Marin County Employees' Retirement Association
Actuarial Review and Analysis as of June 30, 2023
City of San Rafael

Valuation Date	**June 30, 2022**		**June 30, 2023**	
Actuarial Liability	$654.6 M	Funded Ratio	$686.3 M	Funded Ratio
Market Value of Valuation Assets	$546.5 M	83.5%	$570.6 M	83.1%
Unfunded Actuarial Liability	$108.1 M		$115.8 M	
Inactive Actuarial Liability	$525.9 M		$554.9 M	
Portion Covered by Market Value of Valuation Assets	100.0%		100.0%	
Employer Normal Cost	15.49%		14.81%	
Amortization of Unfunded Liability	38.57%		38.50%	
Administrative Expense Rate	2.70%		2.52%	
Total Employer Rate	56.76%		55.83%	
Average Employee Rate	13.01%		12.99%	
Final Total Rate	69.77%		68.82%	

Changes from Prior Year:

- Overall, the employer portion of Plan cost decreased from 56.76% to 55.83% of active member payroll.
  - Asset experience produced an investment gain, which decreased the contribution rate by 0.12% of pay.
  - Demographic experience for San Rafael, including higher-than-expected COLAs, resulted in a loss, increasing the contribution rate for San Rafael by 0.67%.
  - PEPRA new hires make up a growing proportion of the active population and generally contribute a larger share of their cost, decreasing the contribution rate by 0.28%.
  - Salary increases for returning employees were close to expectations, increasing the contribution rate by 0.01% of pay.
  - Overall payroll, which includes the pay for new hires, increased more than expected. This resulted in the UAL being amortized over a larger than expected payroll base, which decreased the contribution rate by 0.85%.
  - Demographic assumptions changed, including adjustments to retirement and termination rates, as well as merit salary increases, decreasing the contribution rate by 0.37% for San Rafael.
  - There was an expected change in the amortization rate due to the phase-in of prior UAL gains, losses, and assumption changes. This increased the contribution rate by 0.53%. There was an expected change in the amortization rate due to the phase-in of prior UAL gains, losses, and assumption changes. This increased the contribution rate by 0.53%.

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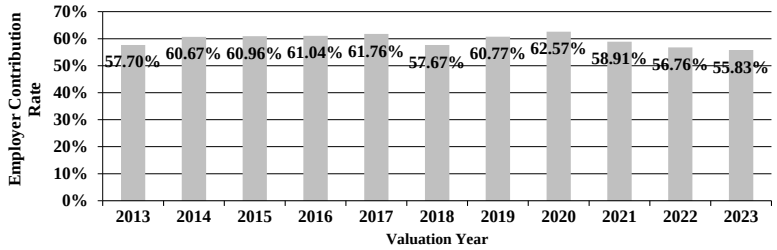
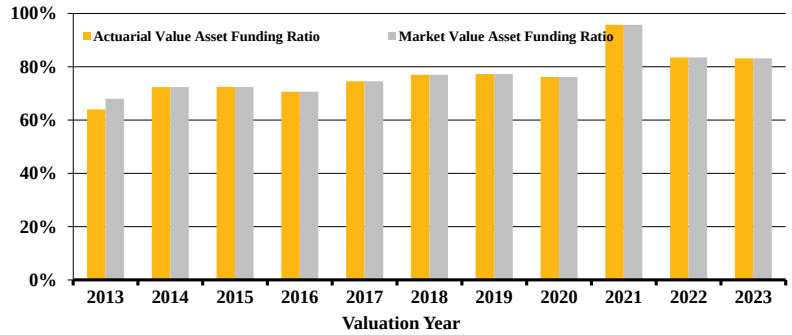
Employer Contribution Rate as a Percentage of Member Payroll



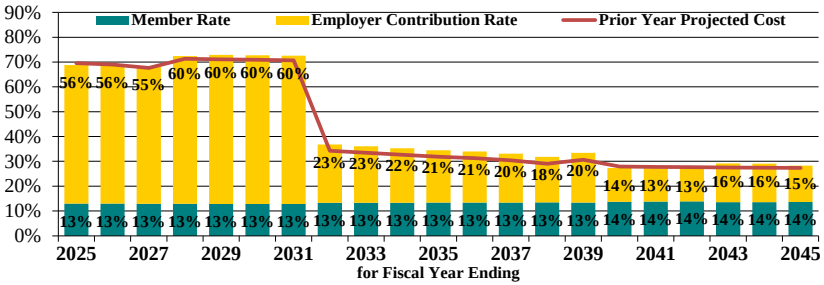
Net investment gains and growth in the PEPRA population over the past few years have decreased the employer rate.

Plan Funded Ratios



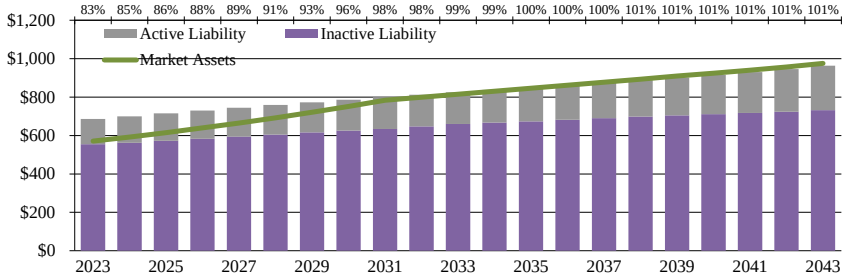
The above graph shows the funded ratio, both at Market and Actuarial Value of Assets. Beginning in 2014, the Actuarial Value of Assets is equal to the market value. The 2023 funded ratio of 83.1% is more than 19% higher than the 2013 funded ratio of 64.0% despite being calculated under significantly more conservative assumptions.

Projection of Employer Cost as a Percentage of Member Payroll



Provided assumptions are met, contribution rates are expected to fluctuate over the next three years as the significant 2021 investment gain and 2022 investment loss are phased-in. A large reduction in the employer rate is projected in FYE 2032 as the original UAL base is fully amortized. A moderate long-term decline is projected as the PEPRA population continues to grow.

Projection of Funded Ratio Based on Actuarial Liability



Provided assumptions are met, the funded ratio (shown by the numbers along the top of the graph) will improve as the remainder of the initial unfunded liability and extraordinary loss from FYE 2009 are paid off. This graph and the prior graph assume a 7-year amortization period for the bulk of the UAL.

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Sensitivity Analysis:	2023 Baseline	+1%	-1%
Expected Long-Term Rate of Return	6.75%	7.75%	5.75%
Employer Cost	55.83%	39.34%	73.97%
Funding Ratio	83.1%	92.8%	73.8%

Investment Earnings:	FY 2022	FY 2023
Market Value	(8.6%)	7.0%
Expected	6.75%	6.75%

Projected Payroll:	FY 2023	FY 2024
Total	$36.3 M	$38.0 M

Projected Employer Contribution:	FY 2024	FY 2025
Total Employer Rate	56.76%	55.83%
Projected Covered Payroll	$37.3 M	$39.0 M
Expected Employer Contribution	$21.2 M	$21.8 M

Beginning in 2014, the Market and Actuarial Value of Assets are the same.

The employer costs in the sensitivity analysis are calculated assuming that the change in UAL due to the discount rate change is amortized over a 20-year period as a level percent of payroll with no phase-in/out.

Actuarial Cost Method	Entry Age Normal to Final Decrement (GASB 67/68 compliant)
Amortization Method	Level % of pay; closed.
Remaining Amortization Period	Initial (2013) layer: 17 years fixed (7 years remaining as of June 30, 2023).
	Half of the extraordinary asset loss from FY 2009 is being amortized as a level percentage of payroll over a closed 30-year period, with 15 years remaining as of June 30, 2023.
	Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a 5-year phase-in/out (3 years for assumption changes) of the payments/credits for each annual layer.
Asset Valuation Method	As of the June 30, 2014 valuation, assets are valued using the market value. The assets used to compute the UAL are the Market Value of Assets, minus the value of any non-valuation contingency reserves.

Actuarial Economic Assumptions:	
Long-Term Inflation Rate	2.50%
Real Rate of Return	4.25%
Nominal Rate of Return	6.75% (net of investment, but not administrative, expenses)
Projected Salary Increases	3.52% – 9.18%
Wage Inflation	3.00%
Payroll Growth	2.75%

Disclaimers: This exhibit is intended to summarize the information presented in the June 30, 2023 Actuarial Valuation Report for MCERA. In preparing our valuation, we relied on information (some oral and some written) supplied by MCERA Staff. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. This exhibit was prepared exclusively for MCERA for the purpose described herein. Other users of this exhibit are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user. This exhibit and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this exhibit. This exhibit does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice. Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal, have a basic understanding of it, and have used it in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report. The deterministic projections shown in this report were developed using R-scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. The projections use standard roll-forward techniques that implicitly assume a stable active population. Changes in the demographic characteristics of the active population will lead to different results. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.