68   | 1.68      |
| 45  | 0.26     | 1.80   | 1.80      |
| 50  | 0.42     | 2.37   | 2.37      |
| 55  | 0.50     | 2.75   | 2.75      |
| 60  | 0.56     | 3.20   | 3.20      |
| 65  | 0.60     | 0.00   | 0.00      |

60% of General disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

95% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 5% are assumed to be non-service connected disabilities.



## Section 4: Actuarial Valuation Basis

### Termination:

| Years of Service | Rate (%) |        |           |
|------------------|----------|--------|-----------|
|                  | General  | Safety | Probation |
| Less than 1      | 23.00    | 16.00  | 16.00     |
| 1 – 2            | 19.00    | 15.00  | 15.00     |
| 2 – 3            | 14.00    | 14.00  | 14.00     |
| 3 – 4            | 12.00    | 13.00  | 13.00     |
| 4 – 5            | 9.00     | 12.00  | 12.00     |
| 5 – 6            | 8.00     | 7.00   | 7.00      |
| 6 – 7            | 7.00     | 6.00   | 6.00      |
| 7 – 8            | 7.00     | 5.00   | 5.00      |
| 8 – 9            | 7.00     | 5.00   | 5.00      |
| 9 – 10           | 6.50     | 4.00   | 4.00      |
| 10 – 11          | 6.50     | 2.50   | 2.50      |
| 11 – 12          | 6.50     | 2.50   | 2.50      |
| 12 – 13          | 6.50     | 2.50   | 2.50      |
| 13 – 14          | 6.50     | 2.50   | 2.50      |
| 14 – 15          | 6.50     | 2.00   | 2.00      |
| 15 – 16          | 6.50     | 2.00   | 2.00      |
| 16 – 17          | 6.50     | 1.50   | 1.50      |
| 17 – 18          | 6.50     | 1.50   | 1.50      |
| 18 – 19          | 6.50     | 1.50   | 1.50      |
| 19 – 20          | 6.50     | 1.50   | 1.50      |
| 20 & Over        | 6.50     | 1.50   | 1.50      |

90% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 10% are assumed to choose a deferred vested benefit.

20% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 80% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

## Section 4: Actuarial Valuation Basis

### Retirement Rates:

| Age | Rate (%)                         |                                |                |
|-----|----------------------------------|--------------------------------|----------------|
|     | General Tiers 1, 2, & 3          |                                |                |
|     | Less than 30<br>Years of Service | 30 or More<br>Years of Service | General Tier 4 |
| 50  | 5.00                             | 5.00                           | 0.00           |
| 51  | 5.00                             | 5.00                           | 0.00           |
| 52  | 5.00                             | 5.00                           | 6.00           |
| 53  | 5.00                             | 5.00                           | 3.00           |
| 54  | 5.00                             | 5.00                           | 3.00           |
| 55  | 5.00                             | 5.00                           | 5.00           |
| 56  | 5.00                             | 5.00                           | 5.00           |
| 57  | 10.00                            | 15.00                          | 6.00           |
| 58  | 10.00                            | 15.00                          | 6.00           |
| 59  | 10.00                            | 15.00                          | 6.00           |
| 60  | 12.00                            | 25.00                          | 6.00           |
| 61  | 14.00                            | 25.00                          | 10.00          |
| 62  | 22.00                            | 35.00                          | 12.00          |
| 63  | 20.00                            | 25.00                          | 14.00          |
| 64  | 20.00                            | 25.00                          | 12.00          |
| 65  | 40.00                            | 45.00                          | 30.00          |
| 66  | 40.00                            | 45.00                          | 30.00          |
| 67  | 40.00                            | 45.00                          | 30.00          |
| 68  | 40.00                            | 45.00                          | 30.00          |
| 69  | 40.00                            | 45.00                          | 30.00          |
| 70  | 50.00                            | 50.00                          | 50.00          |
| 71  | 50.00                            | 50.00                          | 50.00          |
| 72  | 50.00                            | 50.00                          | 50.00          |
| 73  | 50.00                            | 50.00                          | 50.00          |
| 74  | 50.00                            | 50.00                          | 50.00          |
| 75  | 100.00                           | 100.00                         | 100.00         |

The retirement rates only apply to members who are eligible to retire at the age shown.

## Section 4: Actuarial Valuation Basis

### Retirement Rates (continued):

| Age | Rate (%)                      |                             |               |                       |                  |
|-----|-------------------------------|-----------------------------|---------------|-----------------------|------------------|
|     | Safety Tiers 1 & 2            |                             | Safety Tier 3 | Probation Tiers 1 & 2 | Probation Tier 3 |
|     | Less than 25 Years of Service | 25 or More Years of Service |               |                       |                  |
| 50  | 6.00                          | 15.00                       | 3.00          | 5.00                  | 4.00             |
| 51  | 6.00                          | 15.00                       | 3.00          | 5.00                  | 4.00             |
| 52  | 6.00                          | 15.00                       | 3.00          | 5.00                  | 4.00             |
| 53  | 8.00                          | 20.00                       | 3.00          | 5.00                  | 4.00             |
| 54  | 12.00                         | 30.00                       | 4.00          | 5.00                  | 4.00             |
| 55  | 15.00                         | 35.00                       | 6.00          | 20.00                 | 12.00            |
| 56  | 20.00                         | 45.00                       | 12.00         | 20.00                 | 21.00            |
| 57  | 25.00                         | 45.00                       | 15.00         | 20.00                 | 21.00            |
| 58  | 30.00                         | 45.00                       | 18.00         | 20.00                 | 21.00            |
| 59  | 40.00                         | 45.00                       | 40.00         | 20.00                 | 21.00            |
| 60  | 50.00                         | 50.00                       | 50.00         | 50.00                 | 50.00            |
| 61  | 50.00                         | 50.00                       | 50.00         | 50.00                 | 50.00            |
| 62  | 50.00                         | 50.00                       | 50.00         | 50.00                 | 50.00            |
| 63  | 50.00                         | 50.00                       | 50.00         | 50.00                 | 50.00            |
| 64  | 50.00                         | 50.00                       | 50.00         | 50.00                 | 50.00            |
| 65  | 100.00                        | 100.00                      | 100.00        | 100.00                | 100.00           |

The retirement rates only apply to members who are eligible to retire at the age shown.

### Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, retirement age assumptions are as follows:

- General Retirement Age: 61
- Safety and Probation Retirement Age: 54

Deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 if they decide to leave their contributions on deposit.

65% of future deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% compensation increases are assumed per annum.

### Future Benefit Accruals:

1.0 year of service per year of employment, plus 0.017 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.

## Section 4: Actuarial Valuation Basis

|  |  |
|--|--|
| <b>Unknown Data for Members:</b>             | Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.   |
| <b>Inclusion of Deferred Vested Members:</b> | All deferred vested members are included in the valuation.   |
| <b>Form of Payment:</b>                      | All active and inactive members are assumed to elect the unmodified option at retirement.  |
| <b>Percent Married:</b>                      | For all active and inactive members, 70% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.  |
| <b>Age and Gender of Spouse:</b>             | For all active and inactive members, male members are assumed to have a female spouse who is 2 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.  |
| <b><u>Actuarial Funding Policy</u></b>       |  |
| <b>Actuarial Cost Method:</b>                | Entry Age Cost Method. Entry Age is the age on the valuation date minus years of service rounded down. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., “replacement life within a tier”).   |
| <b>Actuarial Value of Assets:</b>            | Market Value of Assets (MVA) less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return adjusted for investment expenses only <sup>1</sup> and the expected return on the valuation value and is recognized over a five-year period. The Actuarial Value of Assets (AVA) is limited by a 25% corridor; the AVA cannot be less than 75% of MVA, nor greater than 125% of MVA.  |
| <b>Valuation Value of Assets:</b>            | The Actuarial Value of Assets reduced by the value of the non-valuation reserves.  |
| <b>Amortization Policy:</b>                  | <p>Prior to July 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012. On December 15, 2021, the Board reduced the amortization period for the 2012 UAAL restart layer by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023).</p> <p>On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.</p> |

<sup>1</sup> Based on past practice, administrative expenses are included with benefit payments and are not subject to five-year asset smoothing.

## Section 4: Actuarial Valuation Basis

### Other Actuarial Methods

#### **Employer Contributions:**

Employer contributions consist of two components:

##### *Normal Cost*

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution rate is expressed as a level percentage of the member's compensation.

##### *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)*

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.00% (i.e., 2.50% inflation plus 0.50% across-the-board salary increase).

The amortization policy is described on the previous page.

Also, under the Board's funding policy adopted on April 17, 2013, in addition to the UAAL contribution rate, an amortization amount equal to the UAAL contribution rate times the covered payroll (as estimated in the actuarial valuation that establishes such UAAL contribution rate) will be calculated for each employer. The final UAAL payment by each employer will be equal to the UAAL contribution rate times the actual covered payroll or the above amortization amount, if greater. This means that UAAL contribution amounts will be equal to the greater of the UAAL contribution rates developed in Section 2, Subsection F of this valuation times the actual fiscal year 2024/2025 payroll, or the estimated UAAL annual contribution amounts also provided in Section 2, Subsection F of this valuation. To facilitate the calculation of the minimum UAAL dollar contribution amount, we have provided in Section 2, Subsection F a breakdown of the estimated UAAL annual contribution amounts by employer (i.e., County of Mendocino, Mendocino County Superior Court, and Russian River Cemetery District).

On June 19, 2013 the Board adopted an additional change to the actuarial funding policy to anticipate the contribution rate impact that would result from the lag between the date of the actuarial valuation and the date of the contribution rate implementation. In general, the contribution rates determined in an actuarial valuation will apply to the fiscal year beginning 12 months after the valuation date. In compliance with the change in the funding policy, the employer contribution rates developed in this valuation have been adjusted to anticipate the delay in implementing the change in the employer contribution rates determined as of June 30, 2023 for the fiscal year 2024/2025. This adjustment is reflected in the UAAL portion of the June 30, 2023 employer rates.

The recommended employer contributions are provided in Section 2, Subsection F. The minimum amounts required from each employer to amortize their UAAL are also provided in Section 2, Subsection F.

## Section 4: Actuarial Valuation Basis

### Member Contributions:

#### *General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2*

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General Tier 1-3 members and for Safety and Probation Tier 1-2 members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary. That age is 60 for General members and 50 for Safety and Probation members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. Following practices established by the Association's previous actuary prior to the June 30, 2011 valuation, we have also included a 1.63% of pay offset to the Safety member rates, which is picked up by the County. No other subsidies have been reflected in the member contribution rates.

#### *General Tier 4, Safety Tier 3, and Probation Tier 3*

Pursuant to Section 7522.30(a) of the Government Code, General Tier 4, Safety Tier 3, and Probation Tier 3 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not the requirements of Section 7522.30(e).

Accumulation for all members includes semi-annual crediting of interest at the assumed investment earnings rate.

The member contribution rates for all members are provided in *Section 4, Exhibit 3*.

## Section 4: Actuarial Valuation Basis

|   |  |
|---|--|
| <b>Internal Revenue Code Section 415:</b>                                       | <p>Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.</p> <p>A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.</p> <p>In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$265,000 for 2023. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.</p> <p>Benefits for members in non-CalPEPRA tiers in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).</p> <p>Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.</p> <p>Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.</p> |
| <b>Change in Actuarial Assumptions and Methods:</b>                             | <p>Based on the Actuarial Experience Study, the following assumptions were changed. Previously, these assumptions and methods were as follows:</p>   |
| <i>Net Investment Return:</i>   | <p>6.75%; net of administrative and investment expenses.<br/>Expected administrative and investment expenses represent about 0.40% of the Market Value of Assets.</p>  |
| <i>Employee Contribution Crediting Rate:</i>                                    | <p>6.75%, compounded semi-annually.</p>  |
| <i>Payroll Growth:</i>  | <p>Inflation of 2.75% per year plus real "across the board" salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.</p>  |
| <i>Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:</i> | <p>Increase of 2.75% per year from the valuation date.</p>   |
| <i>Increase in Section 7522.10 Compensation Limit:</i>                          | <p>Increase of 2.75% per year from the valuation date.</p>   |

## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

#### Salary Increases:

The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

| Years of Service | Merit and Promotion Increases |                      |
|------------------|-------------------------------|----------------------|
|                  | Rate (%)                      |                      |
|                  | General                       | Safety and Probation |
| Less than 1      | 5.00                          | 5.00                 |
| 1 – 2            | 4.50                          | 4.25                 |
| 2 – 3            | 4.00                          | 3.75                 |
| 3 – 4            | 3.25                          | 3.25                 |
| 4 – 5            | 2.75                          | 2.50                 |
| 5 – 6            | 2.25                          | 2.00                 |
| 6 – 7            | 2.00                          | 1.75                 |
| 7 – 8            | 1.75                          | 1.25                 |
| 8 – 9            | 1.25                          | 1.00                 |
| 9 – 10           | 1.00                          | 1.00                 |
| 10 & Over        | 1.00                          | 1.00                 |

#### Post-Retirement Mortality Rates:

##### Healthy

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

##### Disabled

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

##### Beneficiaries

**All Beneficiaries:** Pub-2010 Contingent Survivor Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019



## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

#### *Pre-Retirement Mortality Rates:*

- **General Members:** Pub-2010 General Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

| Age | Rate (%) |        |                      |        |
|-----|----------|--------|----------------------|--------|
|     | General  |        | Safety and Probation |        |
|     | Male     | Female | Male                 | Female |
| 25  | 0.03     | 0.01   | 0.04                 | 0.02   |
| 30  | 0.04     | 0.02   | 0.04                 | 0.03   |
| 35  | 0.05     | 0.02   | 0.05                 | 0.04   |
| 40  | 0.07     | 0.04   | 0.06                 | 0.05   |
| 45  | 0.10     | 0.06   | 0.08                 | 0.07   |
| 50  | 0.15     | 0.08   | 0.12                 | 0.09   |
| 55  | 0.22     | 0.12   | 0.18                 | 0.12   |
| 60  | 0.32     | 0.19   | 0.26                 | 0.17   |
| 65  | 0.47     | 0.30   | 0.41                 | 0.23   |
| 70  | 0.70     | 0.49   | 0.77                 | 0.45   |

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates. All General pre-retirement deaths are assumed to be non-service connected deaths. All Safety and Probation pre-retirement deaths are assumed to be service connected deaths.

#### *Mortality Rates for Member Contributions:*

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female.

## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

#### *Disability Incidence:*

| Age | Rate (%) |        |           |
|-----|----------|--------|-----------|
|     | General  | Safety | Probation |
| 20  | 0.01     | 0.10   | 0.10      |
| 25  | 0.01     | 0.13   | 0.13      |
| 30  | 0.01     | 0.18   | 0.18      |
| 35  | 0.02     | 0.98   | 0.98      |
| 40  | 0.13     | 1.68   | 1.68      |
| 45  | 0.29     | 1.80   | 1.80      |
| 50  | 0.44     | 2.37   | 2.37      |
| 55  | 0.50     | 2.75   | 2.75      |
| 60  | 0.56     | 0.00   | 0.00      |
| 65  | 0.63     | 0.00   | 0.00      |

50% of General disabilities are assumed to be service connected disabilities. The other 50% are assumed to be non-service connected disabilities.

90% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 10% are assumed to be non-service connected disabilities.

## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

#### Termination:

#### *Less Than Five Years of Service*

| Years of Service | Rate (%) |        |           |
|------------------|----------|--------|-----------|
|                  | General  | Safety | Probation |
| Less than 1      | 24.00    | 14.00  | 14.00     |
| 1 – 2            | 16.00    | 13.00  | 13.00     |
| 2 – 3            | 14.00    | 12.00  | 12.00     |
| 3 – 4            | 12.00    | 10.00  | 10.00     |
| 4 – 5            | 11.00    | 8.00   | 8.00      |

85% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 15% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

#### *Five or More Years of Service*

| Age | Rate (%) |        |           |
|-----|----------|--------|-----------|
|     | General  | Safety | Probation |
| 20  | 8.00     | 7.00   | 7.00      |
| 25  | 8.00     | 7.00   | 7.00      |
| 30  | 8.00     | 6.40   | 6.40      |
| 35  | 8.00     | 6.00   | 6.00      |
| 40  | 8.00     | 4.80   | 4.80      |
| 45  | 6.80     | 3.40   | 3.40      |
| 50  | 6.00     | 1.80   | 1.80      |
| 55  | 6.00     | 0.40   | 0.40      |
| 60  | 5.40     | 0.00   | 0.00      |
| 65  | 4.40     | 0.00   | 0.00      |

25% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 75% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

#### Retirement Rates:

| Age       | Rate (%)                   |                   |                       |                  |                          |                     |
|-----------|----------------------------|-------------------|-----------------------|------------------|--------------------------|---------------------|
|           | General<br>Tiers 1, 2, & 3 | General<br>Tier 4 | Safety<br>Tiers 1 & 2 | Safety<br>Tier 3 | Probation<br>Tiers 1 & 2 | Probation<br>Tier 3 |
| 50        | 5.00                       | 0.00              | 8.00                  | 3.00             | 5.00                     | 4.00                |
| 51        | 5.00                       | 0.00              | 8.00                  | 3.00             | 5.00                     | 4.00                |
| 52        | 5.00                       | 6.00              | 8.00                  | 3.00             | 5.00                     | 4.00                |
| 53        | 5.00                       | 3.00              | 8.00                  | 3.00             | 5.00                     | 4.00                |
| 54        | 5.00                       | 3.00              | 8.00                  | 3.00             | 5.00                     | 4.00                |
| 55        | 10.00                      | 5.00              | 10.00                 | 4.00             | 23.00                    | 13.00               |
| 56        | 10.00                      | 5.00              | 15.00                 | 10.00            | 23.00                    | 24.00               |
| 57        | 10.00                      | 5.00              | 20.00                 | 12.00            | 23.00                    | 24.00               |
| 58        | 10.00                      | 5.00              | 25.00                 | 15.00            | 23.00                    | 24.00               |
| 59        | 10.00                      | 5.00              | 30.00                 | 30.00            | 23.00                    | 24.00               |
| 60        | 12.00                      | 6.00              | 100.00                | 100.00           | 100.00                   | 100.00              |
| 61        | 15.00                      | 9.00              | 100.00                | 100.00           | 100.00                   | 100.00              |
| 62        | 25.00                      | 12.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 63        | 20.00                      | 14.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 64        | 20.00                      | 12.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 65        | 45.00                      | 32.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 66        | 45.00                      | 32.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 67        | 45.00                      | 32.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 68        | 45.00                      | 32.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 69        | 45.00                      | 32.00             | 100.00                | 100.00           | 100.00                   | 100.00              |
| 70 & Over | 100.00                     | 100.00            | 100.00                | 100.00           | 100.00                   | 100.00              |

The retirement rates only apply to members that are eligible to retire at the age shown.

#### Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, retirement age assumptions are as follows:

General Retirement Age: 60

Safety and Probation Retirement Age: 54

Deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 if they decide to leave their contributions on deposit.

65% of future deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.25% compensation increases are assumed per annum.

## Section 4: Actuarial Valuation Basis

### Prior Actuarial Assumptions (continued):

*Actuarial Cost Method:*

Entry Age Cost Method. Entry Age is the age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., “replacement life within a tier”).

## Section 4: Actuarial Valuation Basis

### Exhibit 2: Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

|                                |  |
|--------------------------------|--|
| <b>Plan Year:</b>              | July 1 through June 30   |
| <b>Membership Eligibility:</b> | Membership with MCERA usually begins with the first day of the pay period following the date of entrance into service.   |
| <i>General Tier 1</i>          | All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired prior to July 1, 1984.                                 |
| <i>General Tier 2</i>          | General Tier 2 has been replaced by General Tier 3.  |
| <i>General Tier 3</i>          | All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after July 1, 1984 and prior to January 1, 2013. |
| <i>General Tier 4</i>          | All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after January 1, 2013.                           |
| <i>Safety Tier 1</i>           | All employees appointed to a position in active law enforcement who were hired prior to June 1, 1982.  |
| <i>Safety Tier 2</i>           | All employees appointed to a position in active law enforcement who were hired on or after June 1, 1982 and prior to January 1, 2013.  |
| <i>Safety Tier 3</i>           | All employees appointed to a position in active law enforcement who were hired on or after January 1, 2013.  |
| <i>Probation Tier 1</i>        | All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired prior to July 1, 1984.   |
| <i>Probation Tier 2</i>        | All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after July 1, 1984 and prior to January 1, 2013.                           |
| <i>Probation Tier 3</i>        | All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after January 1, 2013.   |

## Section 4: Actuarial Valuation Basis

|   |   |
|---|---|
| <b>Final Compensation for Benefit Determination:</b>                                |   |
| <i>General Tier 1, Safety Tier 1, and Probation Tier 1</i>                          | Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).   |
| <i>General Tiers 2 and 3, Safety Tier 2, and Probation Tier 2</i>                   | Highest consecutive thirty-six months of compensation earnable (§31462) (FAS3).   |
| <i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>                          | Highest consecutive thirty-six months of pensionable compensation (§7522.10(c), §7522.32, §7522.34) (FAS3).   |
| <b>Compensation Limit:</b>  |   |
| <i>General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2</i> | For members with membership dates on or after July 1, 1996, compensation earnable is limited by Internal Revenue Code Section 401(a)(17). The limit for 2023 is \$330,000. The limit is indexed for inflation on an annual basis.   |
| <i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>                          | Pensionable compensation is limited to \$146,042 for 2023 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2023 is 120% of \$146,042, or \$175,250. (reference: Section 7522.10) These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2023. (reference: Section 7522.10(d)) |
| <b>Service:</b>   | Years of service (Yrs) is based on the number of pay periods in which contributions are received (1 year of service equals 26 biweekly pay periods).  |
| <b>Service Retirement Eligibility:</b>  |   |
| <i>General Tiers 1, 2, and 3</i>  | Age 50 with 5 years of service and 10 years of membership, or age 70, or after 30 years of service regardless of age (§31672).  |
| <i>General Tier 4</i>   | Age 52 with 5 years of service, or age 70 (§7522.20(a)).  |
| <i>Safety and Probation Tiers 1 and 2</i>   | Age 50 with 5 years of service and 10 years of membership, or age 70, or after 20 years of service regardless of age (§31663.25).   |
| <i>Safety and Probation Tier 3</i>  | Age 50 with 5 years of service, or age 70 (§7522.25(d)).  |

## Section 4: Actuarial Valuation Basis

### Benefit Formula:

#### General Tier 1 (§31676.12)\*

| Retirement Age | Benefit Formula  |
|----------------|--|
| 50             | $(1.34\% \times \text{FAS1} - 1/3 \times 1.34\% \times \$350 \times 12) \times \text{Yrs}$ |
| 55             | $(1.77\% \times \text{FAS1} - 1/3 \times 1.77\% \times \$350 \times 12) \times \text{Yrs}$ |
| 60             | $(2.34\% \times \text{FAS1} - 1/3 \times 2.34\% \times \$350 \times 12) \times \text{Yrs}$ |
| 62 and over    | $(2.62\% \times \text{FAS1} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$ |

#### General Tier 2 and General Tier 3 (§31676.12)\*

| Retirement Age | Benefit Formula  |
|----------------|--|
| 50             | $(1.34\% \times \text{FAS3} - 1/3 \times 1.34\% \times \$350 \times 12) \times \text{Yrs}$ |
| 55             | $(1.77\% \times \text{FAS3} - 1/3 \times 1.77\% \times \$350 \times 12) \times \text{Yrs}$ |
| 60             | $(2.34\% \times \text{FAS3} - 1/3 \times 2.34\% \times \$350 \times 12) \times \text{Yrs}$ |
| 62 and over    | $(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$ |

\* For members in Bargaining Groups 01 and 101 who have service prior to October 1, 2003 and who have not purchased this service to be covered under Section 31676.12, their prior service will be covered under Section 31676.11 for Tier 1 and Tier 2 and Section 31676.1 for Tier 3. For all other Bargaining Groups, the prior service date is January 1, 2002 (instead of October 1, 2003).

#### General Tier 4 (§7522.20(a))

| Retirement Age | Benefit Formula                               |
|----------------|---|
| 52             | $1.00\% \times \text{FAS3} \times \text{Yrs}$ |
| 55             | $1.30\% \times \text{FAS3} \times \text{Yrs}$ |
| 60             | $1.80\% \times \text{FAS3} \times \text{Yrs}$ |
| 62             | $2.00\% \times \text{FAS3} \times \text{Yrs}$ |
| 65             | $2.30\% \times \text{FAS3} \times \text{Yrs}$ |
| 67 and over    | $2.50\% \times \text{FAS3} \times \text{Yrs}$ |

#### Safety Tier 1 (§31664.2)

| Retirement Age | Benefit Formula  |
|----------------|--|
| 50             | $(2.29\% \times \text{FAS1} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$ |
| 55 and over    | $(3.00\% \times \text{FAS1} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$ |

#### Safety Tier 2 (§31664.2)

| Retirement Age | Benefit Formula  |
|----------------|--|
| 50             | $(2.29\% \times \text{FAS3} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$ |
| 55 and over    | $(3.00\% \times \text{FAS3} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$ |



## Section 4: Actuarial Valuation Basis

| <b>Benefit Formula: (continued)</b>   |   |  |
|---|---|--|
| <i>Safety Tier 3 (§7522.25(d))</i>  | <b>Retirement Age</b>   | <b>Benefit Formula</b>   |
|   | 50  | 2.00% x FAS3 x Yrs   |
|   | 55  | 2.50% x FAS3 x Yrs   |
|   | 57 and over   | 2.70% x FAS3 x Yrs   |
| <i>Probation Tier 1 (§31664)</i>  | <b>Retirement Age</b>   | <b>Benefit Formula</b>   |
|   | 50  | $(2.00\% \times \text{FAS1} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$ |
|   | 55 and over   | $(2.62\% \times \text{FAS1} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$ |
| <i>Probation Tier 2 (§31664)</i>  | <b>Retirement Age</b>   | <b>Benefit Formula</b>   |
|   | 50  | $(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$ |
|   | 55 and over   | $(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$ |
| <i>Probation Tier 3 (§7522.25(d))</i>   | <b>Retirement Age</b>   | <b>Benefit Formula</b>   |
|   | 50  | 2.00% x FAS3 x Yrs   |
|   | 55  | 2.50% x FAS3 x Yrs   |
|   | 57 and over   | 2.70% x FAS3 x Yrs   |
| <b>Maximum Benefit:</b>   |   |  |
| <i>General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2</i> | 100% of Highest Average Compensation (§31676.12, §31664.2, and §31664).   |  |
| <i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>                          | None (§7522.20(a) and §7522.25(d)).   |  |
| <b>Non-Service Connected Disability:</b>  |   |  |
| <i>All Members</i>  |   |  |
| <i>Eligibility</i>  | Five years of service (§31720).   |  |
| <i>Benefit Formula</i>  | 1.8% of Final Compensation per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62 for General members and to age 55 for Safety and Probation members, but the total benefit cannot be more than one-third of Final Compensation (§31727.1 and §31727.2). |  |

## Section 4: Actuarial Valuation Basis

### Service Connected Disability:

#### All Members

|                        |   |
|------------------------|---|
| <i>Eligibility</i>     | No age or service requirements (§31720).  |
| <i>Benefit Formula</i> | 50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4). |

### Pre-Retirement Death:

#### All Members

|                                |  |
|--------------------------------|--|
| <i>Eligibility</i>             | None.  |
| <i>Basic Lump Sum Benefit</i>  | Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six month's compensation (§31781). |
| <i>Service Connected Death</i> | 50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse* or minor children (§31787).                                |

\* *In this summary, the continuance benefit payable to the spouse is also available to the eligible domestic partner.*

#### Vested Members

|                                |  |
|--------------------------------|--|
| <i>Eligibility</i>             | Five years of service.   |
| <i>Basic Benefit</i>           | 60% of the greater of Service or Non-Service Connected Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of the basic lump sum benefit above. |
| <i>Service Connected Death</i> | 50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).   |

### Death After Retirement:

#### All Members

|  |   |
|--|---|
| <i>Lump Sum Death Benefit</i>  | \$1,000 lump sum death benefit paid to the estate or designated beneficiary (§31789, §31789.13).  |
| <i>Service Retirement or Non-Service Connected Disability Retirement</i> | Unless another option was selected at retirement, 60% of member's unmodified allowance continues to eligible spouse (§31760.1).* An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1). |
| <i>Service Connected Disability Retirement</i>                           | Unless another option was selected at retirement, 100% of member's allowance continued to eligible spouse (§31786).   |

\* *100% of the COLA benefit is continued to the survivor upon the member's death for a member who retired prior to September 17, 2014 for service or non-service connected disability and chose the unmodified option at retirement.*

## Section 4: Actuarial Valuation Basis

|   |   |
|---|---|
| <b>Withdrawal Benefits:</b>   |   |
| <i>Less than Five Years of Service</i>  | Refund of accumulated employee contributions with interest (§31628).  |
| <i>Five or More Years of Service</i>  | If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).   |
| <b>Post-retirement Cost-of-Living Benefits:</b>                                     |   |
| <i>General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2</i> | Annual adjustment based on Consumer Price Index to a maximum of 3% per year; excess “banked” (§31870.1).  |
| <i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>                          | None.   |
| <b>Member Contributions:</b>  |   |
| <i>General Tier 1</i>   |   |
| <i>Basic</i>  | Entry-age based rates that provide for an annuity at age 60 equal to 1/100 of FAS1 (§31621.2).  |
| <i>Cost-of-Living</i>   | Entry-age based rates that provide for one-half of future Cost-of-Living costs.   |
| <i>General Tier 2 and General Tier 3</i>  |   |
| <i>Basic</i>  | Entry-age based rates that provide for an annuity at age 60 equal to 1/100 of FAS3 (§31621.2).  |
| <i>Cost-of-Living</i>   | Entry-age based rates that provide for one-half of future Cost-of-Living costs.   |
| <i>General Tier 4</i>   | 50% of the total Normal Cost rate.  |
| <i>Safety Tier 1 and Probation Tier 1</i>   |   |
| <i>Basic</i>  | Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS1 (§31639.25).   |
| <i>Cost-of-Living</i>   | Entry-age based rates that provide for one-half of future Cost-of-Living costs. Safety Tier 1 Cost-of-Living member rates are offset by 1.63% of pay, which is picked up by the County. |
| <i>Safety Tier 2 and Probation Tier 2</i>   |   |
| <i>Basic</i>  | Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS3 (§31639.25).   |
| <i>Cost-of-Living</i>   | Entry-age based rates that provide for one-half of future Cost-of-Living costs. Safety Tier 2 Cost-of-Living member rates are offset by 1.63% of pay, which is picked up by the County. |
| <i>Safety Tier 3 and Probation Tier 3</i>   | 50% of the total Normal Cost rate.  |

## Section 4: Actuarial Valuation Basis

|                                    |  |
|------------------------------------|--|
| <b>Other Information:</b>          | All non-CalPEPRA members with 30 or more years of service are exempt from paying member contributions. |
| <b>Changes in Plan Provisions:</b> | There have been no changes in plan provisions since the last valuation.                                |

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates

General Tier 1 Members' Contribution Rate Based on the June 30, 2023 Actuarial Valuation<sup>1</sup>  
(as a % of biweekly payroll)

| Entry Age | General Tier 1 |               |                |               |                |               |
|-----------|----------------|---------------|----------------|---------------|----------------|---------------|
|           | Basic          |               | COLA           |               | Total          |               |
|           | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 15        | 4.76%          | 7.14%         | 1.76%          | 2.64%         | 6.52%          | 9.78%         |
| 16        | 4.76%          | 7.14%         | 1.76%          | 2.64%         | 6.52%          | 9.78%         |
| 17        | 4.83%          | 7.24%         | 1.79%          | 2.68%         | 6.62%          | 9.92%         |
| 18        | 4.89%          | 7.34%         | 1.81%          | 2.72%         | 6.70%          | 10.06%        |
| 19        | 4.97%          | 7.45%         | 1.84%          | 2.76%         | 6.81%          | 10.21%        |
| 20        | 5.03%          | 7.55%         | 1.86%          | 2.79%         | 6.89%          | 10.34%        |
| 21        | 5.11%          | 7.66%         | 1.89%          | 2.83%         | 7.00%          | 10.49%        |
| 22        | 5.18%          | 7.77%         | 1.92%          | 2.88%         | 7.10%          | 10.65%        |
| 23        | 5.25%          | 7.88%         | 1.95%          | 2.92%         | 7.20%          | 10.80%        |
| 24        | 5.33%          | 7.99%         | 1.97%          | 2.96%         | 7.30%          | 10.95%        |
| 25        | 5.40%          | 8.10%         | 2.00%          | 3.00%         | 7.40%          | 11.10%        |
| 26        | 5.48%          | 8.22%         | 2.03%          | 3.04%         | 7.51%          | 11.26%        |
| 27        | 5.55%          | 8.33%         | 2.05%          | 3.08%         | 7.60%          | 11.41%        |
| 28        | 5.63%          | 8.45%         | 2.09%          | 3.13%         | 7.72%          | 11.58%        |
| 29        | 5.71%          | 8.57%         | 2.11%          | 3.17%         | 7.82%          | 11.74%        |
| 30        | 5.79%          | 8.69%         | 2.15%          | 3.22%         | 7.94%          | 11.91%        |
| 31        | 5.87%          | 8.81%         | 2.17%          | 3.26%         | 8.04%          | 12.07%        |
| 32        | 5.96%          | 8.94%         | 2.21%          | 3.31%         | 8.17%          | 12.25%        |
| 33        | 6.04%          | 9.06%         | 2.23%          | 3.35%         | 8.27%          | 12.41%        |
| 34        | 6.13%          | 9.19%         | 2.27%          | 3.40%         | 8.40%          | 12.59%        |
| 35        | 6.21%          | 9.32%         | 2.30%          | 3.45%         | 8.51%          | 12.77%        |
| 36        | 6.31%          | 9.46%         | 2.33%          | 3.50%         | 8.64%          | 12.96%        |
| 37        | 6.39%          | 9.59%         | 2.37%          | 3.55%         | 8.76%          | 13.14%        |
| 38        | 6.49%          | 9.73%         | 2.40%          | 3.60%         | 8.89%          | 13.33%        |
| 39        | 6.58%          | 9.87%         | 2.43%          | 3.65%         | 9.01%          | 13.52%        |

<sup>1</sup> Provided for informational purposes only, as all of the General Tier 1 members in the June 30, 2023 valuation data had more than 30 years of service and are exempt from paying member contributions.

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

General Tier 1 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation<sup>1</sup>  
(as a % of biweekly payroll) (continued)

| General Tier 1 (continued) |                |               |                |               |                |               |
|----------------------------|----------------|---------------|----------------|---------------|----------------|---------------|
| Entry Age                  | Basic          |               | COLA           |               | Total          |               |
|                            | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 40                         | 6.67%          | 10.01%        | 2.47%          | 3.70%         | 9.14%          | 13.71%        |
| 41                         | 6.77%          | 10.16%        | 2.51%          | 3.76%         | 9.28%          | 13.92%        |
| 42                         | 6.87%          | 10.31%        | 2.55%          | 3.82%         | 9.42%          | 14.13%        |
| 43                         | 6.97%          | 10.46%        | 2.58%          | 3.87%         | 9.55%          | 14.33%        |
| 44                         | 7.08%          | 10.62%        | 2.62%          | 3.93%         | 9.70%          | 14.55%        |
| 45                         | 7.19%          | 10.79%        | 2.66%          | 3.99%         | 9.85%          | 14.78%        |
| 46                         | 7.31%          | 10.96%        | 2.71%          | 4.06%         | 10.02%         | 15.02%        |
| 47                         | 7.43%          | 11.14%        | 2.75%          | 4.12%         | 10.18%         | 15.26%        |
| 48                         | 7.55%          | 11.33%        | 2.79%          | 4.19%         | 10.34%         | 15.52%        |
| 49                         | 7.69%          | 11.53%        | 2.85%          | 4.27%         | 10.54%         | 15.80%        |
| 50                         | 7.83%          | 11.75%        | 2.90%          | 4.35%         | 10.73%         | 16.10%        |
| 51                         | 7.95%          | 11.93%        | 2.95%          | 4.42%         | 10.90%         | 16.35%        |
| 52                         | 8.07%          | 12.10%        | 2.99%          | 4.48%         | 11.06%         | 16.58%        |
| 53                         | 8.16%          | 12.24%        | 3.02%          | 4.53%         | 11.18%         | 16.77%        |
| 54                         | 8.23%          | 12.34%        | 3.05%          | 4.57%         | 11.28%         | 16.91%        |
| 55                         | 8.25%          | 12.38%        | 3.05%          | 4.58%         | 11.30%         | 16.96%        |
| 56                         | 8.23%          | 12.35%        | 3.05%          | 4.57%         | 11.28%         | 16.92%        |
| 57                         | 8.20%          | 12.30%        | 3.03%          | 4.55%         | 11.23%         | 16.85%        |
| 58                         | 8.15%          | 12.23%        | 3.02%          | 4.53%         | 11.17%         | 16.76%        |
| 59 & Over                  | 8.10%          | 12.15%        | 3.00%          | 4.50%         | 11.10%         | 16.65%        |

Interest: 6.50% per annum  
 COLA: 2.75%  
 Mortality: See Section 4, Exhibit 1  
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1)  
 COLA Loading Factor: 37.01%

<sup>1</sup> Provided for informational purposes only, as all of the General Tier 1 members in the June 30, 2023 valuation data had more than 30 years of service and are exempt from paying member contributions.

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

General Tier 2 and Tier 3 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll)

| Entry Age | General Tier 2 and 3 |               |                |               |                |               |
|-----------|----------------------|---------------|----------------|---------------|----------------|---------------|
|           | Basic                |               | COLA           |               | Total          |               |
|           | First \$161.54       | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 15        | 4.58%                | 6.87%         | 1.69%          | 2.54%         | 6.27%          | 9.41%         |
| 16        | 4.58%                | 6.87%         | 1.69%          | 2.54%         | 6.27%          | 9.41%         |
| 17        | 4.64%                | 6.96%         | 1.72%          | 2.58%         | 6.36%          | 9.54%         |
| 18        | 4.71%                | 7.06%         | 1.74%          | 2.61%         | 6.45%          | 9.67%         |
| 19        | 4.78%                | 7.17%         | 1.77%          | 2.65%         | 6.55%          | 9.82%         |
| 20        | 4.85%                | 7.27%         | 1.79%          | 2.69%         | 6.64%          | 9.96%         |
| 21        | 4.91%                | 7.37%         | 1.82%          | 2.73%         | 6.73%          | 10.10%        |
| 22        | 4.98%                | 7.47%         | 1.84%          | 2.76%         | 6.82%          | 10.23%        |
| 23        | 5.05%                | 7.58%         | 1.87%          | 2.81%         | 6.92%          | 10.39%        |
| 24        | 5.13%                | 7.69%         | 1.90%          | 2.85%         | 7.03%          | 10.54%        |
| 25        | 5.20%                | 7.80%         | 1.93%          | 2.89%         | 7.13%          | 10.69%        |
| 26        | 5.27%                | 7.91%         | 1.95%          | 2.93%         | 7.22%          | 10.84%        |
| 27        | 5.35%                | 8.02%         | 1.98%          | 2.97%         | 7.33%          | 10.99%        |
| 28        | 5.42%                | 8.13%         | 2.01%          | 3.01%         | 7.43%          | 11.14%        |
| 29        | 5.50%                | 8.25%         | 2.03%          | 3.05%         | 7.53%          | 11.30%        |
| 30        | 5.57%                | 8.36%         | 2.06%          | 3.09%         | 7.63%          | 11.45%        |
| 31        | 5.65%                | 8.48%         | 2.09%          | 3.14%         | 7.74%          | 11.62%        |
| 32        | 5.73%                | 8.60%         | 2.12%          | 3.18%         | 7.85%          | 11.78%        |
| 33        | 5.81%                | 8.72%         | 2.15%          | 3.23%         | 7.96%          | 11.95%        |
| 34        | 5.89%                | 8.84%         | 2.18%          | 3.27%         | 8.07%          | 12.11%        |
| 35        | 5.98%                | 8.97%         | 2.21%          | 3.32%         | 8.19%          | 12.29%        |
| 36        | 6.07%                | 9.10%         | 2.25%          | 3.37%         | 8.32%          | 12.47%        |
| 37        | 6.15%                | 9.23%         | 2.28%          | 3.42%         | 8.43%          | 12.65%        |
| 38        | 6.24%                | 9.36%         | 2.31%          | 3.46%         | 8.55%          | 12.82%        |
| 39        | 6.33%                | 9.49%         | 2.34%          | 3.51%         | 8.67%          | 13.00%        |

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

General Tier 2 and Tier 3 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll) (continued)

| General Tier 2 and 3 (continued) |                |               |                |               |                |               |
|----------------------------------|----------------|---------------|----------------|---------------|----------------|---------------|
| Entry Age                        | Basic          |               | COLA           |               | Total          |               |
|                                  | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 40                               | 6.42%          | 9.63%         | 2.37%          | 3.56%         | 8.79%          | 13.19%        |
| 41                               | 6.51%          | 9.77%         | 2.41%          | 3.62%         | 8.92%          | 13.39%        |
| 42                               | 6.61%          | 9.92%         | 2.45%          | 3.67%         | 9.06%          | 13.59%        |
| 43                               | 6.71%          | 10.07%        | 2.49%          | 3.73%         | 9.20%          | 13.80%        |
| 44                               | 6.81%          | 10.22%        | 2.52%          | 3.78%         | 9.33%          | 14.00%        |
| 45                               | 6.92%          | 10.38%        | 2.56%          | 3.84%         | 9.48%          | 14.22%        |
| 46                               | 7.03%          | 10.54%        | 2.60%          | 3.90%         | 9.63%          | 14.44%        |
| 47                               | 7.15%          | 10.72%        | 2.65%          | 3.97%         | 9.80%          | 14.69%        |
| 48                               | 7.27%          | 10.90%        | 2.69%          | 4.03%         | 9.96%          | 14.93%        |
| 49                               | 7.38%          | 11.07%        | 2.73%          | 4.10%         | 10.11%         | 15.17%        |
| 50                               | 7.49%          | 11.24%        | 2.77%          | 4.16%         | 10.26%         | 15.40%        |
| 51                               | 7.59%          | 11.38%        | 2.81%          | 4.21%         | 10.40%         | 15.59%        |
| 52                               | 7.66%          | 11.49%        | 2.83%          | 4.25%         | 10.49%         | 15.74%        |
| 53                               | 7.71%          | 11.56%        | 2.85%          | 4.28%         | 10.56%         | 15.84%        |
| 54                               | 7.71%          | 11.57%        | 2.85%          | 4.28%         | 10.56%         | 15.85%        |
| 55                               | 7.70%          | 11.55%        | 2.85%          | 4.27%         | 10.55%         | 15.82%        |
| 56                               | 7.67%          | 11.50%        | 2.84%          | 4.26%         | 10.51%         | 15.76%        |
| 57                               | 7.62%          | 11.43%        | 2.82%          | 4.23%         | 10.44%         | 15.66%        |
| 58                               | 7.85%          | 11.78%        | 2.91%          | 4.36%         | 10.76%         | 16.14%        |
| 59 & Over                        | 8.10%          | 12.15%        | 3.00%          | 4.50%         | 11.10%         | 16.65%        |

Interest: 6.50% per annum  
 COLA: 2.75%  
 Mortality: See Section 4, Exhibit 1  
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1)  
 COLA Loading Factor: 37.01%



## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

General Tier 4 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of eligible payroll)<sup>1</sup>

| Entry Age | General Tier 4 |       |
|-----------|----------------|-------|
|           | Eligible Pay   |       |
|           | Basic          | Total |
| All Ages  | 9.13%          | 9.13% |

|                      |  |
|----------------------|--|
| Interest:            | 6.50% per annum  |
| COLA:                | 0%   |
| Mortality:           | See Section 4, Exhibit 1   |
| Salary Increase:     | Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1) |
| COLA Loading Factor: | 0%   |

<sup>1</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2023 is equal to \$146,042. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$146,042, or \$175,250). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2023. (reference: Section 7522.10(d))

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Safety Tier 2 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll)

| Entry Age | Safety Tier 2  |               |                   |               |                |               |
|-----------|----------------|---------------|-------------------|---------------|----------------|---------------|
|           | Basic          |               | COLA <sup>1</sup> |               | Total          |               |
|           | First \$161.54 | Over \$161.54 | First \$161.54    | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 15        | 5.76%          | 8.64%         | 1.95%             | 3.74%         | 7.71%          | 12.38%        |
| 16        | 5.76%          | 8.64%         | 1.95%             | 3.74%         | 7.71%          | 12.38%        |
| 17        | 5.84%          | 8.76%         | 2.00%             | 3.82%         | 7.84%          | 12.58%        |
| 18        | 5.92%          | 8.88%         | 2.05%             | 3.89%         | 7.97%          | 12.77%        |
| 19        | 6.00%          | 9.00%         | 2.10%             | 3.97%         | 8.10%          | 12.97%        |
| 20        | 6.09%          | 9.13%         | 2.16%             | 4.05%         | 8.25%          | 13.18%        |
| 21        | 6.17%          | 9.26%         | 2.21%             | 4.13%         | 8.38%          | 13.39%        |
| 22        | 6.26%          | 9.39%         | 2.26%             | 4.21%         | 8.52%          | 13.60%        |
| 23        | 6.35%          | 9.52%         | 2.32%             | 4.29%         | 8.67%          | 13.81%        |
| 24        | 6.44%          | 9.66%         | 2.38%             | 4.38%         | 8.82%          | 14.04%        |
| 25        | 6.53%          | 9.79%         | 2.43%             | 4.46%         | 8.96%          | 14.25%        |
| 26        | 6.62%          | 9.93%         | 2.49%             | 4.55%         | 9.11%          | 14.48%        |
| 27        | 6.71%          | 10.07%        | 2.54%             | 4.63%         | 9.25%          | 14.70%        |
| 28        | 6.81%          | 10.21%        | 2.61%             | 4.72%         | 9.42%          | 14.93%        |
| 29        | 6.91%          | 10.36%        | 2.67%             | 4.81%         | 9.58%          | 15.17%        |
| 30        | 7.01%          | 10.51%        | 2.73%             | 4.91%         | 9.74%          | 15.42%        |
| 31        | 7.11%          | 10.66%        | 2.79%             | 5.00%         | 9.90%          | 15.66%        |
| 32        | 7.21%          | 10.82%        | 2.85%             | 5.10%         | 10.06%         | 15.92%        |
| 33        | 7.32%          | 10.98%        | 2.92%             | 5.20%         | 10.24%         | 16.18%        |
| 34        | 7.43%          | 11.14%        | 2.99%             | 5.30%         | 10.42%         | 16.44%        |
| 35        | 7.54%          | 11.31%        | 3.06%             | 5.40%         | 10.60%         | 16.71%        |
| 36        | 7.65%          | 11.48%        | 3.13%             | 5.51%         | 10.78%         | 16.99%        |
| 37        | 7.77%          | 11.65%        | 3.20%             | 5.62%         | 10.97%         | 17.27%        |
| 38        | 7.87%          | 11.81%        | 3.26%             | 5.71%         | 11.13%         | 17.52%        |
| 39        | 7.99%          | 11.99%        | 3.34%             | 5.83%         | 11.33%         | 17.82%        |

<sup>1</sup> COLA rate is offset by 1.63%, which is picked up by the County.

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Safety Tier 2 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll) (continued)

| Safety Tier 2 (continued) |                |               |                   |               |                |               |
|---------------------------|----------------|---------------|-------------------|---------------|----------------|---------------|
| Entry Age                 | Basic          |               | COLA <sup>1</sup> |               | Total          |               |
|                           | First \$161.54 | Over \$161.54 | First \$161.54    | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 40                        | 8.11%          | 12.16%        | 3.41%             | 5.93%         | 11.52%         | 18.09%        |
| 41                        | 8.21%          | 12.32%        | 3.48%             | 6.03%         | 11.69%         | 18.35%        |
| 42                        | 8.31%          | 12.46%        | 3.54%             | 6.12%         | 11.85%         | 18.58%        |
| 43                        | 8.37%          | 12.56%        | 3.58%             | 6.18%         | 11.95%         | 18.74%        |
| 44                        | 8.42%          | 12.63%        | 3.61%             | 6.22%         | 12.03%         | 18.85%        |
| 45                        | 8.43%          | 12.64%        | 3.61%             | 6.23%         | 12.04%         | 18.87%        |
| 46                        | 8.40%          | 12.60%        | 3.59%             | 6.21%         | 11.99%         | 18.81%        |
| 47                        | 8.34%          | 12.51%        | 3.56%             | 6.15%         | 11.90%         | 18.66%        |
| 48                        | 8.60%          | 12.90%        | 3.72%             | 6.39%         | 12.32%         | 19.29%        |
| 49 & Over                 | 8.87%          | 13.30%        | 3.89%             | 6.64%         | 12.76%         | 19.94%        |

Interest: 6.50% per annum  
 COLA: 2.75%  
 Mortality: See Section 4, Exhibit 1  
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1)  
 COLA Loading Factor: 62.19%

<sup>1</sup> COLA rate is offset by 1.63%, which is picked up by the County.

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Safety Tier 3 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of eligible payroll)<sup>1</sup>

| Entry Age | Safety Tier 3 |        |
|-----------|---------------|--------|
|           | Eligible Pay  |        |
|           | Basic         | Total  |
| All Ages  | 13.69%        | 13.69% |

|                      |  |
|----------------------|--|
| Interest:            | 6.50% per annum  |
| COLA:                | 0%   |
| Mortality:           | See Section 4, Exhibit 1   |
| Salary Increase:     | Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1) |
| COLA Loading Factor: | 0%   |

<sup>1</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2023 is equal to \$146,042. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$146,042, or \$175,250). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2023. (reference: Section 7522.10(d))

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Probation Tier 2 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll)

| Entry Age | Probation Tier 2 |               |                |               |                |               |
|-----------|------------------|---------------|----------------|---------------|----------------|---------------|
|           | Basic            |               | COLA           |               | Total          |               |
|           | First \$161.54   | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 15        | 5.76%            | 8.64%         | 3.05%          | 4.57%         | 8.81%          | 13.21%        |
| 16        | 5.76%            | 8.64%         | 3.05%          | 4.57%         | 8.81%          | 13.21%        |
| 17        | 5.84%            | 8.76%         | 3.09%          | 4.63%         | 8.93%          | 13.39%        |
| 18        | 5.92%            | 8.88%         | 3.13%          | 4.70%         | 9.05%          | 13.58%        |
| 19        | 6.00%            | 9.00%         | 3.17%          | 4.76%         | 9.17%          | 13.76%        |
| 20        | 6.09%            | 9.13%         | 3.22%          | 4.83%         | 9.31%          | 13.96%        |
| 21        | 6.17%            | 9.26%         | 3.27%          | 4.90%         | 9.44%          | 14.16%        |
| 22        | 6.26%            | 9.39%         | 3.31%          | 4.97%         | 9.57%          | 14.36%        |
| 23        | 6.35%            | 9.52%         | 3.36%          | 5.04%         | 9.71%          | 14.56%        |
| 24        | 6.44%            | 9.66%         | 3.41%          | 5.11%         | 9.85%          | 14.77%        |
| 25        | 6.53%            | 9.79%         | 3.45%          | 5.18%         | 9.98%          | 14.97%        |
| 26        | 6.62%            | 9.93%         | 3.50%          | 5.25%         | 10.12%         | 15.18%        |
| 27        | 6.71%            | 10.07%        | 3.55%          | 5.33%         | 10.26%         | 15.40%        |
| 28        | 6.81%            | 10.21%        | 3.60%          | 5.40%         | 10.41%         | 15.61%        |
| 29        | 6.91%            | 10.36%        | 3.65%          | 5.48%         | 10.56%         | 15.84%        |
| 30        | 7.01%            | 10.51%        | 3.71%          | 5.56%         | 10.72%         | 16.07%        |
| 31        | 7.11%            | 10.66%        | 3.76%          | 5.64%         | 10.87%         | 16.30%        |
| 32        | 7.21%            | 10.82%        | 3.81%          | 5.72%         | 11.02%         | 16.54%        |
| 33        | 7.32%            | 10.98%        | 3.87%          | 5.81%         | 11.19%         | 16.79%        |
| 34        | 7.43%            | 11.14%        | 3.93%          | 5.89%         | 11.36%         | 17.03%        |
| 35        | 7.54%            | 11.31%        | 3.99%          | 5.98%         | 11.53%         | 17.29%        |
| 36        | 7.65%            | 11.48%        | 4.05%          | 6.07%         | 11.70%         | 17.55%        |
| 37        | 7.77%            | 11.65%        | 4.11%          | 6.16%         | 11.88%         | 17.81%        |
| 38        | 7.87%            | 11.81%        | 4.17%          | 6.25%         | 12.04%         | 18.06%        |
| 39        | 7.99%            | 11.99%        | 4.23%          | 6.34%         | 12.22%         | 18.33%        |

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Probation Tier 2 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of biweekly payroll) (continued)

| Probation Tier 2 (continued) |                |               |                |               |                |               |
|------------------------------|----------------|---------------|----------------|---------------|----------------|---------------|
| Entry Age                    | Basic          |               | COLA           |               | Total          |               |
|                              | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 | First \$161.54 | Over \$161.54 |
| 40                           | 8.11%          | 12.16%        | 4.29%          | 6.43%         | 12.40%         | 18.59%        |
| 41                           | 8.21%          | 12.32%        | 4.35%          | 6.52%         | 12.56%         | 18.84%        |
| 42                           | 8.31%          | 12.46%        | 4.39%          | 6.59%         | 12.70%         | 19.05%        |
| 43                           | 8.37%          | 12.56%        | 4.43%          | 6.65%         | 12.80%         | 19.21%        |
| 44                           | 8.42%          | 12.63%        | 4.45%          | 6.68%         | 12.87%         | 19.31%        |
| 45                           | 8.43%          | 12.64%        | 4.46%          | 6.69%         | 12.89%         | 19.33%        |
| 46                           | 8.40%          | 12.60%        | 4.45%          | 6.67%         | 12.85%         | 19.27%        |
| 47                           | 8.34%          | 12.51%        | 4.41%          | 6.62%         | 12.75%         | 19.13%        |
| 48                           | 8.60%          | 12.90%        | 4.55%          | 6.83%         | 13.15%         | 19.73%        |
| 49 & Over                    | 8.87%          | 13.30%        | 4.69%          | 7.04%         | 13.56%         | 20.34%        |

Interest: 6.50% per annum  
 COLA: 2.75%  
 Mortality: See Section 4, Exhibit 1  
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1)  
 COLA Loading Factor: 52.91%

## Section 4: Actuarial Valuation Basis

### Exhibit 3: Member Contribution Rates (continued)

Probation Tier 3 Members' Contribution Rates Based on the June 30, 2023 Actuarial Valuation  
(as a % of eligible payroll)<sup>1</sup>

| Entry Age | Probation Tier 3 |        |
|-----------|------------------|--------|
|           | Eligible Pay     |        |
|           | Basic            | Total  |
| All Ages  | 13.40%           | 13.40% |

Interest: 6.50% per annum  
 COLA: 0%  
 Mortality: See Section 4, Exhibit 1  
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, Exhibit 1)  
 COLA Loading Factor: 0%

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<sup>1</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2023 is equal to \$146,042. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$146,042, or \$175,250). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2023. (reference: Section 7522.10(d))