

**Marin County Employees' Retirement Association
Actuarial Review and Analysis as of June 30, 2012
Novato Fire Protection District**

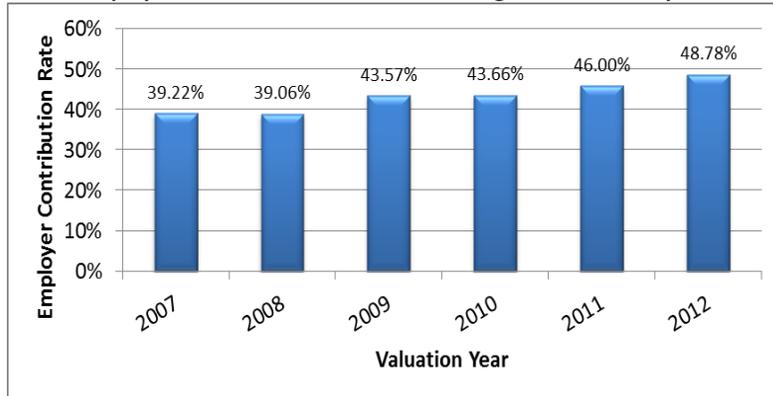
Valuation Date	June 30, 2011		June 30, 2012	
Actuarial Accrued Liability	\$136.4 M	<u>Funded Ratio</u>	\$143.1 M	<u>Funded Ratio</u>
Actuarial Value of Valuation Assets	\$106.1 M	77.8%	\$109.1 M	76.3%
Market Value of Valuation Assets	\$108.3 M	79.4%	\$109.6 M	76.6%
Unfunded Actuarial Accrued Liability	\$30.3 M		\$33.9 M	
Inactive Actuarial Liability	\$90.1 M		\$95.4 M	
Portion Covered by Market Value of Valuation Assets	100.0%		100.0%	
Employer Normal Cost	23.03%		22.19%	
Amortization of Unfunded Liability	<u>22.97%</u>		<u>26.59%</u>	
Total Employer Rate	46.00%		48.78%	
Average Employee Rate	<u>13.34%</u>		<u>13.66%</u>	
Total Contribution Rate	59.34%		62.44%	

Changes from Prior Year:

- No changes were made in actuarial methods and assumptions; there were no changes in benefits or plan provisions.
- Overall, the Plan cost increased from 46.00% to 48.78% of active member payroll.
 - The demographic experience of the Plan – retirements, disabilities, terminations, deaths, and new entrants – was positive: Plan cost decreased by 2.18% from these causes.
 - Payroll for returning members grew at more than the expected rate, but overall payroll increased by less than the assumed rate (3.25%), which increased the amortization payment as a percentage of pay. These factors increased Plan cost by 1.73% of payroll.
 - Investment experience was slightly negative, with a 1.6% market return offset by the ongoing recognition of recent asset gains, yielding a 3.3% return on the actuarial value of assets and increasing plan cost by 4.12% of pay.
 - Keeping the amortization period at 17 years rather than reducing it yearly reduced cost by 0.71% of pay.
 - Minor changes were made to employee contribution rates and active death benefits following an actuarial audit by Milliman. This resulted in a 0.18% decrease in plan cost.

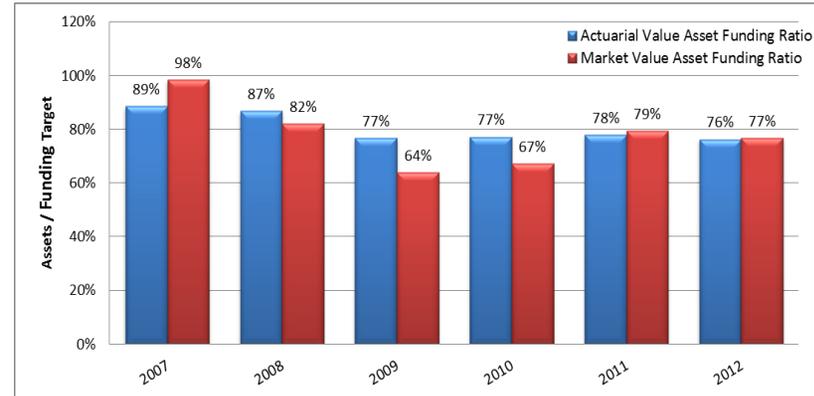
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Employer Contribution Rate as a Percentage of Member Payroll



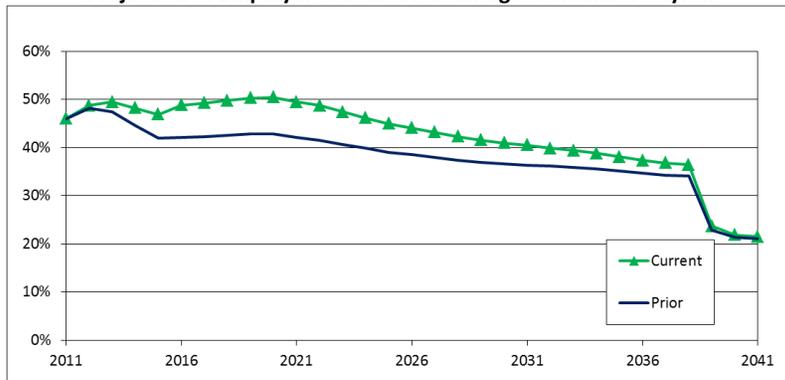
The employer contribution rate increased in fiscal 2009 due principally to poor investment returns. Recent changes in actuarial assumptions, reductions in active payroll and other demographic losses have also increased the employer rate.

Plan Funded Ratios



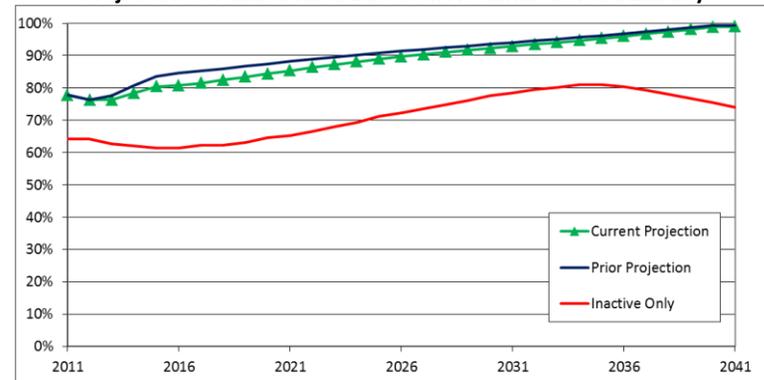
The above graph shows the funded ratio, both at market and actuarial value of assets. Funded ratios have trended down since 2007, due to investment performance and changes in actuarial assumptions.

Projection of Employer Cost as a Percentage of Member Payroll



Cost is expected to remain relatively flat over the next few years as a mix of deferred investment losses and gains from the last four years are recognized. The sudden large decline in the actuarial cost at the end of the projection is due to the end of the amortization period for the extraordinary loss from FY 2009.

Projection of Funded Ratio Based on Actuarial Accrued Liability



The funded ratio will improve as the unfunded liability and extraordinary loss are paid off, provided all actuarial assumptions are met. This graph and the prior graph assume a 17 year amortization period for the non-extraordinary UAL for next year that declines to an ultimate period of 10 years in 2020.

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	2012 <u>Baseline</u>	<u>+1%</u>	<u>-1%</u>
Sensitivity Analysis:			
Employer Cost	48.78%	36.28%	64.52%
Funding Ratio	76.27%	86.38%	66.74%
Expected Return	7.50%	8.50%	6.50%

Investment Earnings:	<u>FY 2011</u>	<u>FY 2012</u>
Market Value	23.4%	1.6%
Actuarial Value	5.3%	3.3%
Expected	7.75%	7.50%
Unrecognized Gain (Loss)	\$ 2.2 M	\$ 0.5 M

Covered Payroll:	<u>FY 2012</u>	<u>FY 2013</u>
Total	\$9.4 M	\$9.3 M

Projected Employer Contribution:	<u>FY 2013</u>	<u>FY 2014</u>
Total Employer Rate	46.00%	48.78%
Expected Covered Payroll	\$9.7 M	\$9.6 M
Expected Employer Contribution	\$4.5 M	\$4.7 M

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Actuarial Cost Method	Entry Age Normal to Final Decrement
Amortization Method	Level % of pay; closed.
Remaining Amortization Period	17 years for the next two valuations, after which the period will descend by one year each year to an ultimate period of ten years. Half of the extraordinary asset loss from FY09 is being amortized as a level percentage of payroll over a closed 30 year period, with 27 years remaining as of June 30, 2012. Any extraordinary gains occurring during this period will first be used to offset the FY 2009 loss; any excess will be amortized over a similar long period of time, such as 30 years.
Asset Valuation Method	5 Year smoothing; each year's gain and loss recognized over a closed five-year period; Actuarial value not less than 80% and not greater than 120% of market value. Valuation Assets exclude special Non-Valuation Reserves and contingency reserve.
Actuarial Economic Assumptions:	
Long-Term Inflation Rate	3.25%
Real Rate of Return	4.25%
Nominal Rate of Return	7.50%
Projected Salary Increases	3.75% - 8.25%
Cost-of-Living Adjustments	3.25%

Disclaimers: This exhibit is intended to summarize the information presented in the June 20th, 2012 Actuarial Valuation Report for MCERA. This exhibit is not intended to benefit any third party, and Cheiron-EFI assumes no duty or liability to any such party. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.