

Marin County Employees' Retirement Association

Actuarial Valuation Report as of June 30, 2017

Produced by Cheiron

March 2018

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Letter of Transmittal	i
Section I Executive Summary	1
Section II Assets	15
Section III Liabilities	21
Section IV Contributions.....	24
 <u>Appendices</u>	
Appendix A Membership Information	33
Appendix B Statement of Current Actuarial Assumptions and Methods	76
Appendix C Summary of Plan Provisions.....	85
Appendix D Glossary	99
Appendix E Member Contribution Rates.....	101

February 7, 2018

Board of Retirement
Marin County Employees' Retirement Association
1 McInnis Parkway, Suite 100
San Rafael, CA 94903-2764

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Marin County Employees' Retirement Association (MCERA, the Plan) as of June 30, 2017. The purpose of this report is to present the results of the annual actuarial valuation of MCERA, including information on the Plan's assets and liabilities and the development of employer and employee contribution rates for the fiscal year beginning July 1, 2018.

This report was prepared for MCERA for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

In preparing our report, we relied on information supplied by the MCERA staff. This information includes, but is not limited to, 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.

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. 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.

Sincerely,
Cheiron

A handwritten signature in blue ink, reading "Graham Schmidt".

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary

A handwritten signature in blue ink, reading "William R. Hallmark".

William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The funded status of the Plan,
- Past and expected trends in the funding progress of the Plan, and
- Employer and employee contribution rates for Plan Year 2018-2019.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key results, (C) an examination of the historical trends, and (D) the projected outlook for the Plan.

A. Valuation Basis

This valuation determines the employer contributions required for the employers' fiscal years beginning July 1, 2018. The employers are divided into three subgroups: the County of Marin and related Special Districts, the Novato Fire Protection District, and the City of San Rafael.

The Plan's funding policy is to collect contributions from the employers and employees equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- An amortization payment on the Unfunded Actuarial Liability (UAL), and
- The Plan's expected administrative expenses.

Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period (13 years remaining as of June 30, 2017), except for the additional UAL attributable to the outstanding unfunded actuarial loss from 2009, which is being amortized over a separate closed period (currently 21 years).

Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses or method changes are amortized over a closed 24-year period, with a five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll between the ramping periods. This new amortization method for gains and losses is similar to a 20-year amortization period with level payments as a percentage of payroll, in conjunction with traditional five-year asset smoothing.

Assumption changes are amortized over a closed 22-year period, with a three-year ramp up period, two-year ramp down period, and 17 years of level payments as a percentage of payroll.

This valuation was prepared based on the Plan provisions shown in Appendix C. There have been changes in assumptions since the prior valuation as the result of an Experience Study

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

covering the three-year period from July 1, 2014 through June 30, 2017. A summary of the assumptions used in the current valuation is shown in Appendix B.

This valuation does not include any consideration of external liabilities (or related debt service payments) incurred by the Plan sponsors outside of MCERA, such as those related to pension obligation bonds.

Key Findings of this Valuation

Tables I-1 and I-2 below summarize the key results of the valuation with respect to assets and liabilities for the Plan as a whole, contributions by the main valuation subgroups, and overall membership. The tables compare the results for the current plan year to the results for the prior plan year.

Table I-1 Marin County Employees' Retirement Association Summary of Key Valuation Results (in millions)			
Valuation Date	Before Changes		After Changes
	June 30, 2016	June 30, 2017	June 30, 2017
Actuarial Liability	\$ 2,575.8	\$ 2,681.8	\$ 2,722.6
Market Value of Valuation Assets	2,098.7	2,298.9	2,298.9
Unfunded Actuarial Liability	\$ 477.1	\$ 382.9	\$ 423.7
Funded Ratio	81.5%	85.7%	84.4%
Net Employer Contribution Rate			
County of Marin	26.13%	24.34%	25.32%
Novato Fire Protection District	48.06%	45.75%	49.05%
City of San Rafael	61.04%	60.93%	61.76%
Total MCERA	31.81%	29.97%	31.12%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

Table I-2 Membership Total			
Item	June 30, 2016	June 30, 2017	% Change
Actives	2,677	2,685	0.3%
Current Inactives	658	668	1.5%
Retired Members	<u>3,057</u>	<u>3,141</u>	<u>2.7%</u>
Total Members	6,392	6,494	1.6%
Ratio of Retired Members to Active Members	114.2%	117.0%	
Active Member Payroll (FYE 2017/2018)	\$ 244,222,469	\$ 249,751,675	2.3%
Average Pay per Active	\$ 91,230	\$ 93,017	2.0%

The key results of the June 30, 2017 actuarial valuation are as follows:

- The actuarially determined employer contribution rate for the County decreased from 26.13% to 25.32% of payroll. However, the actuarially determined employer contribution rate increased for Novato from 48.06% to 49.05%, and San Rafael from 61.04% to 61.76%.
- Although the Actuarial Liability increased due to assumption changes from the recent experience study (particularly the reduction in the discount rate from 7.25% to 7.00%), the resulting contribution increases were partially offset by contribution rate decreases from the phase-in of prior experience gains, investment gains, and PEPRAs new hires.
- As a result of higher than expected investment returns, the Plan's funded ratio, the ratio of assets over Actuarial Liability, increased from 81.5% last year to 84.4% as of June 30, 2017.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Market Value of Assets. The UAL decreased from \$477.1 to \$382.9 million, before reflecting any assumption changes. This decrease in UAL was primarily due to higher than expected investment returns.
- The assumption changes increased the UAL \$40.8 million, from \$382.9 to \$423.7 million.
- During the year ending June 30, 2017, the return on Plan assets was 11.92% net of investment expenses, as compared to the prior year's assumption of 7.25%. Our calculation of this rate of return assumes that external cash flows (i.e., benefit payments, contributions, and administrative expenses) all occur on average mid-year. The use of this simplifying assumption may result in a return that is slightly different from that provided by the investment consultant.
- Overall Plan membership and the number of active members increased compared to last year. There were 262 new hires and rehires during 2016-2017 and the total active

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

population increased from 2,677 to 2,685. The number of members in pay status and deferred status increased from 3,715 to 3,809. Total projected payroll increased from \$244.2 million to \$249.8 million.

Assets and Liabilities

Table I-3 below presents the assets, liabilities, Unfunded Actuarial Liability, and funding ratios as of June 30, 2017 for each of the three main subgroups.

Table I-3 Assets & Liabilities (in millions)			
Item	County	Novato	San Rafael
Actuarial Liability			
Actives	\$ 672.9	\$ 60.9	\$ 137.1
Current Inactives	78.1	3.0	20.1
Retired Members	1,230.7	119.5	400.4
Total Actuarial Liability	\$ 1,981.7	\$ 183.3	\$ 557.6
Market Value Assets	\$ 1,719.9	\$ 163.3	\$ 415.7
Unfunded Actuarial Liability	\$ 261.8	\$ 20.1	\$ 141.8
Funded Ratio - Market Value	86.8%	89.1%	74.6%
Inactive-Only Funded Ratio	66.0%	66.8%	75.4%

The Inactive-Only Funded Ratio shown in Table I-3 represents the percentage of the Actuarial Liability attributable to members who are not active employees. A funded ratio of 66.0% or more is required just to fund the liabilities of the inactive County members: those currently retired, disabled, terminated with vested benefits, and their beneficiaries. We note that the funded ratio for San Rafael remains slightly below the Inactive-Only Funded Ratio for the current valuation.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

Changes in Employer Contributions

Table I-4 summarizes the impact of actuarial experience and other changes on the employer contribution rate.

Table I-4				
Employer Contribution Reconciliation				
Item	Total	County	Novato	San Rafael
FYE 2018 Net Employer Contribution Rate	31.81%	26.13%	48.06%	61.04%
Expected change in amortization from prior changes	(1.19%)	(1.10%)	(2.39%)	(1.45%)
Change due to asset gain	(0.50%)	(0.42%)	(1.05%)	(0.79%)
Change due to demographic (gains)/losses	(0.01%)	(0.11%)	0.06%	0.47%
Change due to PEPRA new hires	(0.20%)	(0.11%)	(0.02%)	(0.23%)
Change due to salary gains	(0.06%)	(0.02%)	(0.27%)	(0.23%)
Change due to effect of payroll on amortization	0.12%	(0.03%)	1.36%	2.12%
Change due to assumption changes	1.60%	1.35%	4.67%	1.55%
Change due to new employee contribution rates	<u>(0.45%)</u>	<u>(0.37%)</u>	<u>(1.37%)</u>	<u>(0.72%)</u>
Total change from current year's changes	0.50%	0.29%	3.38%	2.17%
FYE 2019 Net Employer Contribution Rate	31.12%	25.32%	49.05%	61.76%

Before adjusting for Plan experience during the year, there was an expected change in amortization due to the phase-in of prior UAL gains, losses, and assumption changes. This reduced the contribution rates by 1.10%, 2.39%, and 1.45% for County, Novato, and San Rafael, respectively.

Plan experience during the year – including demographic and salary changes, as well as asset experience – resulted in a net decrease in the overall employer contribution rate of 0.65% of pay (the total of the first five rows in the table above) before changes in assumptions are taken into account:

- Asset experience produced an investment gain.

The 11.92% return, compared to last year's 7.25% assumption, resulted in a gain that reduced the contribution rate by 0.50% of pay in the current year. The amortization payment for this year's investment gains will be phased-in over five years, resulting in similar decreases in the employer contribution rates in each of the next four years.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

- Demographic experience was close to what was expected for all three groups.

The demographic experience of the Plan – rates of retirement, death, disability, and termination – was close to that predicted by the actuarial assumptions in aggregate. There was a small decrease in contribution rate for the County (0.11%), and there were small increases in contribution rates for Novato (0.06%) and San Rafael (0.47%) due to changes in population.

The increases to the San Rafael rates were primarily driven by an increase in the average employer normal cost rates for the current tiers, based on an influx of new non-PEPRA members with higher entry ages (i.e. members with reciprocal service with another agency or employer. As with the investment gains, the amortization payment of the unfunded liability component of these gains and losses will be phased-in over five years, resulting in similar changes in the employer contribution rates in each of the next four years.

- PEPRA new hires reduced the contribution rates.

PEPRA members make up a growing proportion of the active member population, and they generally contribute a larger share of their cost. PEPRA new hires decreased the contribution rate by 0.20%. As these changes only affect the normal cost, they are not subject to further phase-in.

- Changes in salaries and payroll reduced the contribution rates.

Liability-weighted salary increases for returning members were lower than anticipated for all three groups, reducing the contribution rates by 0.02% of pay for County, 0.27% for Novato and 0.23% for San Rafael. The amortization of these gains will be phased-in over five years, resulting in similar reductions in the contribution rate for each of the next four years.

In addition, the higher than expected overall payroll growth for County as a result of increases in the active population meant that the UAL is being amortized over a larger than expected payroll base, which further decreased the contribution rate by 0.03%. The lower than expected overall payroll growth for Novato and San Rafael meant that the UAL is being amortized over a smaller than expected payroll base, which increased the contribution rate by 1.36% and 2.12%, respectively. The changes in payroll do not affect the dollar amount of the unfunded liability payments, and therefore are not subject to further phase-in.

The net impact of salaries and payroll was a reduction in the current year contribution rate of 0.05% for County and an increase in the current year contribution rates by 1.09% for Novato, and 1.89% for San Rafael.

- Changes in assumptions increased the County's contribution rate.

Demographic and economic assumptions changed, including a decrease in the discount rate (7.00%). Other changes included modifications to the service retirement rates, changes to the disability and termination rates, and adjustments to the merit salary scale

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

increases. These changes increased the contribution rate by 1.35% of pay for the County, 4.67% for Novato and 1.55% for San Rafael. These changes also resulted in increased employee contribution rates, by 0.37%, 1.37%, and 0.72% for the County, Novato, and San Rafael, respectively. The net impact on the employer rates was a 0.98%, 3.30%, and 0.83% increase for the County, Novato, and San Rafael, respectively.

Changes in UAL

The Unfunded Actuarial Liability (UAL) for MCERA decreased by \$53.4 million, from \$477.1 million to \$423.7 million. Table I-5 below presents the specific components of the change in the UAL.

Table I-5 Change in Unfunded Actuarial Liability (in millions)				
Experience	Total	County	Novato	San Rafael
1. Unfunded actuarial liability, 6/30/2016	\$ 477.1	\$ 297.1	\$ 23.9	\$ 156.1
2. Expected change in unfunded actuarial liability	(8.2)	(4.8)	(0.5)	(3.0)
3. Change due to unexpected contributions	(8.3)	(7.1)	(0.3)	(0.9)
4. Change due to investment gain	(79.9)	(55.7)	(6.5)	(17.7)
5. Change due to demographic (gains) / losses	11.3	7.3	0.5	3.5
6. Change due to salary (gains) / losses	(9.1)	(2.4)	(1.6)	(5.0)
7. Change due to assumption changes	40.8	27.4	4.6	8.8
8. Total change in unfunded actuarial liability	\$ (53.4)	\$ (35.3)	\$ (3.8)	\$ (14.3)
9. Unfunded actuarial liability, 6/30/2017	\$ 423.7	\$ 261.8	\$ 20.1	\$ 141.8

The overall dollar amount of contributions was slightly higher than expected, based on differences in actual versus projected payroll and the one-year delay in the implementation of contribution rates, which reduced the UAL by \$8.3 million (row 3). The return on the assets used to compute the UAL and the employer contribution rates was 11.92% during the 2016-17 plan year compared to last year's assumed rate of 7.25%, resulting in a decrease in the UAL of \$79.9 million (row 4). Liability experience (rows 5 and 6 above) – from salary gains offset by other liability losses – increased the UAL by \$2.3 million. The changes in assumptions as a result of an Experience Study increased the overall UAL by \$40.8 million as of the end of the year (row 7). All of the above combined with the expected UAL reduction (\$8.2 million) from contributions produced an overall decrease of \$53.4 million in the UAL last year.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

Plan Risk

One of the most important measures of a plan's risk is the ratio of plan assets to payroll. Table I-6 shows the ratios of assets to active member payroll for each of the three main subgroups within MCERA.

Table I-6			
Asset to Payroll Ratio as of June 30, 2017			
	County	Novato	San Rafael
Active Member Payroll	\$ 207,486,018	\$ 9,108,212	\$ 33,157,445
Assets (Market Value)	\$ 1,719,856,571	\$ 163,285,073	\$ 415,746,275
Ratio of Assets to Payroll	8.29	17.93	12.54
Ratio with 100% Funding	9.55	20.13	16.82

This ratio indicates the sensitivity of the Plan to the returns earned on assets. We note in the table that assets are currently over eight times covered payroll for the County; the ratio is nearly 13 for San Rafael, and nearly 18 for Novato. As funding improves and the Plan reaches 100% funding, the ratio of assets to payroll will increase: to nearly ten times payroll for the County, nearly 17 for San Rafael, and over 20 for Novato.

To appreciate the impact of the ratio of assets to payroll on the contribution rate, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the assets are so small.

On the other hand, consider the situation for the County. Suppose MCERA's assets lose 10% of their value in a year. Since they were assumed to earn 7.00%, there is an actuarial loss of 17.00% of plan assets. Based on the current ratio of assets to payroll (829%) for the County, that means the loss in assets is about 141% of active County payroll (829% of the 17.00% loss).

There is only one source of funding to make up for this loss: contributions. Consequently, barring future offsetting investment gains, the County employers would have to make up the asset loss in future contributions. In this example of a one-year loss of 10%, this shortfall will eventually require an average additional amortization payment of approximately 9.1% of payroll if amortized over a 24-year period.

As the plan matures and becomes better funded, the ratio of assets to payroll will increase. When assets are 955% of pay for the County, the 10% loss discussed above will translate to a loss of 162% of payroll, which when amortized over a 24-year period will increase the employer contribution rate by 10.5% of member pay on average. Therefore, the plan is likely to become more sensitive to market variation in the future than it is today.

The expected contribution volatility is higher for San Rafael and Novato, due to their higher relative number of Safety members, who receive higher benefits relative to their payroll. A 10% loss for San Rafael would currently translate to a loss of 213% of pay, which would require an

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

average of a 13.8% amortization payment. The same loss for Novato would translate to a loss of 305% of pay, requiring a 19.7% of pay average payment. If the Plan were fully funded, these losses would result in amortization payments of 18.4% and 22.1% for San Rafael and Novato, respectively.

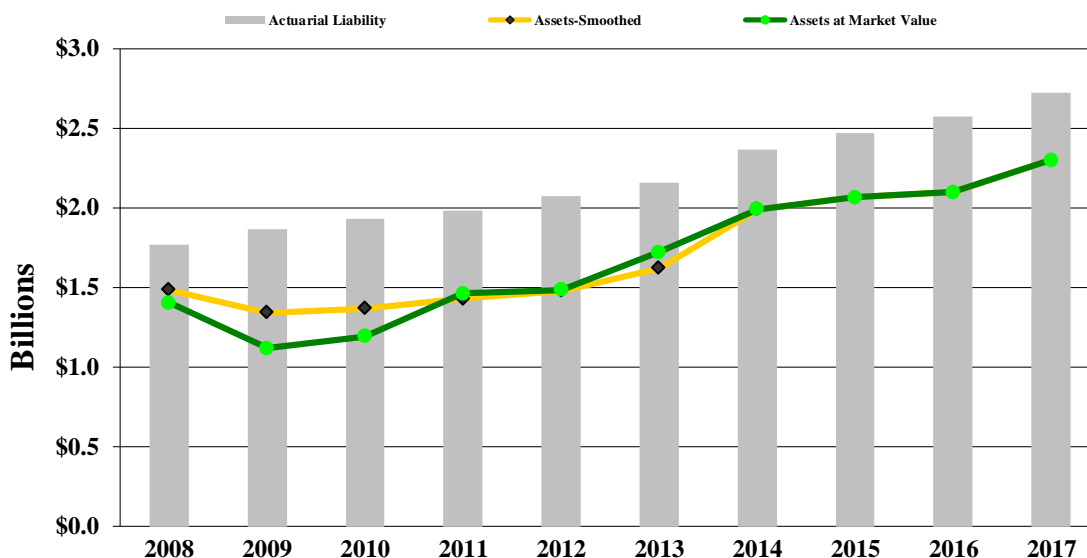
B. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension plan. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liability for the overall MCERA Plan. The percentage shown in the table below the graph is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio is 84.4% as of June 30, 2017, and is slightly higher than the 84.0% funded ratio in 2008.

Chart I-1: Assets and Actuarial Liabilities



Valuation Year	2008	2009	2010	2011	2012	2013	2014*	2015	2016	2017
Funded Ratio	84.0%	72.1%	70.9%	72.1%	71.3%	75.1%	84.3%	83.7%	81.5%	84.4%
UAL (Billions)	\$ 0.28	\$ 0.52	\$ 0.56	\$ 0.55	\$ 0.59	\$ 0.54	\$ 0.37	\$ 0.40	\$ 0.48	\$ 0.42

* Beginning in 2014, there is no smoothing of the asset value, thus AVA = MVA.

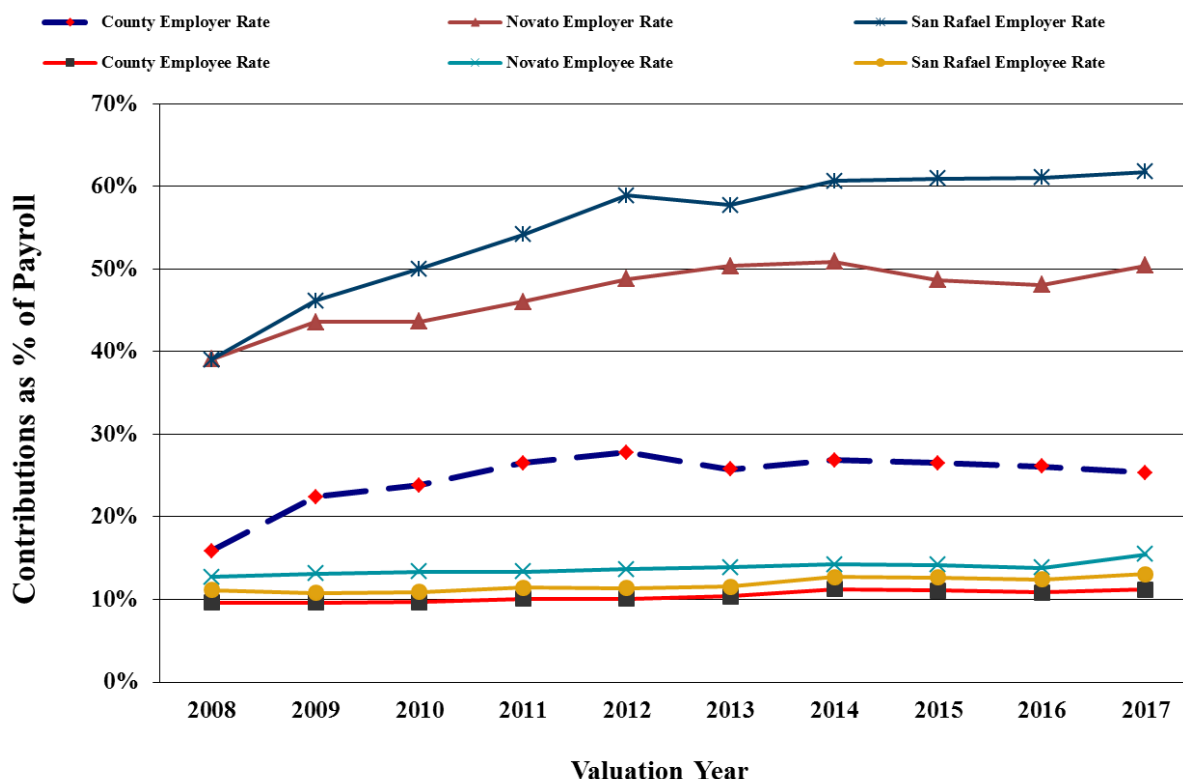
MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017

SECTION I – EXECUTIVE SUMMARY

Contribution Trends

Chart I-2 presents the historical trends for the MCERA contribution rates. The employer contribution rates rose steadily from 2008 through 2013, as the investment losses from 2008-2009 were recognized in the smoothed value of assets. The average employee contribution rates have stayed relatively stable, increasing slightly as the Plan's economic and mortality assumptions have changed.

Chart I-2: Marin County Employees' Retirement Association



Gains and Losses

The following chart for MCERA presents the pattern of annual gains and losses for the overall Plan, broken into the investment and liability components. Prior to 2014 the investment gains and losses represent the changes on a smoothed basis (i.e., based on the Actuarial Value of Assets). As of 2014, the Actuarial Value of Assets was set equal to the Market Value of Assets, and the 2013-14 and later years' investment gains and losses represent changes on an actual basis. The chart does not include any changes in MCERA's assets and liabilities attributable to changes to actuarial methods, assumptions, or plan benefit changes.

The investment loss in 2008-2009 was by far the most significant gain or loss during the last eight years. Even though the Plan was using actuarial smoothing of the assets, there was a significant loss reflected in the June 30, 2009 valuation, because the amount of smoothing was

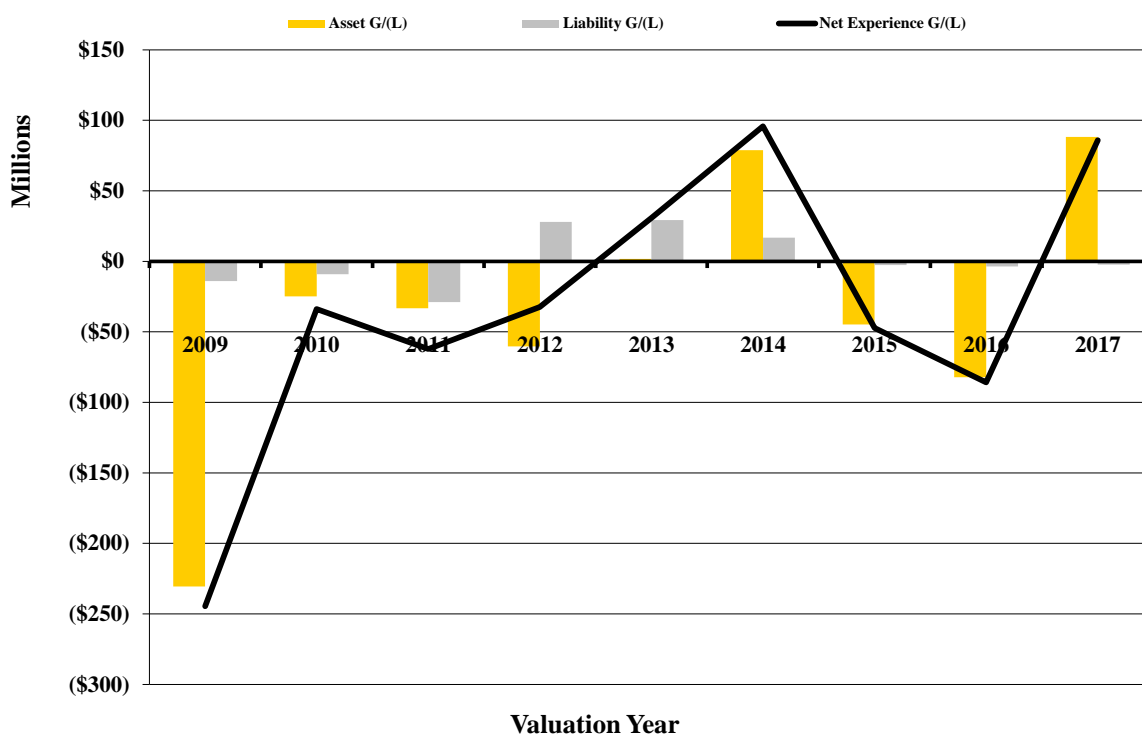
**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

limited by the 80/120% corridor around the Market Value of Assets (the return on the smoothed value of assets for 2008-2009 was -9.2%).

Between 2011 and 2014, there was a period of modest liability gains, as salary increases were below their expected levels. There have been small liability losses the past three years due to population changes.

Chart I-3: Experience Gains and Losses



C. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this section, we present our assessment of the implications of the June 30, 2017 valuation results in terms of contributions and benefit security (assets over liabilities). All the projections in this section are based on the current investment return assumption of 7.00% and future base salary increases of 3.00% per year.

The following graphs show the expected employer contribution rates based on achieving the 7.00% assumption **each year** for the next 20 years. This scenario is highly unlikely: even if the Plan does achieve an **average** return of 7.00% over this time period, the returns in each given year will certainly vary.

The contribution rate graphs which follow – shown separately for the County, Novato, and San Rafael - project that employer contribution rates are expected to gradually decline through 2029,

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017

SECTION I – EXECUTIVE SUMMARY

as the bulk of the current unfunded liability is amortized over this period as a level percentage of payroll. A significant reduction in contribution rates is projected in 2030.

There is a small short-term reduction in rates projected, as the deferred investment gains from prior years are recognized. There is also a moderate longer-term decline projected in the employer normal cost rates, primarily due to the PEPPA members becoming a larger proportion of the active member population over time.

Chart I-4: Projection of Contributions, 7.00% Return Each Year – County of Marin

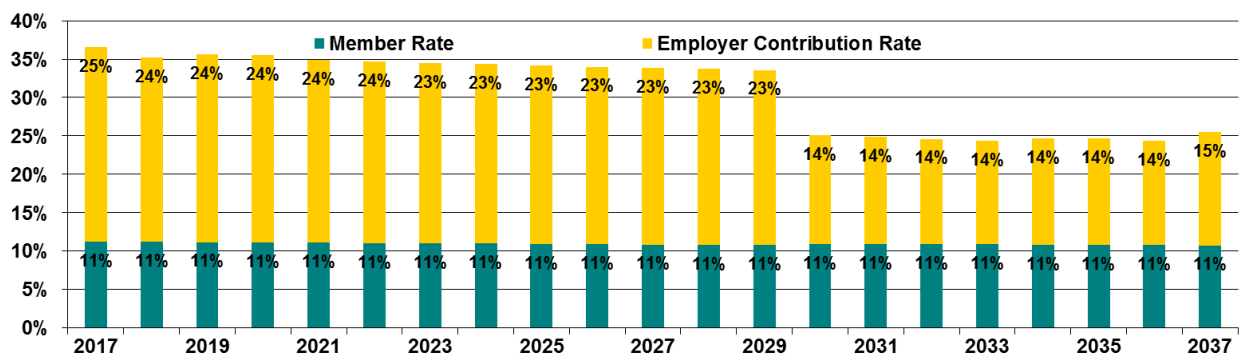
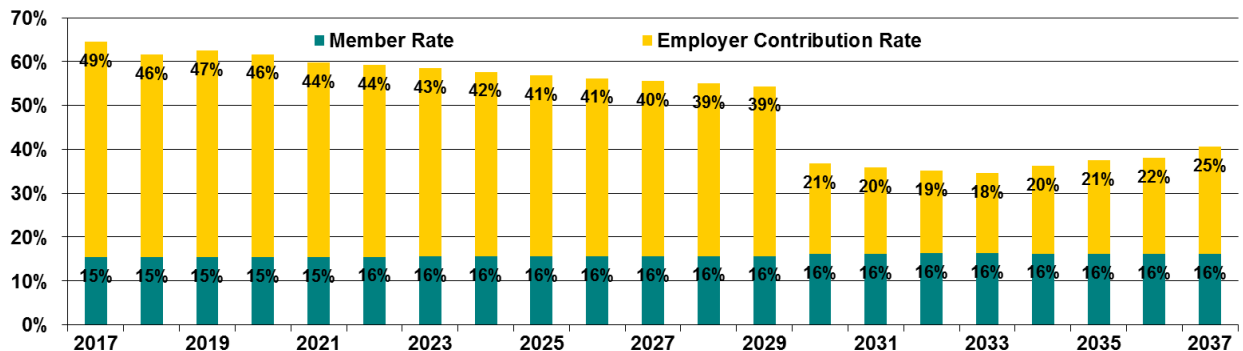


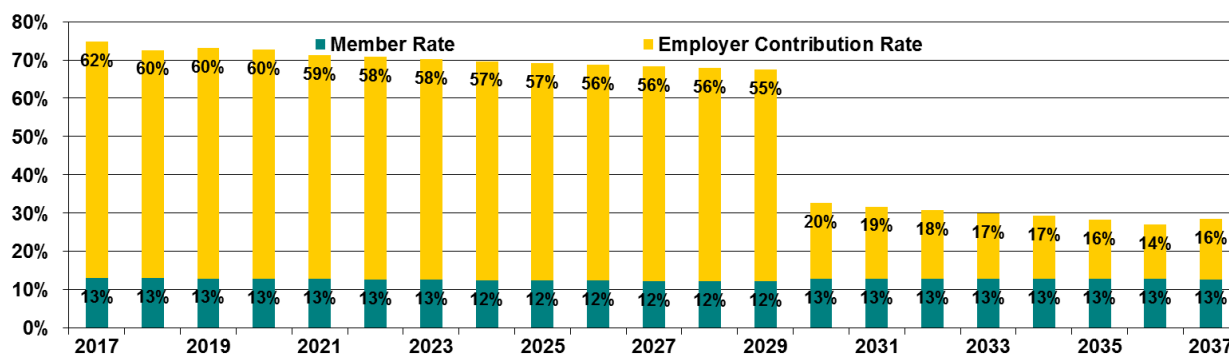
Chart I-5: Projection of Contributions, 7.00% Return Each Year – Novato FPD



MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017

SECTION I – EXECUTIVE SUMMARY

Chart I-6: Projection of Contributions, 7.00% Return Each Year – City of San Rafael



Asset and Liability Projections

The following charts show the projection of assets and liabilities assuming that assets will earn the 7.00% assumption each year during the projection period, and the actuarially determined contributions shown in the projections above are made. The percentages shown at the top of the charts are the ratios of the Market Value of Assets to the Actuarial Liability (the funded ratios).

The charts on the next page show that the projected funded status increases over the next 13 years to approach 100%, as can be expected based on the 13-year amortization policy for the majority of the current unfunded liability, assuming the actuarial assumptions are achieved. However, as above, it is the **actual** return on Plan assets that will determine the future funding status and contribution rate to the Plan.

The liabilities have been divided into those associated with the active employees and the inactive members (members in pay status or eligible to receive a deferred benefit). If the Plan's asset level drops below the liabilities for the inactive members, it indicates that no Plan assets have been set aside to fund future benefits for current active participants. The County and Novato currently have asset levels greater than their inactive liabilities. San Rafael's asset level is slightly less than its inactive liability.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION I – EXECUTIVE SUMMARY

Chart I-7: Projection of Assets and Liabilities, 7.00% Return – County of Marin
(\$ millions)

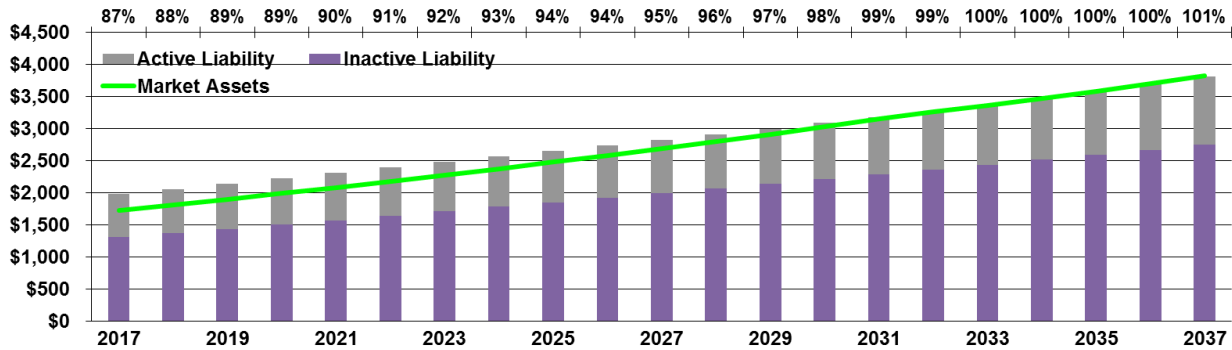


Chart I-8: Projection of Assets and Liabilities, 7.00% Return – Novato FPD
(\$ millions)

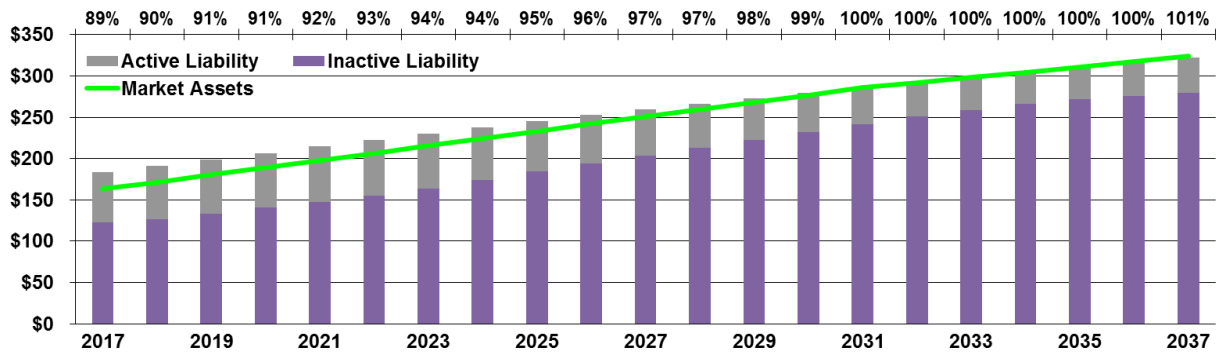
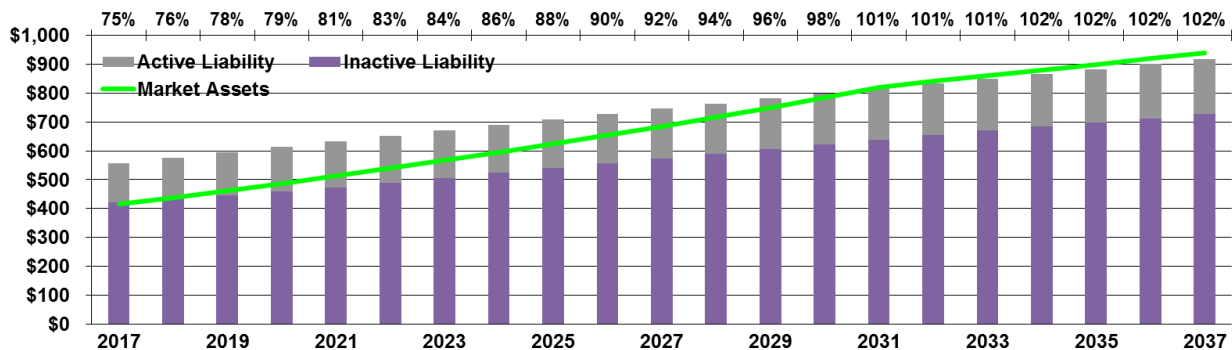


Chart I-9: Projection of Assets and Liabilities, 7.00% Return – City of San Rafael
(\$ millions)



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact employer contributions and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2016 and June 30, 2017,
- Statement of the **changes** in market values during the year,
- An assessment of historical **investment performance versus inflation**, and
- An allocation of the assets between the **employers and their valuation subgroups**.

Disclosure

The Market Value of Assets has replaced the smoothed Actuarial Value of Assets. The market value represents “snap-shot” or “cash-out” values that provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace.

Table II-1 on the next page discloses asset value as of June 30, 2016 and June 30, 2017.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

Table II-1 Statement of Assets at Market Value			
Assets:		June 30, 2016	June 30, 2017
Cash and Cash Equivalents	\$	35,586,471	\$ 46,809,883
Collateral held for Securities Loaned		36,267,606	36,938,897
Total Cash and Short Term Investments		71,854,077	83,748,780
Receivables:			
Contributions		3,639,298	6,141,593
Interest and Dividends		1,882,749	2,015,474
Due from Brokers for Securities Sold		3,874,113	3,147,080
Other Receivables		1,258,129	513,475
Total Receivables		10,654,289	11,817,622
Investments, at Fair Value:			
Domestic Fixed Income		353,101,813	339,793,320
International Fixed Income		61,756,871	62,120,201
Domestic Equities		672,991,542	740,704,272
International Equities		426,412,816	548,114,926
Private Equity		192,518,905	214,767,077
Real Estate		204,430,848	215,426,670
Real Assets		145,156,032	137,628,960
Total Investments		2,056,368,827	2,258,555,426
Other Assets:			
Capital Assets		5,933,038	5,459,603
Prepaid Insurance		50,851	59,724
Total Assets		2,144,861,082	2,359,641,155
Liabilities:			
Accounts Payable and Accrued Expenses		1,462,414	1,370,194
Due to Brokers for Securities Purchased		8,410,972	5,058,254
Rental Security Deposits		0	0
Retiree Payroll Payable		22,849	13,600
Obligations Under Securities Lending Program		36,267,606	36,938,897
Total Liabilities		46,163,840	43,380,945
Net Assets Held in Trust for Pension Benefits	\$	2,098,697,242	\$ 2,316,260,210

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table II-2 below shows the components of changes in the Market Value of Assets during the fiscal years ending June 30, 2016 and June 30, 2017.

Table II-2 Changes in Market Values		
<u>Additions</u>	<u>Fiscal Year ending June 30, 2016</u>	<u>Fiscal Year ending June 30, 2017</u>
Contributions		
Employer's Contribution	\$ 75,260,980	\$ 77,502,945
Members' Contributions	27,207,157	28,053,775
Total Contributions	102,468,137	105,556,720
Investment Income		
Net Appreciation/(Depreciation) in Fair Value of Investments	25,687,408	231,386,683
Interest and Dividends	16,268,051	15,585,631
Real Estate Operating Income, net	10,823,799	11,543,744
Other Investment Income	862,376	1,679,902
Total Investment Income/(Loss)	53,641,634	260,195,960
Investment Expenses	(10,911,481)	(12,035,614)
Net Investment Income/(Loss)	42,730,153	248,160,346
Securities Lending Activities		
Securities Lending Income	339,491	436,387
Expenses from Securities Lending Activities	(141,916)	(249,232)
Net Securities Lending Income/(Loss)	197,575	187,155
Total Investment Income/(Loss)	42,927,728	248,347,501
Total Additions/(Declines)	\$ 145,395,865	\$ 353,904,221

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

**Table II-2
Changes in Market Values (Continued)**

<u>Deductions</u>	<u>Fiscal Year ending June 30, 2016</u>	<u>Fiscal Year ending June 30, 2017</u>
Benefit payments	123,226,093	130,771,236
Refunds of Members' Contributions	977,426	1,165,826
Administrative Costs	3,514,621	3,555,663
Legal Costs & Litigation Settlement	451,526	494,196
Computer Expenses	273,381	209,075
Actuarial Expenses	140,232	145,257
Total Deductions	128,583,278	136,341,253
Net increase (Decrease)	16,812,586	217,562,968
Net Assets Held in Trust for Pension Benefits		
Beginning of Year	2,081,884,656	2,098,697,242
End of Year	2,098,697,242	2,316,260,210
Approximate Return (Net of Investment Expenses)*	2.1%	11.9%

*The approximate return is computed using an assumption that cash flows occur mid-year, on average. This calculation will not necessarily match the actual time- or money-weighted returns of the Plan.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

Historical Investment Performance

Table II-3 shows the historical annual asset returns on a market value basis, as well as in the increase in the Consumer Price Index (CPI) since 2002.

Table II-3 Net Return on Assets vs. Increase in Consumer Price Index		
Year Ended June 30	Net Return at Market Value	Increase in Consumer Price Index*
2002	N/A	1.2%
2003	N/A	1.6%
2004	N/A	1.4%
2005	N/A	1.1%
2006	N/A	3.9%
2007	18.1%	3.4%
2008	-6.7%	4.2%
2009	-19.8%	0.2%
2010	8.2%	1.1%
2011	23.4%	2.4%
2012	1.6%	2.6%
2013	13.9%	2.6%
2014	18.1%	3.0%
2015	5.0%	2.3%
2016	2.1%	2.7%
2017	11.9%	3.5%
10-Year Compound Average	4.8%	2.5%
5-Year Compound Average	9.6%	2.8%

* Based on Consumer Price Index for San Francisco-Oakland-San Jose Area (1982-1984 base period).

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION II – ASSETS

Asset Allocation by Valuation Subgroup

Table II-4 below shows the allocation of the Valuation Assets between the employers and their valuation subgroups (Miscellaneous vs. Safety). These allocations are based on a roll-forward of the asset balances from the prior year, adjusted for employee and employer contributions, and are used to calculate the UAL amortizations for each employer and subgroup. Assets are first allocated to cover the liabilities for inactive members (members in pay status or eligible to receive a deferred benefit), and any remaining assets are allocated to each group's active members based on the employer's share of the rolled-forward balances.

The top portion of the table shows the allocations for the active members of each employer. A negative balance indicates that the allocated assets are not sufficient to cover a group's inactive liabilities. The bottom portion of the table shows the total asset allocation (active and inactive) for each of the three main subgroups.

The column on the right shows the funded ratios. For the top portion of the table, the funded ratio is the percentage of the active liabilities that are covered by the Valuation Assets. For the bottom portion, the funded ratio represents the total funded ratio for each group.

Table II-4 Market Assets and Funding Ratios - Active Members Only					
Plan	Group	Assets 2016	Ratios 2016	Assets 2017	Ratios 2017
County	County Misc	\$ 212,100,697	52.2%	\$ 256,693,995	60.1%
	County Safety	94,359,842	55.9%	114,107,363	63.8%
	Courts	14,471,110	55.8%	16,946,631	65.6%
	South Marin Fire Misc	153,637	32.5%	235,534	42.6%
	South Marin Fire Safety	10,827,049	57.9%	13,547,308	62.5%
	Mosquito District	5,985,668	50.6%	7,202,517	52.3%
	LAFCO	200,466	82.7%	260,811	85.5%
	Tamalpais CSD	1,513,623	36.4%	1,904,405	44.1%
	Marin City CSD	352,679	89.8%	178,564	100.0%
Novato	Novato Misc	1,931,587	73.4%	2,499,993	80.6%
	Novato Safety	33,325,184	59.0%	38,309,616	66.3%
San Rafael	San Rafael Misc	(9,608,519)	(15.1%)	(683,004)	(1.1%)
	San Rafael Safety	(11,077,914)	(15.5%)	(4,043,527)	(5.4%)

Market Assets and Funding Ratios - Total					
County		\$ 1,575,237,297	84.1%	\$ 1,719,856,571	86.8%
Novato		148,395,413	86.1%	163,285,073	89.1%
San Rafael		375,064,531	70.6%	415,746,275	74.6%

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017

SECTION III – LIABILITIES

In this section, we present detailed information on Plan liabilities.

Disclosure

Several measures of liabilities are calculated and presented in this report. Note that these measures of liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations, represents the expected amount of money needed today to fully fund all benefits of the Plan both earned as of the valuation date and those to be earned in the future by current plan participants under the current Plan provisions if all assumptions are met.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial cost method. The method used for this Plan is called the **Entry Age Normal** (EAN) cost method. The Actuarial Liability represents the expected amount of money needed today to pay for benefits attributed to service prior to the valuation date. As such, it is the amount of assets targeted by the actuarial cost method for the Plan to hold as of the valuation date.

Table III-1 on the next page shows the Present Value of Future Benefits and Table III-2 shows the Actuarial Liability for each valuation subgroup for the current and prior valuations. The top portion of each table shows the liabilities for the active members for each employer. The bottom portion of the table shows the total liability (active and inactive) for each of the three main subgroups.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION III – LIABILITIES

Table III-1				
Present Value of Benefits - Active Members Only				
Plan	Group	2016	2017	
County	County Misc Tier 1	\$ 17,888,603	\$ 12,927,246	
	County Misc Tier 2	20,563,273	19,078,936	
	County Misc Tier 3	445,062,870	457,953,542	
	County Misc Tier 3A	34,899,876	38,545,898	
	County Misc Tier 4	29,119,699	34,704,460	
	County Misc Tier 5 (PEPRA)	64,570,643	90,937,300	
	County Safety Tier 1A	2,798,095	2,953,601	
	County Safety Tier 2A	41,782,612	42,679,523	
	County Safety Tier 2B	197,276,713	212,021,157	
	County Safety Tier 3 (PEPRA)	21,102,659	32,369,301	
	Courts Tier 1	2,633,300	1,344,661	
	Courts Tier 2	269,993	293,143	
	Courts Tier 3	29,491,496	30,299,283	
	Courts Tier 4	1,113,616	1,251,743	
	Courts Tier 5 (PEPRA)	1,709,031	2,953,123	
	South Marin Fire Misc Tier 1	542,024	572,438	
	South Marin Fire Misc Tier 2 (PEPRA)	463,615	601,153	
	South Marin Fire Safety Tier 1	17,001,610	18,671,771	
	South Marin Fire Safety Tier 2	14,392,317	15,759,029	
	South Marin Fire Safety Tier 2A	896,396	1,180,848	
	South Marin Fire Safety Tier 3A (PEPRA)	3,393,829	4,318,021	
	Mosquito District Tier 1	16,732,943	19,306,958	
	Mosquito District Tier 2 (PEPRA)	204,194	359,817	
	LAFCO Tier 3	681,014	771,298	
	LAFCO Tier 4 (PEPRA)	102,120	123,850	
	Tamalpais CSD Tier 1	5,043,548	5,495,431	
	Tamalpais CSD Tier 2 (PEPRA)	268,153	440,664	
	Marin City CSD Tier 1	1,115,001	286,697	
	Marin City CSD Tier 2 (PEPRA)	0	607,505	
Novato	Novato Misc Tier 1	3,950,956	4,481,494	
	Novato Misc Tier 2A (PEPRA)	300,617	354,332	
	Novato Safety Tier 1	70,804,206	72,600,892	
	Novato Safety Tier 2	5,023,799	5,568,508	
	Novato Safety Tier 3 (PEPRA)	2,859,037	2,976,554	
San Rafael	San Rafael Misc Tier 1	85,428,226	81,065,736	
	San Rafael Misc Tier 2	4,416,285	4,877,336	
	San Rafael Misc Tier 3 (PEPRA)	5,558,854	7,489,943	
	San Rafael Fire Tier 1	45,196,116	48,164,238	
	San Rafael Police Tier 1	55,264,577	53,820,718	
	San Rafael Fire Tier 2	7,487,648	9,614,749	
	San Rafael Police Tier 2	2,620,836	3,367,090	
	San Rafael Safety Tier 3 (PEPRA)	9,435,290	12,077,511	

Total Present Value of Benefits - Active and Inactive Members		
County	\$ 2,206,391,768	\$ 2,357,587,839
Novato	196,077,257	208,457,244
San Rafael	611,158,796	640,950,127

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION III – LIABILITIES

Table III-2				
Actuarial Liabilities - Active Members Only				
Plan	Group	2016	2017	
County	County Misc Tier 1	\$ 17,131,347	\$ 12,260,710	
	County Misc Tier 2	17,279,545	16,348,263	
	County Misc Tier 3	339,763,956	353,196,835	
	County Misc Tier 3A	15,073,775	18,196,642	
	County Misc Tier 4	6,942,551	9,865,742	
	County Misc Tier 5 (PEPRA)	10,276,753	17,578,956	
	County Safety Tier 1A	2,798,095	2,953,601	
	County Safety Tier 2A	29,138,187	29,977,836	
	County Safety Tier 2B	134,700,301	141,432,387	
	County Safety Tier 3 (PEPRA)	2,255,179	4,435,561	
	Courts Tier 1	2,559,204	1,300,317	
	Courts Tier 2	193,650	215,905	
	Courts Tier 3	22,278,670	23,171,330	
	Courts Tier 4	674,647	782,409	
	Courts Tier 5 (PEPRA)	219,315	380,034	
	South Marin Fire Misc Tier 1	353,780	389,081	
	South Marin Fire Misc Tier 2 (PEPRA)	119,625	164,233	
	South Marin Fire Safety Tier 1	12,924,769	14,361,323	
	South Marin Fire Safety Tier 2	5,383,113	6,562,660	
	South Marin Fire Safety Tier 2A	62,650	136,299	
	South Marin Fire Safety Tier 3A (PEPRA)	327,055	630,788	
	Mosquito District Tier 1	11,818,241	13,737,678	
	Mosquito District Tier 2 (PEPRA)	16,709	35,559	
	LAFCO Tier 3	234,250	286,337	
	LAFCO Tier 4 (PEPRA)	8,066	18,694	
	Tamalpais CSD Tier 1	4,123,098	4,259,571	
	Tamalpais CSD Tier 2 (PEPRA)	36,588	61,978	
	Marin City CSD Tier 1	392,700	115,671	
	Marin City CSD Tier 2 (PEPRA)	0	62,893	
Novato	Novato Misc Tier 1	2,602,799	3,050,208	
	Novato Misc Tier 2A (PEPRA)	28,469	52,970	
	Novato Safety Tier 1	54,149,497	54,883,093	
	Novato Safety Tier 2	1,932,091	2,290,397	
	Novato Safety Tier 3 (PEPRA)	416,465	583,534	
San Rafael	San Rafael Misc Tier 1	62,273,909	59,636,208	
	San Rafael Misc Tier 2	860,073	1,047,403	
	San Rafael Misc Tier 3 (PEPRA)	639,935	1,073,545	
	San Rafael Fire Tier 1	29,790,218	32,428,102	
	San Rafael Police Tier 1	38,653,707	38,231,443	
	San Rafael Fire Tier 2	1,606,215	2,155,392	
	San Rafael Police Tier 2	633,187	961,022	
	San Rafael Safety Tier 3 (PEPRA)	949,648	1,588,372	
Total Accrued Liabilities - Active and Inactive Members				
County		\$ 1,872,358,344	\$ 1,981,698,735	
Novato		172,267,963	183,335,666	
San Rafael		531,157,856	557,594,293	

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

For this Plan, there are three components to the total contribution: the **normal cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and the **administrative expense** contribution.

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the Plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a normal cost rate that is expected to remain constant over a member's career.

The total normal cost is computed by adding up the expected dollar amount of each active member's normal cost for the current year. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost is reduced by the expected contributions for each member and divided by the projected pay for each subgroup.

The Unfunded Actuarial Liability (UAL) is the difference between the EAN Actuarial Liability and the Market Value of Assets. The UAL payment is determined using the following pieces, and then divided by the projected payroll for each employer to calculate a UAL rate for each group:

- The amount needed to fund the extraordinary UAL resulting from the 2008-2009 investment losses as a level percent of member payroll over a fixed period (21 years remaining as of the current valuation, reduced from 22 years in the prior valuation),
- The remaining UAL as of June 30, 2013 over a period of 17 years as a level percentage of member payroll (13 years as of June 30, 2017), and
- 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 five-year phase-in/out (three years for assumption changes) of the payments/credits for each annual layer.

Administrative expenses are assumed to be \$4.917 million per year as of June 30, 2017, increasing at 3% per annum. The administrative expenses are split between employees and employers based on their share of the overall contributions.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

Table IV-1 below presents the calculation of employer contribution rates for each of the three main Plan groups, as well as a comparison to the prior year rates.

Table IV-1 Development of the Net Employer Contribution Rates as of June 30, 2017 for FYE 2019						
	June 30, 2016			June 30, 2017		
	County	Novato	San Rafael	County	Novato	San Rafael
1. Total Normal Cost Rate	21.93%	35.53%	28.44%	22.91%	39.31%	29.88%
2. Member Contribution Rate	<u>10.36%</u>	<u>13.23%</u>	<u>11.86%</u>	<u>10.71%</u>	<u>14.65%</u>	<u>12.48%</u>
3. Employer Normal Cost Rate (1-2)	11.57%	22.30%	16.58%	12.20%	24.66%	17.40%
4. UAL Amortization	13.37%	23.57%	41.68%	11.95%	22.12%	41.50%
5. Administrative Expense Rate	<u>1.19%</u>	<u>2.19%</u>	<u>2.78%</u>	<u>1.17%</u>	<u>2.27%</u>	<u>2.86%</u>
6. Final Employer Contribution Rate (3+4+5)	26.13%	48.06%	61.04%	25.32%	49.05%	61.76%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

Table IV-2 below presents the calculation of the UAL payments for the Plan for this valuation.

Table IV-2 Development of Amortization Payment For the June 30, 2017 Actuarial Valuation								
Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2017 Outstanding Balance	Remaining Amortization Years	Length of Phase In/Out	Current Phase In/Out Percentage	Amortization Amount
Charges / (Credits)								
1. County - 2009 Extraordinary Loss	6/30/2009	\$ 146,241,604	30	\$ 156,876,159	21	N/A	100%	\$ 11,015,356
2. County - Initial UAL	6/30/2013	188,358,828	17	174,766,379	13	N/A	100%	17,301,424
3. County - (Gain)/Loss Base	6/30/2014	(223,502,748)	24	(251,463,504)	21	5	80%	(15,344,727)
4. County - Assumption Changes	6/30/2014	99,117,401	22	105,036,422	19	3	100%	8,187,796
5. County - (Gain)/Loss Base	6/30/2015	36,267,023	24	39,831,458	22	5	60%	1,810,516
6. County - (Gain)/Loss Base	6/30/2016	62,321,452	24	65,805,744	23	5	40%	2,010,368
7. County - (Gain)/Loss Base	6/30/2017	(56,402,352)	24	(56,402,352)	24	5	20%	(881,483)
8. County - Assumption Changes	6/30/2017	27,391,858	22	27,391,858	22	3	33%	687,481
9. Novato - 2009 Extraordinary Loss	6/30/2009	14,765,994	30	15,839,763	21	N/A	100%	1,112,219
10. Novato - Initial UAL	6/30/2013	17,008,202	17	15,780,848	13	N/A	100%	1,562,264
11. Novato - (Gain)/Loss Base	6/30/2014	(22,114,107)	24	(24,880,637)	21	5	80%	(1,518,258)
12. Novato - Assumption Changes	6/30/2014	6,230,650	22	6,602,727	19	3	100%	514,696
13. Novato - (Gain)/Loss Base	6/30/2015	2,876,813	24	3,159,555	22	5	60%	143,616
14. Novato - (Gain)/Loss Base	6/30/2016	6,441,310	24	6,801,433	23	5	40%	207,784
15. Novato - (Gain)/Loss Base	6/30/2017	(7,837,057)	24	(7,837,057)	24	5	20%	(122,481)
16. Novato - Assumption Changes	6/30/2017	4,583,960	22	4,583,960	22	3	33%	115,048
17. San Rafael - 2009 Extraordinary Loss	6/30/2009	34,997,031	30	37,541,983	21	N/A	100%	2,636,081
18. San Rafael - Initial UAL	6/30/2013	124,305,953	17	115,335,723	13	N/A	100%	11,417,941
19. San Rafael - (Gain)/Loss Base	6/30/2014	(54,710,285)	24	(61,554,679)	21	5	80%	(3,756,170)
20. San Rafael - Assumption Changes	6/30/2014	30,608,707	22	32,436,575	19	3	100%	2,528,495
21. San Rafael - (Gain)/Loss Base	6/30/2015	8,187,631	24	8,992,336	22	5	60%	408,741
22. San Rafael - (Gain)/Loss Base	6/30/2016	18,955,168	24	20,014,921	23	5	40%	611,457
23. San Rafael - (Gain)/Loss Base	6/30/2017	(19,744,705)	24	(19,744,705)	24	5	20%	(308,580)
24. San Rafael - Assumption Changes	6/30/2017	8,825,862	22	8,825,862	22	3	33%	221,511
Total				\$ 423,740,775				\$ 40,561,094

The single equivalent amortization period - i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization payment – is approximately 14 years.

Tables IV-3 through IV-6 present the calculation of employer contribution rates for each employer and Tier.



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

**Table IV-3
Development of the County Misc/Safety Member Contribution Rates as of June 30, 2017 for FYE 2019**

	County Misc Tier 1	County Misc Tier 2	County Misc Tier 3	County Misc Tier 3A	County Misc Tier 4	County Misc Tier 5	County Misc
A. Total Normal Cost Rate	21.30%	20.35%	19.88%	21.41%	20.35%	17.81%	19.45%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>1.96%</u>	<u>8.74%</u>	<u>9.15%</u>	<u>9.74%</u>	<u>8.63%</u>	<u>8.87%</u>	8.95%
C. Employer Normal Cost Rate (A-B)	19.34%	11.61%	10.73%	11.67%	11.72%	8.94%	10.50%
D. UAL Amortization Rate	10.19%	10.19%	10.19%	10.19%	10.19%	10.19%	10.19%
E. Administrative Expense Rate	<u>1.43%</u>	<u>1.06%</u>	<u>1.01%</u>	<u>1.06%</u>	<u>1.06%</u>	<u>0.93%</u>	1.00%
F. Net June 30, 2017 Contribution Rate (C+D+E)	30.96%	22.86%	21.93%	22.92%	22.97%	20.06%	21.69%
	County Safety Tier 2A	County Safety Tier 2B	County Safety Tier 3	County Safety	County Misc / Safety		
A. Total Normal Cost Rate	35.32%	36.13%	27.00%	34.17%	22.47%		
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>15.33%</u>	<u>18.68%</u>	<u>13.34%</u>	<u>16.95%</u>	10.59%		
C. Employer Normal Cost Rate (A-B)	19.99%	17.45%	13.66%	17.22%	11.88%		
D. UAL Amortization Rate	17.90%	17.90%	17.90%	17.90%	11.77%		
E. Administrative Expense Rate	<u>1.84%</u>	<u>1.71%</u>	<u>1.53%</u>	<u>1.70%</u>	1.15%		
F. Net June 30, 2017 Contribution Rate (C+D+E)	39.73%	37.06%	33.09%	36.82%	24.80%		

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

**Table IV-4
Development of the County Special Districts Contribution Rates as of June 30, 2017 for FYE 2019**

	South Marin Fire Misc Tier 1	South Marin Fire Misc Tier 2	Tamalpais CSD Tier 1	Tamalpais CSD Tier 2	Marin City CSD Tier 1	Marin City CSD Tier 2	Mosquito District Tier 1	Mosquito District Tier 2
A. Total Normal Cost Rate	30.67%	21.76%	24.88%	20.44%	24.05%	22.15%	24.78%	18.08%
B. Member Contribution Rate (Excluding Admin Expense Load)	14.69%	10.42%	10.03%	10.42%	10.83%	10.42%	9.96%	10.42%
C. Employer Normal Cost Rate (A-B)	15.98%	11.34%	14.85%	10.02%	13.22%	11.73%	14.82%	7.66%
D. UAL Amortization Rate	5.94%	5.94%	18.73%	18.73%	5.44%	5.44%	16.86%	16.86%
E. Administrative Expense Rate	1.06%	0.84%	1.63%	1.39%	0.91%	0.83%	1.54%	1.19%
F. Net June 30, 2017 Contribution Rate (C+D+E)	22.98%	18.12%	35.21%	30.14%	19.57%	18.00%	33.22%	25.71%

	LAFCO Tier 3	LAFCO Tier 4	South Marin Fire Safety Tier 1	South Marin Fire Safety Tier 2	South Marin Fire Safety Tier 2A	South Marin Fire Safety Tier 3A	Special Districts	Total County
A. Total Normal Cost Rate	21.27%	12.28%	43.05%	44.59%	39.40%	32.78%	33.13%	22.91%
B. Member Contribution Rate (Excluding Admin Expense Load)	7.63%	8.87%	15.97%	14.27%	12.82%	16.39%	12.55%	10.71%
C. Employer Normal Cost Rate (A-B)	13.64%	3.41%	27.08%	30.32%	26.58%	16.39%	20.58%	12.20%
D. UAL Amortization Rate	3.83%	3.83%	11.10%	11.10%	11.10%	11.10%	13.07%	11.95%
E. Administrative Expense Rate	0.85%	0.35%	1.85%	2.01%	1.83%	1.33%	1.63%	1.17%
F. Net June 30, 2017 Contribution Rate (C+D+E)	18.32%	7.59%	40.03%	43.43%	39.51%	28.82%	35.28%	25.32%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

**Table IV-5
Development of the Courts and Novato Contribution Rates as of June 30, 2017 for FYE 2019**

	Courts Tier 1	Courts Tier 2	Courts Tier 3	Courts Tier 4	Courts Tier 5	Courts Total
A. Total Normal Cost Rate	17.24%	16.54%	19.72%	23.17%	18.30%	19.51%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>0.00%</u>	<u>7.88%</u>	<u>9.14%</u>	<u>10.86%</u>	<u>8.87%</u>	<u>8.99%</u>
C. Employer Normal Cost Rate (A-B)	17.24%	8.66%	10.58%	12.31%	9.43%	10.52%
D. UAL Amortization Rate	14.85%	14.85%	14.85%	14.85%	14.85%	14.85%
E. Administrative Expense Rate	<u>1.56%</u>	<u>1.14%</u>	<u>1.23%</u>	<u>1.32%</u>	<u>1.18%</u>	<u>1.23%</u>
F. Net June 30, 2017 Contribution Rate (C+D+E)	33.65%	24.65%	26.66%	28.48%	25.46%	26.60%

	Novato Misc Tier 1	Novato Misc Tier 2A	Novato Misc	Novato Safety Tier 1	Novato Safety Tier 2	Novato Safety Tier 3	Novato Safety	Novato Total
A. Total Normal Cost Rate	22.77%	19.83%	22.25%	41.99%	44.02%	31.11%	41.25%	39.31%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>9.86%</u>	<u>8.87%</u>	<u>9.65%</u>	<u>15.14%</u>	<u>15.51%</u>	<u>15.55%</u>	<u>15.09%</u>	<u>14.65%</u>
C. Employer Normal Cost Rate (A-B)	12.91%	10.96%	12.60%	26.85%	28.51%	15.56%	26.16%	24.66%
D. UAL Amortization Rate	6.27%	6.27%	6.27%	23.94%	23.94%	23.94%	23.94%	22.12%
E. Administrative Expense Rate	<u>0.93%</u>	<u>0.84%</u>	<u>0.92%</u>	<u>2.46%</u>	<u>2.54%</u>	<u>1.92%</u>	<u>2.43%</u>	<u>2.27%</u>
F. Net June 30, 2017 Contribution Rate (C+D+E)	20.11%	18.07%	19.79%	53.25%	54.99%	41.42%	52.53%	49.05%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

**Table IV-6
Development of the San Rafael Contribution Rates as of June 30, 2017 for FYE 2019**

	San Rafael Misc Tier 1	San Rafael Misc Tier 2	San Rafael Misc Tier 3	San Rafael Misc
A. Total Normal Cost Rate	27.49%	22.90%	16.69%	24.55%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>12.09%</u>	<u>8.39%</u>	<u>8.87%</u>	<u>10.93%</u>
C. Employer Normal Cost Rate (A-B)	15.40%	14.51%	7.82%	13.62%
D. UAL Amortization Rate	35.47%	35.47%	35.47%	35.47%
E. Administrative Expense Rate	<u>2.47%</u>	<u>2.42%</u>	<u>2.10%</u>	<u>2.38%</u>
F. Net June 30, 2017 Contribution Rate (C+D+E)	53.34%	52.40%	45.39%	51.47%

	San Rafael Fire Tier 1	San Rafael Police Tier 1	San Rafael Fire Tier 2	San Rafael Police Tier 2	San Rafael Safety Tier 3	San Rafael Safety	San Rafael Total
A. Total Normal Cost Rate	38.61%	37.38%	33.78%	36.04%	25.82%	35.28%	29.88%
B. Member Contribution Rate (Excluding Admin Expense)	<u>14.80%</u>	<u>14.18%</u>	<u>12.25%</u>	<u>13.61%</u>	<u>13.34%</u>	<u>13.86%</u>	<u>12.48%</u>
C. Employer Normal Cost Rate (A-B)	23.81%	23.20%	21.53%	22.43%	12.48%	21.42%	17.40%
D. UAL Amortization Rate	47.66%	47.66%	47.66%	47.66%	47.66%	47.66%	41.50%
E. Administrative Expense Rate	<u>3.47%</u>	<u>3.44%</u>	<u>3.36%</u>	<u>3.40%</u>	<u>2.92%</u>	<u>3.35%</u>	<u>2.86%</u>
F. Net June 30, 2017 Contribution Rate (C+D+E)	74.94%	74.30%	72.55%	73.49%	63.06%	72.43%	61.76%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

The following table shows the contribution rates for the new benefit Tiers for those employers that did not have any active members in those Tiers as of June 30, 2016. The Normal Cost rates for these Tiers are based on the pooled demographic profiles of the employers with current active PEPRA members.

**Table IV-7
Development of Contribution Rates for New Tiers with No Active Members as of June 30, 2017 for FYE 2019**

	South Marin Fire Safety Tier 3	Novato Misc Tier 2	Novato Safety Tier 3A
A. Total Normal Cost Rate	31.11%	20.83%	26.67%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>15.55%</u>	<u>10.42%</u>	<u>13.34%</u>
C. Employer Normal Cost Rate (A-B)	15.56%	10.41%	13.33%
D. UAL Amortization Rate	11.10%	6.27%	23.94%
E. Administrative Expense Rate	<u>1.29%</u>	<u>0.81%</u>	<u>1.81%</u>
F. Net June 30, 2017 Contribution Rate (C+D+E)	27.95%	17.49%	39.08%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

SECTION IV – CONTRIBUTIONS

Table IV-8 contains a comparison of the employer contribution rates for each employer and Tier to the prior year rates, as well as the number of active members in each Tier as of June 30, 2017.

		Table IV-8			
Plan	Group	# of Active Members	2016	2017	
County	County Misc Tier 1	10	29.73%	30.96%	
	County Misc Tier 2	43	23.73%	22.86%	
	County Misc Tier 3	833	22.72%	21.93%	
	County Misc Tier 3A	108	23.47%	22.92%	
	County Misc Tier 4	136	23.69%	22.97%	
	County Misc Tier 5 (PEPRA)	570	21.08%	20.06%	
	County Misc	1,700	22.54%	21.69%	
	County Safety Tier 1A	1	21.22%	18.77%	
	County Safety Tier 2A	55	40.51%	39.73%	
	County Safety Tier 2B	208	36.64%	37.06%	
	County Safety Tier 3 (PEPRA)	91	35.01%	33.09%	
	County Safety	355	36.91%	36.82%	
	County Misc/Safety	2,055	25.50%	24.80%	
	Courts Tier 1	1	34.20%	33.64%	
	Courts Tier 2	1	26.13%	24.64%	
	Courts Tier 3	70	28.48%	26.65%	
	Courts Tier 4	4	29.90%	28.47%	
	Courts Tier 5 (PEPRA)	25	27.67%	25.45%	
	Courts	101	28.53%	26.59%	
	South Marin Fire Misc Tier 1	1	22.06%	22.98%	
	South Marin Fire Misc Tier 2 (PEPRA)	2	17.78%	18.12%	
	South Marin Fire Safety Tier 1	15	37.40%	40.03%	
	South Marin Fire Safety Tier 2	24	41.43%	43.43%	
	South Marin Fire Safety Tier 2A	2	36.00%	39.51%	
	South Marin Fire Safety Tier 3A (PEPRA)	10	28.85%	28.82%	
	Mosquito District Tier 1	31	35.27%	33.22%	
	Mosquito District Tier 2 (PEPRA)	2	31.63%	25.71%	
	LAFCO Tier 3	2	19.22%	18.32%	
	LAFCO Tier 4 (PEPRA)	1	8.49%	7.59%	
	Tamalpais CSD Tier 1	9	37.22%	35.21%	
	Tamalpais CSD Tier 2 (PEPRA)	3	29.05%	30.14%	
	Marin City CSD Tier 1	2	18.81%	20.07%	
	Marin City CSD Tier 2 (PEPRA)	3	N/A	18.51%	
	Special Districts	107	35.19%	35.30%	
	Total County	2,263	26.13%	25.32%	
Novato	Novato Misc Tier 1	7	20.72%	20.11%	
	Novato Misc Tier 2A (PEPRA)	3	18.62%	18.07%	
	Novato Safety Tier 1	51	51.68%	53.25%	
	Novato Safety Tier 2	7	54.52%	54.99%	
	Novato Safety Tier 3 (PEPRA)	6	41.35%	41.42%	
	Total Novato	74	48.06%	49.05%	
San Rafael	San Rafael Misc Tier 1	135	52.67%	53.34%	
	San Rafael Misc Tier 2	18	50.02%	52.40%	
	San Rafael Misc Tier 3 (PEPRA)	59	44.19%	45.39%	
	San Rafael Misc	212	50.87%	51.47%	
	San Rafael Fire Tier 1	39	74.12%	74.94%	
	San Rafael Police Tier 1	46	73.31%	74.30%	
	San Rafael Fire Tier 2	15	71.40%	72.55%	
	San Rafael Police Tier 2	5	73.75%	73.49%	
	San Rafael Safety Tier 3 (PEPRA)	31	62.82%	63.06%	
	San Rafael Safety	136	71.54%	72.43%	
	Total San Rafael	348	61.04%	61.76%	

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by MCERA as of June 30, 2017. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator on electronic media. As is usual in studies of this type, Member data was neither verified nor audited.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: County of Marin														
	Miscellaneous		Marin County Safety		Total		Miscellaneous		Marin Special Districts Safety		Total		Total County and Special Districts	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants														
Number	1,682	1,700	357	355	2,039	2,055	153	157	51	51	204	208	2,243	2,263
Average Age	48.81	48.51	40.83	40.51	47.41	47.13	50.07	49.93	41.11	42.14	47.83	48.02	47.45	47.21
Average Service	10.44	10.31	10.85	10.88	10.52	10.40	12.48	12.15	7.73	8.74	11.29	11.31	10.59	10.49
Average Pay*	\$84,391	\$86,629	\$103,649	\$106,754	\$87,763	\$90,105	\$77,440	\$77,901	\$103,297	\$104,088	\$83,904	\$84,322	\$87,412	\$89,574
Service Retired														
Number	1,447	1,481	234	251	1,681	1,732	120	123	24	24	144	147	1,825	1,879
Average Age	72.35	72.41	63.78	63.94	71.16	71.18	67.17	67.86	62.25	63.38	66.35	67.13	70.78	70.86
Average Total Benefit*	\$35,394	\$36,565	\$68,116	\$69,425	\$39,949	\$41,327	\$36,118	\$37,330	\$74,360	\$74,662	\$42,491	\$43,425	\$40,150	\$41,491
Beneficiaries														
Number	254	264	63	65	317	329	12	13	9	10	21	23	338	352
Average Age	74.65	74.76	69.37	69.21	73.60	73.67	66.38	65.49	65.86	65.59	66.15	65.54	73.14	73.13
Average Total Benefit*	\$23,174	\$23,993	\$38,674	\$39,304	\$26,254	\$27,018	\$14,550	\$14,893	\$41,502	\$41,945	\$26,101	\$26,655	\$26,245	\$26,994
Duty Disabled														
Number	85	86	101	105	186	191	3	4	16	17	19	21	205	212
Average Age	66.81	67.39	62.30	62.26	64.36	64.57	62.83	66.11	65.42	65.31	65.01	65.46	64.42	64.66
Average Total Benefit*	\$36,358	\$36,545	\$50,937	\$52,215	\$44,275	\$45,159	\$22,211	\$20,975	\$53,075	\$54,097	\$48,201	\$47,788	\$44,639	\$45,420
Ordinary Disabled														
Number	31	29	7	6	38	35	3	2	1	1	4	3	42	38
Average Age	68.50	70.43	54.38	56.58	65.90	68.06	65.21	62.85	56.21	57.93	62.96	61.21	65.62	67.52
Average Total Benefit*	\$20,490	\$21,330	\$46,360	\$51,798	\$25,256	\$26,553	\$25,946	\$24,867	\$55,617	\$71,260	\$33,363	\$40,331	\$26,028	\$27,641
Total In Pay														
Number	1,817	1,860	405	427	2,222	2,287	138	142	50	52	188	194	2,410	2,481
Average Age	72.35	72.48	64.12	64.23	70.85	70.94	66.96	67.53	63.79	64.33	66.12	66.67	70.48	70.60
Average Total Benefit*	\$33,477	\$34,542	\$58,876	\$60,360	\$38,106	\$39,362	\$33,719	\$34,639	\$61,259	\$61,582	\$41,043	\$41,861	\$38,335	\$39,558
Terminated Vested														
Number	175	194	21	18	196	212	16	20	4	2	20	22	216	234
Average Age	49.55	49.70	45.72	45.06	49.14	49.31	45.85	45.71	50.11	50.70	46.70	46.16	48.91	49.01
Average Service	7.57	7.64	7.13	7.50	7.53	7.63	8.52	8.65	2.58	3.10	7.33	8.14	7.51	7.68
Transfers														
Number	195	191	68	64	263	255	24	23	16	14	40	37	303	292
Average Age	49.61	49.86	45.01	45.23	48.42	48.70	49.36	50.79	46.53	46.42	48.23	49.14	48.40	48.76
Average Service	5.03	5.15	4.86	4.49	4.99	4.98	5.29	4.87	4.95	5.11	5.15	4.96	5.01	4.98
Total Inactive														
Number	370	385	89	82	459	467	40	43	20	16	60	59	519	526
Average Age	49.58	49.78	45.18	45.19	48.73	48.98	47.96	48.43	47.24	46.96	47.72	48.03	48.61	48.87
Average Service	6.23	6.40	5.39	5.15	6.07	6.18	6.58	6.63	4.47	4.86	5.88	6.15	6.05	6.18

*All payroll and benefit figures shown are annual.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: County of Marin												
	Tier 1		Tier 2		Tier 3		Tier 3A		Tier 4		Tier 5	
	Miscellaneous		Miscellaneous		Miscellaneous		Miscellaneous		Miscellaneous		Miscellaneous	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants												
Number	14	10	51	43	904	833	117	108	138	136	458	570
Average Age	64.77	66.06	63.01	63.12	53.09	53.63	46.21	47.90	44.40	45.43	40.27	40.49
Average Service	33.89	34.22	18.18	19.59	15.65	16.46	6.49	7.50	3.15	3.95	1.80	2.24
Average Pay*	\$111,557	\$116,854	\$76,202	\$76,514	\$90,391	\$93,693	\$89,357	\$94,120	\$82,137	\$88,082	\$72,041	\$74,772
Service Retired												
Number	567	535	244	247	630	692	5	5	1	1	0	1
Average Age	77.49	77.68	77.36	77.68	65.89	66.54	61.14	62.14	61.47	62.47	0.00	65.72
Average Total Benefit*	\$46,483	\$49,403	\$21,974	\$22,568	\$30,845	\$31,888	\$10,858	\$11,075	\$11,032	\$11,253	\$0	\$14,171
Beneficiaries												
Number	166	167	46	48	42	49	0	0	0	0	0	0
Average Age	79.43	79.77	70.48	71.93	60.34	60.47	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$26,501	\$27,495	\$14,251	\$14,590	\$19,795	\$21,268	\$0	\$0	\$0	\$0	\$0	\$0
Duty Disabled												
Number	23	22	29	29	33	35	0	0	0	0	0	0
Average Age	73.17	73.89	65.62	66.62	63.42	63.94	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$39,973	\$40,021	\$28,058	\$28,619	\$41,133	\$40,927	\$0	\$0	\$0	\$0	\$0	\$0
Ordinary Disabled												
Number	11	11	11	11	9	7	0	0	0	0	0	0
Average Age	72.09	73.09	70.68	71.68	61.47	64.31	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$23,827	\$24,542	\$17,680	\$18,034	\$19,846	\$21,463	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay												
Number	767	735	330	335	714	783	5	5	1	1	0	1
Average Age	77.70	77.98	75.15	75.70	65.39	66.02	61.14	62.14	61.47	62.47	0.00	65.72
Average Total Benefit*	\$41,638	\$43,773	\$21,289	\$21,800	\$30,532	\$31,534	\$10,858	\$11,075	\$11,032	\$11,253	\$0	\$14,171
Terminated Vested												
Number	3	3	3	3	153	160	10	19	5	7	1	2
Average Age	69.63	70.63	61.50	62.50	49.56	50.12	43.84	42.06	39.38	44.70	59.67	55.63
Average Service	4.77	4.77	5.42	5.42	7.93	8.10	5.71	6.28	2.37	2.63	11.97	8.64
Transfers												
Number	1	1	8	7	163	158	14	12	5	5	4	8
Average Age	59.84	65.12	60.42	59.37	49.95	50.55	45.76	44.92	43.57	43.20	32.59	37.74
Average Service	9.43	0.25	2.40	2.41	5.48	5.68	3.17	3.76	1.26	1.75	2.02	1.86
Total Inactive												
Number	4	4	11	10	316	318	24	31	10	12	5	10
Average Age	67.19	69.26	60.71	60.31	49.76	50.33	44.96	43.16	41.48	44.07	38.01	41.32
Average Service	5.93	3.64	3.23	3.32	6.67	6.90	4.23	5.30	1.82	2.27	4.01	3.21

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: County of Marin										
	Tier 1A Safety		Tier 2A Safety		Tier 1B Safety		Tier 2B Safety		Tier 3 Safety	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants										
Number	1	1	61	55	0	0	221	208	74	91
Average Age	68.91	69.91	46.29	46.91	0.00	0.00	42.80	43.27	30.04	30.01
Average Service	31.31	32.31	12.76	13.67	0.00	0.00	13.34	13.81	1.57	2.24
Average Pay*	\$223,136	\$222,314	\$97,131	\$102,206	\$0	\$0	\$113,826	\$118,265	\$77,016	\$81,919
Service Retired										
Number	68	66	26	29	31	31	109	125	0	0
Average Age	72.88	73.95	64.79	65.45	62.95	63.91	58.11	58.32	0.00	0.00
Average Total Benefit*	\$75,061	\$78,520	\$41,630	\$44,108	\$96,258	\$99,146	\$62,097	\$63,126	\$0	\$0
Beneficiaries										
Number	45	45	5	5	4	3	9	12	0	0
Average Age	74.34	74.68	58.37	59.37	53.40	52.62	57.72	56.95	0.00	0.00
Average Total Benefit*	\$40,936	\$41,946	\$35,430	\$36,139	\$13,977	\$14,415	\$40,140	\$36,941	\$0	\$0
Duty Disabled										
Number	39	38	26	26	6	6	30	35	0	0
Average Age	72.52	73.09	56.91	57.91	61.01	62.01	53.95	53.77	0.00	0.00
Average Total Benefit*	\$50,820	\$52,591	\$37,755	\$38,510	\$106,376	\$109,567	\$51,426	\$52,156	\$0	\$0
Ordinary Disabled										
Number	1	1	2	2	0	0	4	3	0	0
Average Age	69.72	70.72	54.37	55.37	0.00	0.00	50.56	52.68	0.00	0.00
Average Total Benefit*	\$24,467	\$25,201	\$30,091	\$30,693	\$0	\$0	\$59,967	\$74,733	\$0	\$0
Total In Pay										
Number	153	150	59	62	41	40	152	175	0	0
Average Age	73.20	73.93	60.42	61.47	61.73	62.78	57.07	57.22	0.00	0.00
Average Total Benefit*	\$58,514	\$60,624	\$39,006	\$40,685	\$89,711	\$94,354	\$58,635	\$59,335	\$0	\$0
Terminated Vested										
Number	0	0	6	8	0	0	14	10	1	0
Average Age	0.00	0.00	44.69	44.91	0.00	0.00	45.32	45.18	57.44	0.00
Average Service	0.00	0.00	10.00	9.45	0.00	0.00	6.25	5.94	2.37	0.00
Transfers										
Number	0	0	8	8	0	0	59	55	1	1
Average Age	0.00	0.00	41.51	42.51	0.00	0.00	45.65	45.81	34.90	35.11
Average Service	0.00	0.00	4.57	4.57	0.00	0.00	4.97	4.56	0.31	0.02
Total Inactive										
Number	0	0	14	16	0	0	73	65	2	1
Average Age	0.00	0.00	42.87	43.71	0.00	0.00	45.59	45.71	46.17	35.11
Average Service	0.00	0.00	6.89	7.01	0.00	0.00	5.22	4.77	1.34	0.02

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Marin Special Districts												
	Court Tier 1 Miscellaneous		Court Tier 2 Miscellaneous		Court Tier 3 Miscellaneous		Court Tier 4 Miscellaneous		Court Tier 5 Miscellaneous		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants												
Number	2	1	1	1	76	70	4	4	17	25	100	101
Average Age	58.91	60.00	48.60	49.60	52.27	52.68	50.47	51.47	40.01	40.22	50.21	49.59
Average Service	35.40	35.37	15.02	16.02	15.21	16.27	7.56	8.56	0.97	1.37	12.88	12.46
Average Pay*	\$98,807	\$99,801	\$56,511	\$57,077	\$73,225	\$75,055	\$67,723	\$69,538	\$68,002	\$59,711	\$72,461	\$71,105
Service Retired												
Number	17	18	12	11	61	64	0	0	0	0	90	93
Average Age	69.52	69.93	76.72	78.05	65.25	65.98	0.00	0.00	0.00	0.00	67.59	68.17
Average Total Benefit*	\$63,766	\$67,023	\$33,926	\$36,307	\$27,718	\$28,111	\$0	\$0	\$0	\$0	\$35,354	\$36,612
Beneficiaries												
Number	0	0	0	0	4	4	0	0	0	0	4	4
Average Age	0.00	0.00	0.00	0.00	68.44	69.44	0.00	0.00	0.00	0.00	68.44	69.44
Average Total Benefit*	\$0	\$0	\$0	\$0	\$15,559	\$15,870	\$0	\$0	\$0	\$0	\$15,559	\$15,870
Duty Disabled												
Number	0	0	0	0	0	1	0	0	0	0	0	1
Average Age	0.00	0.00	0.00	0.00	0.00	72.93	0.00	0.00	0.00	0.00	0.00	72.93
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$29,660	\$0	\$0	\$0	\$0	\$0	\$29,660
Ordinary Disabled												
Number	0	0	1	1	2	1	0	0	0	0	3	2
Average Age	0.00	0.00	69.71	70.71	62.96	54.98	0.00	0.00	0.00	0.00	65.21	62.85
Average Total Benefit*	\$0	\$0	\$13,572	\$13,844	\$32,132	\$35,890	\$0	\$0	\$0	\$0	\$25,946	\$24,867
Total In Pay												
Number	17	18	13	12	67	70	0	0	0	0	97	100
Average Age	69.52	69.93	76.18	77.44	65.37	66.12	0.00	0.00	0.00	0.00	67.55	68.16
Average Total Benefit*	\$63,766	\$67,023	\$32,360	\$34,435	\$27,123	\$27,544	\$0	\$0	\$0	\$0	\$34,247	\$35,478
Terminated Vested												
Number	0	0	0	0	14	16	0	0	0	0	14	16
Average Age	0.00	0.00	0.00	0.00	44.77	45.43	0.00	0.00	0.00	0.00	44.77	45.43
Average Service	0.00	0.00	0.00	0.00	8.40	8.60	0.00	0.00	0.00	0.00	8.40	8.60
Transfers												
Number	0	0	2	2	20	18	1	1	0	1	23	22
Average Age	0.00	0.00	59.44	60.44	49.30	50.16	29.81	30.81	0.00	62.52	49.33	50.78
Average Service	0.00	0.00	3.53	3.52	5.34	4.99	2.04	2.04	0.00	2.13	5.04	4.59
Total Inactive												
Number	0	0	2	2	34	34	1	1	0	1	37	38
Average Age	0.00	0.00	59.44	60.44	47.44	47.93	29.81	30.81	0.00	62.52	47.61	48.52
Average Service	0.00	0.00	3.53	3.52	6.60	6.69	2.04	2.04	0.00	2.13	6.31	6.28

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Marin Special Districts																
	Southern Marin Fire Tier 1 Miscellaneous		Southern Marin Fire Tier 2 Miscellaneous		Total		Southern Marin Fire Tier 1 Safety		Southern Marin Fire Tier 2 Safety		Southern Marin Fire Tier 2A Safety		Southern Marin Fire Tier 3A Safety		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants																
Number	1	1	2	2	3	3	15	15	24	24	2	2	10	10	51	51
Average Age	54.41	55.41	48.06	49.06	50.17	51.17	47.18	48.18	41.38	42.44	32.92	33.92	33.01	34.01	41.11	42.14
Average Service	11.92	12.92	2.89	3.75	5.90	6.81	16.43	17.43	5.56	6.56	1.10	2.11	1.24	2.25	7.73	8.74
Average Pay*	\$86,803	\$84,767	\$90,004	\$105,392	\$88,937	\$98,517	\$114,640	\$113,953	\$103,701	\$102,997	\$88,927	\$93,719	\$88,188	\$93,983	\$103,297	\$104,088
Service Retired																
Number	3	3	0	0	3	3	23	23	1	1	0	0	0	0	24	24
Average Age	70.17	71.17	0.00	0.00	70.17	71.17	62.29	63.43	61.32	62.32	0.00	0.00	0.00	0.00	62.25	63.38
Average Total Benefit*	\$24,588	\$25,326	\$0	\$0	\$24,588	\$25,326	\$77,391	\$77,700	\$4,648	\$4,788	\$0	\$0	\$0	\$0	\$74,360	\$74,662
Beneficiaries																
Number	0	0	0	0	0	0	9	10	0	0	0	0	0	0	9	10
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	65.86	65.59	0.00	0.00	0.00	0.00	0.00	0.00	65.86	65.59
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$41,502	\$41,945	\$0	\$0	\$0	\$0	\$0	\$0	\$41,502	\$41,945
Duty Disabled																
Number	1	1	0	0	1	1	16	16	0	1	0	0	0	0	16	17
Average Age	72.28	73.28	0.00	0.00	72.28	73.28	65.42	66.42	0.00	47.51	0.00	0.00	0.00	0.00	65.42	65.31
Average Total Benefit*	\$4,121	\$4,245	\$0	\$0	\$4,121	\$4,245	\$53,075	\$54,667	\$0	\$44,985	\$0	\$0	\$0	\$0	\$53,075	\$54,097
Ordinary Disabled																
Number	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	56.21	57.93	0.00	0.00	0.00	0.00	0.00	0.00	56.21	57.93
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$55,617	\$71,260	\$0	\$0	\$0	\$0	\$0	\$0	\$55,617	\$71,260
Total In Pay																
Number	4	4	0	0	4	4	49	50	1	2	0	0	0	0	50	52
Average Age	70.70	71.70	0.00	0.00	70.70	71.70	63.84	64.71	61.32	54.92	0.00	0.00	0.00	0.00	63.79	64.33
Average Total Benefit*	\$19,472	\$20,056	\$0	\$0	\$19,472	\$20,056	\$62,415	\$63,050	\$4,648	\$24,886	\$0	\$0	\$0	\$0	\$61,259	\$61,582
Terminated Vested																
Number	1	1	0	0	1	1	1	0	3	2	0	0	0	0	4	2
Average Age	72.85	73.85	0.00	0.00	72.85	73.85	53.15	0.00	49.10	50.70	0.00	0.00	0.00	0.00	50.11	50.70
Average Service	8.92	8.92	0.00	0.00	8.92	8.92	0.54	0.00	3.26	3.10	0.00	0.00	0.00	0.00	2.58	3.10
Transfers																
Number	0	0	0	0	0	0	10	9	6	5	0	0	0	0	16	14
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	51.29	51.31	38.58	37.62	0.00	0.00	0.00	0.00	46.53	46.42
Average Service	0.00	0.00	0.00	0.00	0.00	0.00	5.93	5.77	3.31	3.93	0.00	0.00	0.00	0.00	4.95	5.11
Total Inactive																
Number	1	1	0	0	1	1	11	9	9	7	0	0	0	0	20	16
Average Age	72.85	73.85	0.00	0.00	72.85	73.85	51.46	51.31	42.09	41.36	0.00	0.00	0.00	0.00	47.24	46.96
Average Service	8.92	8.92	0.00	0.00	8.92	8.92	5.44	5.77	3.29	3.69	0.00	0.00	0.00	0.00	4.47	4.86

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Marin Special Districts														
	Southern Marin Fire		Marin City CSD		Marin City CSD		Total		Mosquito District		Mosquito District		Total	
	Total		Tier 1 Miscellaneous		Tier 2 Miscellaneous		Total		Tier 1 Miscellaneous		Tier 2 Miscellaneous		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants														
Number	54	54	5	2	0	3	5	5	30	31	1	2	31	33
Average Age	41.62	42.64	45.36	55.61	0.00	43.91	45.36	48.59	50.49	51.17	41.85	34.35	50.21	50.15
Average Service	7.63	8.63	5.27	5.58	0.00	1.02	5.27	2.84	13.51	14.02	0.75	1.04	13.10	13.24
Average Pay*	\$102,499	\$103,778	\$67,369	\$43,930	\$0	\$77,709	\$67,369	\$64,197	\$92,008	\$95,513	\$76,193	\$78,162	\$91,498	\$94,462
Service Retired														
Number	27	27	1	1	0	0	1	1	14	14	0	0	14	14
Average Age	63.13	64.25	67.52	68.52	0.00	0.00	67.52	68.52	64.97	65.97	0.00	0.00	64.97	65.97
Average Total Benefit*	\$68,830	\$69,181	\$30,846	\$31,772	\$0	\$0	\$30,846	\$31,772	\$56,522	\$58,218	\$0	\$0	\$56,522	\$58,218
Beneficiaries														
Number	9	10	1	1	0	0	1	1	4	4	0	0	4	4
Average Age	65.86	65.59	81.31	82.31	0.00	0.00	81.31	82.31	71.45	72.45	0.00	0.00	71.45	72.45
Average Total Benefit*	\$41,502	\$41,945	\$24,935	\$25,683	\$0	\$0	\$24,935	\$25,683	\$15,721	\$16,193	\$0	\$0	\$15,721	\$16,193
Duty Disabled														
Number	17	18	0	0	0	0	0	0	1	1	0	0	1	1
Average Age	65.82	65.75	0.00	0.00	0.00	0.00	0.00	0.00	71.91	72.91	0.00	0.00	71.91	72.91
Average Total Benefit*	\$50,195	\$51,328	\$0	\$0	\$0	\$0	\$0	\$0	\$34,565	\$35,602	\$0	\$0	\$34,565	\$35,602
Ordinary Disabled														
Number	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	56.21	57.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$55,617	\$71,260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay														
Number	54	56	2	2	0	0	2	2	19	19	0	0	19	19
Average Age	64.31	64.86	74.42	75.42	0.00	0.00	74.42	75.42	66.70	67.70	0.00	0.00	66.70	67.70
Average Total Benefit*	\$58,164	\$58,616	\$27,891	\$28,728	\$0	\$0	\$27,891	\$28,728	\$46,777	\$48,180	\$0	\$0	\$46,777	\$48,180
Terminated Vested														
Number	5	3	0	2	0	0	0	2	1	1	0	0	1	1
Average Age	54.66	58.41	0.00	39.27	0.00	0.00	0.00	39.27	33.97	34.97	0.00	0.00	33.97	34.97
Average Service	3.85	5.04	0.00	8.33	0.00	0.00	0.00	8.33	9.85	9.85	0.00	0.00	9.85	9.85
Transfers														
Number	16	14	0	0	0	0	0	0	1	1	0	0	1	1
Average Age	46.53	46.42	0.00	0.00	0.00	0.00	0.00	0.00	50.03	51.03	0.00	0.00	50.03	51.03
Average Service	4.95	5.11	0.00	0.00	0.00	0.00	0.00	0.00	11.00	11.00	0.00	0.00	11.00	11.00
Total Inactive														
Number	21	17	0	2	0	0	0	2	2	2	0	0	2	2
Average Age	48.46	48.54	0.00	39.27	0.00	0.00	0.00	39.27	42.00	43.00	0.00	0.00	42.00	43.00
Average Service	4.68	5.10	0.00	8.33	0.00	0.00	0.00	8.33	10.43	10.43	0.00	0.00	10.43	10.43

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Marin Special Districts														
	LAFCO Tier 2 Miscellaneous		LAFCO Tier 3 Miscellaneous		LAFCO Tier 4 Miscellaneous		Total		Tamalpais CSD Tier 1 Miscellaneous		Tamalpais CSD Tier 2 Miscellaneous		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants														
Number	0	0	2	2	1	1	3	3	9	9	2	3	11	12
Average Age	0.00	0.00	43.14	44.14	26.52	27.52	37.60	38.60	58.69	59.80	32.47	41.80	53.92	55.30
Average Service	0.00	0.00	6.11	6.61	0.70	1.70	4.31	4.97	17.05	17.28	2.21	2.26	14.35	13.52
Average Pay*	\$0	\$0	\$101,832	\$103,847	\$71,032	\$73,154	\$91,565	\$93,616	\$85,236	\$93,612	\$60,119	\$63,877	\$80,670	\$86,178
Service Retired														
Number	2	2	2	2	0	0	4	4	8	8	0	0	8	8
Average Age	68.38	69.38	57.76	58.76	0.00	0.00	63.07	64.07	67.16	68.16	0.00	0.00	67.16	68.16
Average Total Benefit*	\$26,238	\$27,025	\$5,717	\$5,832	\$0	\$0	\$15,978	\$16,428	\$24,050	\$24,772	\$0	\$0	\$24,050	\$24,772
Beneficiaries														
Number	0	0	0	0	0	0	0	0	3	4	0	0	3	4
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.89	50.40	0.00	0.00	51.89	50.40
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,182	\$9,919	\$0	\$0	\$8,182	\$9,919
Duty Disabled														
Number	0	0	0	0	0	0	0	0	1	1	0	0	1	1
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.31	45.31	0.00	0.00	44.31	45.31
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,946	\$14,392	\$0	\$0	\$27,946	\$14,392
Ordinary Disabled														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay														
Number	2	2	2	2	0	0	4	4	12	13	0	0	12	13
Average Age	68.38	69.38	57.76	58.76	0.00	0.00	63.07	64.07	61.44	60.94	0.00	0.00	61.44	60.94
Average Total Benefit*	\$26,238	\$27,025	\$5,717	\$5,832	\$0	\$0	\$15,978	\$16,428	\$20,408	\$19,403	\$0	\$0	\$20,408	\$19,403
Terminated Vested														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Inactive														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Novato Fire Protection District										
	Tier 1 Miscellaneous		Tier 2A Miscellaneous		Tier 1 Safety		Tier 2 Safety		Tier 3 Safety	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants										
Number	7	7	3	3	53	51	7	7	7	6
Average Age	47.62	48.62	43.67	44.67	45.48	46.27	41.21	42.21	33.45	35.92
Average Service	12.44	13.44	0.72	1.39	16.63	17.22	6.49	7.24	2.25	3.21
Average Pay*	\$103,742	\$107,781	\$49,707	\$53,437	\$128,178	\$127,540	\$111,103	\$114,384	\$108,570	\$113,884
Service Retired										
Number	4	4	0	0	52	54	0	0	0	0
Average Age	65.03	66.03	0.00	0.00	66.24	66.66	0.00	0.00	0.00	0.00
Average Total Benefit*	\$39,449	\$40,632	\$0	\$0	\$95,282	\$100,551	\$0	\$0	\$0	\$0
Beneficiaries										
Number	1	1	0	0	15	14	0	0	0	0
Average Age	52.67	53.67	0.00	0.00	63.66	62.90	0.00	0.00	0.00	0.00
Average Total Benefit*	\$11,207	\$11,544	\$0	\$0	\$41,648	\$42,686	\$0	\$0	\$0	\$0
Duty Disabled										
Number	0	0	0	0	31	31	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	68.47	69.47	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$65,437	\$67,400	\$0	\$0	\$0	\$0
Ordinary Disabled										
Number	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay										
Number	5	5	0	0	98	99	0	0	0	0
Average Age	62.56	63.56	0.00	0.00	66.55	67.01	0.00	0.00	0.00	0.00
Average Total Benefit*	\$33,800	\$34,815	\$0	\$0	\$77,632	\$81,988	\$0	\$0	\$0	\$0
Terminated Vested										
Number	1	1	0	0	3	2	0	0	0	0
Average Age	57.56	58.56	0.00	0.00	44.50	49.21	0.00	0.00	0.00	0.00
Average Service	6.16	6.16	0.00	0.00	7.18	4.82	0.00	0.00	0.00	0.00
Transfers										
Number	1	1	0	0	10	10	0	0	0	0
Average Age	53.73	54.73	0.00	0.00	42.71	43.71	0.00	0.00	0.00	0.00
Average Service	1.25	1.25	0.00	0.00	4.04	4.04	0.00	0.00	0.00	0.00
Total Inactive										
Number	2	2	0	0	13	12	0	0	0	0
Average Age	55.65	56.65	0.00	0.00	43.12	44.63	0.00	0.00	0.00	0.00
Average Service	3.71	3.71	0.00	0.00	4.76	4.17	0.00	0.00	0.00	0.00

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: Novato Fire Protection District						
	Miscellaneous		Safety		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants						
Number	10	10	67	64	77	74
Average Age	46.43	47.43	43.78	44.86	44.12	45.21
Average Service	8.92	9.82	14.07	14.82	13.40	14.14
Average Pay*	\$87,532	\$91,478	\$124,345	\$124,821	\$119,564	\$120,315
Service Retired						
Number	4	4	52	54	56	58
Average Age	65.03	66.03	66.24	66.66	66.15	66.62
Average Total Benefit*	\$39,449	\$40,632	\$95,282	\$100,551	\$91,294	\$96,419
Beneficiaries						
Number	1	1	15	14	16	15
Average Age	52.67	53.67	63.66	62.90	62.91	62.15
Average Total Benefit*	\$11,207	\$11,544	\$41,648	\$42,686	\$39,745	\$40,610
Duty Disabled						
Number	0	0	31	31	31	31
Average Age	0.00	0.00	68.47	69.47	68.47	69.47
Average Total Benefit*	\$0	\$0	\$65,437	\$67,400	\$65,437	\$67,400
Ordinary Disabled						
Number	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay						
Number	5	5	98	99	103	104
Average Age	62.56	63.56	66.55	67.01	66.35	66.82
Average Total Benefit*	\$33,800	\$34,815	\$77,632	\$81,988	\$75,504	\$79,720
Terminated Vested						
Number	1	1	3	2	4	3
Average Age	57.56	58.56	44.50	49.21	47.77	52.32
Average Service	6.16	6.16	7.18	4.82	6.93	5.26
Transfers						
Number	1	1	10	10	11	11
Average Age	53.73	54.73	42.71	43.71	43.71	44.71
Average Service	1.25	1.25	4.04	4.04	3.79	3.79
Total Inactive						
Number	2	2	13	12	15	14
Average Age	55.65	56.65	43.12	44.63	44.79	46.34
Average Service	3.71	3.71	4.76	4.17	4.62	4.10

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: City of San Rafael										
	Miscellaneous		Police		Fire		Total Safety		Total	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants										
Number	221	212	83	82	53	54	136	136	357	348
Average Age	47.06	47.18	38.19	38.49	41.00	41.83	39.29	39.82	44.10	44.30
Average Service	10.73	10.61	9.56	9.82	10.71	11.49	10.01	10.49	10.46	10.56
Average Pay*	\$76,730	\$77,226	\$112,370	\$110,236	\$129,572	\$128,463	\$119,073	\$117,473	\$92,861	\$92,955
Service Retired										
Number	234	247	77	77	82	84	159	161	393	408
Average Age	69.12	69.62	65.15	65.99	67.01	67.33	66.11	66.69	67.90	68.46
Average Total Benefit*	\$35,033	\$36,851	\$65,623	\$68,784	\$89,573	\$90,679	\$77,974	\$80,208	\$52,406	\$53,960
Beneficiaries										
Number	35	31	15	16	22	22	37	38	72	69
Average Age	75.77	75.34	67.82	68.93	72.15	73.21	70.39	71.41	73.01	73.17
Average Total Benefit*	\$16,655	\$18,376	\$31,590	\$32,873	\$37,646	\$39,017	\$35,191	\$36,430	\$26,180	\$28,319
Duty Disabled										
Number	17	18	39	38	21	21	60	59	77	77
Average Age	65.40	65.65	61.13	61.98	66.71	67.81	63.09	64.06	63.60	64.43
Average Total Benefit*	\$27,310	\$28,738	\$53,191	\$54,867	\$81,219	\$83,656	\$63,001	\$65,114	\$55,121	\$56,611
Ordinary Disabled										
Number	2	2	0	0	0	0	0	0	2	2
Average Age	83.45	84.45	0.00	0.00	0.00	0.00	0.00	0.00	83.45	84.45
Average Total Benefit*	\$11,719	\$12,071	\$0	\$0	\$0	\$0	\$0	\$0	\$11,719	\$12,071
Total In Pay										
Number	288	298	131	131	125	127	256	258	544	556
Average Age	69.81	70.07	64.26	65.18	67.86	68.43	66.02	66.78	68.03	68.55
Average Total Benefit*	\$32,181	\$34,273	\$58,025	\$60,361	\$79,030	\$80,569	\$68,281	\$70,308	\$49,170	\$50,994
Terminated Vested										
Number	24	27	5	7	2	1	7	8	31	35
Average Age	50.24	48.29	48.08	46.36	53.33	50.84	49.58	46.92	50.09	47.97
Average Service	5.95	6.14	8.82	10.71	4.99	3.51	7.72	9.81	6.35	6.98
Transfers										
Number	66	69	20	18	7	6	27	24	93	93
Average Age	45.94	45.67	46.08	46.46	46.97	47.06	46.31	46.61	46.05	45.91
Average Service	3.03	3.30	5.06	5.36	5.06	3.21	5.06	4.82	3.62	3.69
Total Inactive										
Number	90	96	25	25	9	7	34	32	124	128
Average Age	47.09	46.41	46.48	46.43	48.38	47.60	46.98	46.69	47.06	46.48
Average Service	3.81	4.10	5.81	6.85	5.04	3.25	5.61	6.07	4.30	4.59

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2017: City of San Rafael																
	Tier 1 Miscellaneous		Tier 2 Miscellaneous		Tier 3 Miscellaneous		Tier 1 Police		Tier 2 Police		Tier 3 Safety		Tier 1 Fire		Tier 2 Fire	
	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017	6/30/2016	6/30/2017
Active Participants																
Number	151	135	21	18	49	59	49	46	5	5	29	31	39	39	14	15
Average Age	51.46	52.03	42.58	45.62	35.42	36.56	43.94	44.91	36.64	37.64	28.73	29.10	43.90	44.90	32.95	33.84
Average Service	14.82	15.44	2.85	3.41	1.51	1.74	14.99	15.55	3.41	4.42	1.46	2.20	13.24	14.32	3.68	4.13
Average Pay*	\$80,942	\$81,202	\$78,164	\$90,205	\$63,135	\$64,169	\$122,967	\$121,945	\$114,248	\$124,245	\$94,139	\$90,602	\$136,903	\$135,213	\$109,150	\$110,915
Service Retired																
Number	234	247	0	0	0	0	77	77	0	0	0	0	82	84	0	0
Average Age	69.12	69.62	0.00	0.00	0.00	0.00	65.15	65.99	0.00	0.00	0.00	0.00	67.01	67.33	0.00	0.00
Average Total Benefit*	\$35,033	\$36,851	\$0	\$0	\$0	\$0	\$65,623	\$68,784	\$0	\$0	\$0	\$0	\$89,573	\$90,679	\$0	\$0
Beneficiaries																
Number	35	31	0	0	0	0	15	16	0	0	0	0	22	22	0	0
Average Age	75.77	75.34	0.00	0.00	0.00	0.00	67.82	68.93	0.00	0.00	0.00	0.00	72.15	73.21	0.00	0.00
Average Total Benefit*	\$16,655	\$18,376	\$0	\$0	\$0	\$0	\$31,590	\$32,873	\$0	\$0	\$0	\$0	\$37,646	\$39,017	\$0	\$0
Duty Disabled																
Number	17	18	0	0	0	0	39	38	0	0	0	0	21	21	0	0
Average Age	65.40	65.65	0.00	0.00	0.00	0.00	61.13	61.98	0.00	0.00	0.00	0.00	66.71	67.81	0.00	0.00
Average Total Benefit*	\$27,310	\$28,738	\$0	\$0	\$0	\$0	\$53,191	\$54,867	\$0	\$0	\$0	\$0	\$81,219	\$83,656	\$0	\$0
Ordinary Disabled																
Number	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	83.45	84.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$11,719	\$12,071	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay																
Number	288	298	0	0	0	0	131	131	0	0	0	0	125	127	0	0
Average Age	69.81	70.07	0.00	0.00	0.00	0.00	64.26	65.18	0.00	0.00	0.00	0.00	67.86	68.43	0.00	0.00
Average Total Benefit*	\$32,181	\$34,273	\$0	\$0	\$0	\$0	\$58,025	\$60,361	\$0	\$0	\$0	\$0	\$79,030	\$80,569	\$0	\$0
Terminated Vested																
Number	24	26	0	1	0	0	5	7	0	0	0	0	2	1	0	0
Average Age	50.24	48.18	0.00	50.92	0.00	0.00	48.08	46.36	0.00	0.00	0.00	0.00	53.33	50.84	0.00	0.00
Average Service	5.95	6.32	0.00	1.69	0.00	0.00	8.82	10.71	0.00	0.00	0.00	0.00	4.99	3.51	0.00	0.00
Transfers																
Number	54	54	5	8	7	7	20	18	0	0	0	0	7	6	0	0
Average Age	47.84	48.23	40.56	41.37	35.17	30.85	46.08	46.46	0.00	0.00	0.00	0.00	46.97	47.06	0.00	0.00
Average Service	3.51	3.86	1.77	2.17	0.26	0.22	5.06	5.36	0.00	0.00	0.00	0.00	5.06	3.21	0.00	0.00
Total Inactive																
Number	78	80	5	9	7	7	25	25	0	0	0	0	9	7	0	0
Average Age	48.58	48.21	40.56	42.43	35.17	30.85	46.48	46.43	0.00	0.00	0.00	0.00	48.38	47.60	0.00	0.00
Average Service	4.26	4.66	1.77	2.12	0.26	0.22	5.81	6.85	0.00	0.00	0.00	0.00	5.04	3.25	0.00	0.00

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN COUNTY
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE														Total
Age	Service													
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	2	0	0	0	0	0	0	0	0	0	0	0	2	
20 to 24	13	4	1	0	0	0	0	0	0	0	0	0	18	
25 to 29	35	29	14	14	3	5	0	0	0	0	0	0	100	
30 to 34	27	41	24	30	16	23	7	0	0	0	0	0	168	
35 to 39	29	23	20	20	10	38	40	6	0	0	0	0	186	
40 to 44	17	16	8	16	12	35	49	24	3	0	0	0	180	
45 to 49	14	14	12	18	7	34	52	43	20	2	0	0	216	
50 to 54	13	14	11	11	10	38	49	55	32	17	5	1	256	
55 to 59	13	15	11	12	6	31	39	54	20	23	10	1	235	
60 to 64	5	6	5	7	9	28	52	45	23	17	10	2	209	
65 to 69	1	1	1	4	0	13	26	30	15	3	6	3	103	
70 & up	0	0	0	0	0	0	6	12	2	4	1	2	27	
Total	169	163	107	132	73	245	320	269	115	66	32	9	1,700	

**MARIN COUNTY
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	50,915	0	0	0	0	0	0	0	0	0	0	0	50,915
20 to 24	60,048	56,648	58,885	0	0	0	0	0	0	0	0	0	59,228
25 to 29	58,004	67,978	62,399	71,377	77,674	83,243	0	0	0	0	0	0	65,236
30 to 34	66,162	72,091	71,170	79,311	69,871	89,627	91,236	0	0	0	0	0	75,283
35 to 39	74,948	75,296	67,767	98,998	87,338	84,825	96,494	91,041	0	0	0	0	84,642
40 to 44	93,872	94,093	75,855	77,050	79,101	92,085	93,313	99,289	86,766	0	0	0	90,715
45 to 49	77,466	86,684	75,296	78,627	83,779	88,554	98,997	100,476	101,161	76,421	0	0	91,938
50 to 54	95,044	76,678	100,181	78,098	106,292	83,081	88,729	94,521	97,101	94,908	95,656	77,708	91,067
55 to 59	66,749	80,962	104,155	98,119	81,582	96,954	88,938	89,670	90,834	107,208	94,535	55,497	91,466
60 to 64	82,217	58,752	86,862	80,616	88,589	81,890	91,212	89,490	99,532	108,680	111,027	105,799	91,297
65 to 69	116,932	54,861	32,390	116,851	0	82,349	82,731	90,997	72,436	95,522	90,568	123,014	86,491
70 & up	0	0	0	0	0	0	71,498	74,277	92,498	78,921	80,457	150,305	81,558
Total	72,096	75,459	76,829	83,901	83,695	87,596	91,743	92,709	93,637	101,241	98,680	112,717	86,629

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN COUNTY
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	10	1	3	1	0	0	0	0	0	0	0	0	15
25 to 29	6	11	12	6	2	4	0	0	0	0	0	0	41
30 to 34	2	8	9	5	6	26	2	0	0	0	0	0	58
35 to 39	2	4	2	0	6	13	27	7	0	0	0	0	61
40 to 44	0	0	1	1	1	6	20	21	1	0	0	0	51
45 to 49	1	0	1	0	0	3	23	16	19	5	0	0	68
50 to 54	0	0	3	1	0	6	3	13	3	9	0	0	38
55 to 59	0	0	0	0	0	5	1	3	2	3	1	0	15
60 to 64	0	0	0	0	0	1	1	3	0	0	0	0	5
65 to 69	0	0	0	0	0	1	0	1	0	0	1	0	3
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	24	31	14	15	65	77	64	25	17	2	0	355

**MARIN COUNTY
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	75,866	84,906	87,790	88,286	0	0	0	0	0	0	0	0	79,681
25 to 29	80,057	77,330	84,597	75,965	91,669	98,624	0	0	0	0	0	0	82,433
30 to 34	78,999	74,058	86,840	83,795	91,389	105,501	115,943	0	0	0	0	0	94,383
35 to 39	90,017	79,109	89,232	0	87,121	102,805	115,460	119,517	0	0	0	0	106,363
40 to 44	0	0	89,232	89,617	109,519	111,661	108,765	123,152	149,261	0	0	0	115,080
45 to 49	118,189	0	89,232	0	0	124,367	110,079	115,574	122,359	147,737	0	0	118,015
50 to 54	0	0	136,434	98,238	0	123,045	109,925	117,270	114,237	126,016	0	0	120,446
55 to 59	0	0	0	0	0	134,100	111,092	102,038	135,162	133,960	192,358	0	130,151
60 to 64	0	0	0	0	0	112,027	81,162	106,565	0	0	0	0	102,577
65 to 69	0	0	0	0	0	114,837	0	86,798	0	0	222,314	0	141,316
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	80,725	76,852	91,172	82,208	90,927	110,041	111,408	117,330	123,485	133,806	207,336	0	106,754

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE														Total
Age	Service													
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	
20 to 24	1	2	0	0	0	0	0	0	0	0	0	0	3	
25 to 29	3	2	0	0	0	0	0	0	0	0	0	0	5	
30 to 34	0	1	1	1	0	0	1	0	0	0	0	0	4	
35 to 39	5	3	0	1	0	3	7	0	0	0	0	0	19	
40 to 44	3	4	0	1	0	4	3	7	1	0	0	0	23	
45 to 49	3	0	0	0	0	3	5	5	0	0	0	0	16	
50 to 54	2	1	1	0	0	2	8	8	3	2	1	0	28	
55 to 59	1	1	1	0	0	3	14	6	3	3	1	2	35	
60 to 64	0	0	1	0	0	1	4	5	1	0	2	1	15	
65 to 69	0	0	0	0	1	0	1	0	1	0	0	0	3	
70 & up	0	0	0	0	0	3	2	0	0	1	0	0	6	
Total	18	14	4	3	1	19	45	31	9	6	4	3	157	

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE														Total
Age	Service													
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	
20 to 24	37,597	45,767	0	0	0	0	0	0	0	0	0	0	43,043	
25 to 29	49,861	55,375	0	0	0	0	0	0	0	0	0	0	52,066	
30 to 34	0	41,652	53,489	56,160	0	0	64,136	0	0	0	0	0	53,859	
35 to 39	45,600	105,170	0	67,392	0	70,560	62,954	0	0	0	0	0	66,487	
40 to 44	75,834	86,463	0	133,910	0	75,261	99,562	77,728	99,490	0	0	0	84,808	
45 to 49	106,083	0	0	0	0	87,023	83,658	71,555	0	0	0	0	84,711	
50 to 54	90,159	41,652	95,043	0	0	64,347	73,735	76,876	87,913	94,351	64,136	0	77,399	
55 to 59	68,079	87,984	48,146	0	0	105,536	76,976	73,784	112,662	96,391	64,136	77,909	82,523	
60 to 64	0	0	50,310	0	0	77,874	88,009	101,229	92,418	0	81,354	99,801	89,419	
65 to 69	0	0	0	0	45,182	0	57,077	0	79,955	0	0	0	60,738	
70 & up	0	0	0	0	0	81,765	80,288	0	0	71,448	0	0	79,553	
Total	67,185	73,924	61,747	85,821	45,182	81,172	76,867	79,540	97,065	91,554	72,745	85,206	77,901	

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE														
Age	Service													Total
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	3	0	2	0	0	0	0	0	0	0	0	0	5
30 to 34	0	1	1	2	1	2	0	0	0	0	0	0	0	7
35 to 39	0	1	0	1	0	6	2	0	0	0	0	0	0	10
40 to 44	0	0	0	0	0	3	3	2	0	0	0	0	0	8
45 to 49	0	0	0	1	1	5	1	3	1	0	0	0	0	12
50 to 54	0	0	0	0	0	0	2	3	1	0	0	0	0	6
55 to 59	0	0	1	0	0	1	0	0	0	1	0	0	0	3
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	2	6	2	17	8	8	2	1	0	0	0	51

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	76,893	0	90,214	0	0	0	0	0	0	0	0	82,222
30 to 34	0	86,315	93,737	95,601	91,477	99,513	0	0	0	0	0	0	94,537
35 to 39	0	74,780	0	101,122	0	96,112	102,271	0	0	0	0	0	95,712
40 to 44	0	0	0	0	0	110,882	118,056	124,681	0	0	0	0	117,022
45 to 49	0	0	0	92,171	86,545	108,165	122,805	104,787	113,327	0	0	0	105,836
50 to 54	0	0	0	0	0	0	103,574	115,150	115,662	0	0	0	111,377
55 to 59	0	0	169,000	0	0	121,747	0	0	0	113,273	0	0	134,673
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	78,355	131,369	94,154	89,011	104,171	111,083	113,647	114,495	113,273	0	0	104,088

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	1	0	0	0	0	0	0	0	0	0	1
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	1	2	0	0	0	0	0	3
45 to 49	0	0	0	0	0	0	2	0	0	0	0	0	2
50 to 54	1	1	0	0	0	0	0	0	0	0	0	0	2
55 to 59	0	0	0	0	0	0	0	1	0	0	0	0	1
60 to 64	0	0	0	0	0	0	1	0	0	0	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	1	0	0	1	5	1	0	0	0	0	10

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	54,332	0	0	0	0	0	0	0	0	0	54,332
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	142,173	78,596	0	0	0	0	0	99,788
45 to 49	0	0	0	0	0	0	100,541	0	0	0	0	0	100,541
50 to 54	46,490	59,490	0	0	0	0	0	0	0	0	0	0	52,990
55 to 59	0	0	0	0	0	0	0	96,037	0	0	0	0	96,037
60 to 64	0	0	0	0	0	0	157,982	0	0	0	0	0	157,982
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	46,490	59,490	54,332	0	0	142,173	103,251	96,037	0	0	0	0	91,478

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE														
Age	Service													Total
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	1	1	0	0	0	0	0	0	0	0	0	2
30 to 34	0	0	0	1	0	0	0	0	0	0	0	0	0	1
35 to 39	0	0	0	1	0	2	2	3	0	0	0	0	0	8
40 to 44	0	0	0	1	0	4	11	8	0	0	0	0	0	24
45 to 49	0	1	0	0	0	0	3	10	3	2	0	0	0	19
50 to 54	0	1	0	0	0	0	1	0	1	2	1	0	0	6
55 to 59	0	0	0	0	0	0	1	3	0	0	0	0	0	4
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	1	4	0	6	18	24	4	4	1	0	0	64

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	113,274	113,274	0	0	0	0	0	0	0	0	113,274
30 to 34	0	0	0	114,468	0	0	0	0	0	0	0	0	114,468
35 to 39	0	0	0	114,468	0	114,468	114,715	119,602	0	0	0	0	116,455
40 to 44	0	0	0	113,274	0	114,169	117,078	121,573	0	0	0	0	117,933
45 to 49	0	115,079	0	0	0	0	119,730	123,074	137,840	155,120	0	0	127,830
50 to 54	0	114,550	0	0	0	0	175,223	0	170,695	150,580	223,006	0	164,106
55 to 59	0	0	0	0	0	0	115,153	118,984	0	0	0	0	118,026
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	114,815	113,274	113,871	0	114,269	120,381	121,628	146,054	152,850	223,006	0	124,821

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	3	2	0	0	0	0	0	0	0	0	0	0	5
25 to 29	5	8	2	4	0	1	0	0	0	0	0	0	20
30 to 34	5	0	3	1	2	2	2	0	0	0	0	0	15
35 to 39	3	1	2	1	4	4	1	2	0	0	0	0	18
40 to 44	3	2	1	1	1	10	7	5	0	0	0	0	30
45 to 49	1	2	1	2	0	2	8	10	1	1	0	0	28
50 to 54	2	1	1	0	1	5	2	11	3	4	4	0	34
55 to 59	3	1	2	0	0	4	5	6	3	2	1	0	27
60 to 64	0	0	0	1	0	6	11	5	2	2	1	0	28
65 to 69	0	0	0	0	0	0	2	3	0	0	0	0	5
70 & up	0	0	0	0	1	0	0	0	0	1	0	0	2
Total	25	17	12	10	9	34	38	42	9	10	6	0	212

**CITY OF SAN RAFAEL
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	69,304	43,908	0	0	0	0	0	0	0	0	0	0	59,146
25 to 29	47,981	59,839	53,007	59,548	0	47,054	0	0	0	0	0	0	55,494
30 to 34	79,217	0	73,311	58,130	35,427	82,495	79,467	0	0	0	0	0	71,262
35 to 39	61,666	54,737	85,127	62,537	53,741	90,637	81,939	47,742	0	0	0	0	68,192
40 to 44	92,218	118,297	50,934	61,796	68,991	81,138	67,150	81,641	0	0	0	0	79,487
45 to 49	54,769	118,872	80,478	90,451	0	70,399	84,099	70,929	109,493	84,291	0	0	81,091
50 to 54	78,250	130,143	70,941	0	118,365	111,216	80,993	79,816	70,600	84,005	78,407	0	86,277
55 to 59	56,765	179,069	81,871	0	0	84,679	79,720	66,588	68,439	91,553	104,754	0	79,375
60 to 64	0	0	0	68,426	0	98,777	91,815	90,434	77,084	52,903	69,869	0	87,609
65 to 69	0	0	0	0	0	0	58,003	89,038	0	0	0	0	76,624
70 & up	0	0	0	0	27,729	0	0	0	0	74,256	0	0	50,993
Total	67,485	82,636	71,858	66,998	55,656	88,654	80,797	76,423	75,642	78,348	81,375	0	77,226

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF POLICE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

COUNTS BY AGE/SERVICE														
Age	Service													Total
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	2	3	0	0	0	0	0	0	0	0	0	0	0	5
25 to 29	3	5	1	3	2	0	0	0	0	0	0	0	0	14
30 to 34	2	3	2	2	4	1	4	0	0	0	0	0	0	18
35 to 39	0	0	0	0	1	1	3	1	0	0	0	0	0	6
40 to 44	0	0	0	0	0	1	12	2	1	0	0	0	0	16
45 to 49	0	0	0	0	0	0	6	5	2	1	0	0	0	14
50 to 54	0	0	0	0	0	0	0	3	0	2	0	0	0	5
55 to 59	0	0	0	0	0	1	0	1	0	1	0	0	0	3
60 to 64	0	0	0	0	0	0	1	0	0	0	0	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	11	3	5	7	4	26	12	3	4	0	0	0	82

**CITY OF SAN RAFAEL
DISTRIBUTION OF POLICE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	82,257	82,556	0	0	0	0	0	0	0	0	0	0	82,436
25 to 29	77,652	90,152	84,347	95,993	100,603	0	0	0	0	0	0	0	89,803
30 to 34	92,055	89,504	99,454	103,303	100,423	110,307	110,275	0	0	0	0	0	100,624
35 to 39	0	0	0	0	100,454	110,806	113,827	139,552	0	0	0	0	115,382
40 to 44	0	0	0	0	0	117,444	118,824	117,143	121,113	0	0	0	118,671
45 to 49	0	0	0	0	0	0	114,927	129,998	134,674	147,050	0	0	125,425
50 to 54	0	0	0	0	0	0	0	132,165	0	139,458	0	0	135,082
55 to 59	0	0	0	0	0	179,069	0	133,464	0	111,663	0	0	141,399
60 to 64	0	0	0	0	0	0	112,098	0	0	0	0	0	112,098
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	83,083	87,904	94,418	98,917	100,479	129,406	115,774	129,482	130,153	134,407	0	0	110,236

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF FIRE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	1	0	0	1	0	0	0	0	0	0	0	2
30 to 34	1	0	1	0	1	9	2	0	0	0	0	0	14
35 to 39	0	1	0	0	1	6	0	2	0	0	0	0	10
40 to 44	0	0	0	0	1	1	2	4	0	0	0	0	8
45 to 49	0	0	0	0	0	1	3	3	2	0	0	0	9
50 to 54	0	0	0	0	0	1	3	1	1	0	0	0	6
55 to 59	0	0	0	0	0	0	0	1	1	2	0	0	4
60 to 64	0	0	0	0	0	1	0	0	0	0	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	1	0	4	19	10	11	4	2	0	0	54

**CITY OF SAN RAFAEL
DISTRIBUTION OF FIRE ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2017**

AVERAGE PAY BY AGE/SERVICE													
Age	Service												
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	83,627	0	0	111,695	0	0	0	0	0	0	0	97,661
30 to 34	78,305	0	97,204	0	120,463	125,821	125,713	0	0	0	0	0	119,985
35 to 39	0	96,127	0	0	118,137	126,190	0	159,469	0	0	0	0	129,034
40 to 44	0	0	0	0	115,145	123,048	138,612	136,952	0	0	0	0	132,903
45 to 49	0	0	0	0	0	137,469	133,300	129,719	131,152	0	0	0	132,092
50 to 54	0	0	0	0	0	115,348	133,908	140,439	162,678	0	0	0	136,698
55 to 59	0	0	0	0	0	0	0	126,774	116,739	137,319	0	0	129,538
60 to 64	0	0	0	0	0	181,171	0	0	0	0	0	0	181,171
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	78,305	89,877	97,204	0	116,360	128,767	133,027	138,465	135,430	137,319	0	0	128,463

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	1,682	195	231	175	31	85	1,447	254	4,100
New Entrants	187	0	0	0	0	0	0	0	187
Rehires	7	(1)	0	(5)	0	0	0	0	1
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(66)	(7)	(3)	(7)	0	0	83	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(29)	(2)	0	31	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(3)	0	0	0	0	(1)	(15)	19	0
Non-Vested Terminations and Death without beneficiary	(58)	(1)	57	0	0	0	(34)	0	(36)
Transfers	(5)	14	(6)	(1)	0	0	0	0	2
Beneficiary Deaths	0	0	0	0	0	0	0	(12)	(12)
Domestic Relations Orders	0	0	0	2	0	0	0	2	4
Withdrawals Paid	(15)	(1)	(15)	(2)	0	0	0	0	(33)
Data Corrections	0	(6)	0	1	(2)	2	0	1	(4)
June 30, 2017	1,700	191	264	194	29	86	1,481	264	4,209

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	357	68	22	21	7	101	234	63	873
New Entrants	21	0	0	0	0	0	0	0	21
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	(1)	0	(1)	(1)	0	3	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(14)	(7)	0	(2)	0	0	21	2	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(3)	0	0	3	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(2)	3	0
Non-Vested Terminations and Death without beneficiary	(2)	0	2	0	0	0	(1)	0	(1)
Transfers	(2)	3	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	(4)	(4)
Domestic Relations Orders	0	0	0	1	0	0	0	1	2
Withdrawals Paid	(1)	0	0	(3)	0	0	0	0	(4)
Data Corrections	0	0	0	(1)	(1)	2	(1)	0	(1)
June 30, 2017	355	64	23	18	6	105	251	65	887

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin Special Districts Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	153	24	30	16	3	3	120	12	361
New Entrants	20	0	0	0	0	0	0	0	20
Rehires	1	0	0	(1)	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(5)	0	0	(1)	0	0	6	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(5)	(1)	0	6	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(4)	0	4	0	0	0	(3)	0	(3)
Transfers	(1)	1	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	1	1
Withdrawals Paid	(2)	0	0	0	0	0	0	0	(2)
Data Corrections	0	(1)	0	0	(1)	1	0	0	(1)
June 30, 2017	157	23	34	20	2	4	123	13	376

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin Special Districts Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	51	16	1	4	1	16	24	9	122
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	1	0	0	(1)	0	0	0	0	0
Duty Disabilities	(1)	0	0	0	0	1	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	0	(1)	0	0	0	0	1	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	(1)	0	0	1	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	(1)	0	0	0	0	(1)
Data Corrections	0	(1)	0	0	1	0	(1)	0	(1)
June 30, 2017	51	14	1	2	1	17	24	10	120

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County and Special Districts All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	2,243	303	284	216	42	205	1,825	338	5,456
New Entrants	228	0	0	0	0	0	0	0	228
Rehires	9	(1)	0	(7)	0	0	0	0	1
Duty Disabilities	(2)	0	(1)	(1)	0	4	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(85)	(15)	(3)	(10)	0	0	111	2	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(37)	(3)	0	40	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(3)	0	0	0	(1)	(2)	(17)	23	0
Non-Vested Terminations and Death without beneficiary	(64)	(1)	63	0	0	0	(38)	0	(40)
Transfers	(8)	18	(6)	(1)	0	0	0	0	3
Beneficiary Deaths	0	0	0	0	0	0	0	(16)	(16)
Domestic Relations Orders	0	0	0	3	0	0	0	4	7
Withdrawals Paid	(18)	(1)	(15)	(6)	0	0	0	0	(40)
Data Corrections	0	(8)	0	0	(3)	5	(2)	1	(7)
June 30, 2017	2,263	292	322	234	38	212	1,879	352	5,592

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	10	1	0	1	0	0	4	1	17
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	0	0	0	0	0	0	0	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0	0	0
June 30, 2017	10	1	0	1	0	0	4	1	17

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	67	10	3	3	0	31	52	15	181
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(2)	0	0	0	0	0	2	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(1)	0	1	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	(1)	(1)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	(1)	0	0	0	0	(1)
Data Corrections	0	0	0	0	0	0	0	0	0
June 30, 2017	64	10	4	2	0	31	54	14	179

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	77	11	3	4	0	31	56	16	198
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(2)	0	0	0	0	0	2	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(1)	0	1	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	(1)	(1)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	(1)	0	0	0	0	(1)
Data Corrections	0	0	0	0	0	0	0	0	0
June 30, 2017	74	11	4	3	0	31	58	15	196

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	221	66	55	24	2	17	234	35	654
New Entrants	23	0	0	0	0	0	0	0	23
Rehires	1	0	0	0	0	0	0	0	1
Duty Disabilities	(1)	0	0	0	0	1	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(10)	(2)	0	(2)	0	0	14	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(4)	(1)	0	5	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(11)	0	11	0	0	0	(1)	0	(1)
Transfers	(3)	9	0	0	0	0	0	0	6
Beneficiary Deaths	0	0	0	0	0	0	0	(4)	(4)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	(4)	0	(2)	0	0	0	0	0	(6)
Data Corrections	0	(3)	0	0	0	0	0	0	(3)
June 30, 2017	212	69	64	27	2	18	247	31	670

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Police

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	83	20	9	5	0	39	77	15	248
New Entrants	8	0	0	0	0	0	0	0	8
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(1)	0	0	0	0	0	1	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(2)	0	0	2	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	(1)	1	0
Non-Vested Terminations and Death without beneficiary	(6)	0	6	0	0	(1)	0	0	(1)
Transfers	1	0	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	(1)	(2)	0	0	0	0	0	(3)
Data Corrections	(1)	(1)	0	0	0	0	0	0	(2)
June 30, 2017	82	18	13	7	0	38	77	16	251

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Fire

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	53	7	4	2	0	21	82	22	191
New Entrants	1	0	0	0	0	0	0	0	1
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	0	(2)	0	(1)	0	0	3	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	(1)	1	0
Non-Vested Terminations and Death without beneficiary	(1)	0	1	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	(1)	(1)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	1	1	0	0	0	0	0	0	2
June 30, 2017	54	6	5	1	0	21	84	22	193

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2016	357	93	68	31	2	77	393	72	1,093
New Entrants	32	0	0	0	0	0	0	0	32
Rehires	1	0	0	0	0	0	0	0	1
Duty Disabilities	(1)	0	0	0	0	1	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(11)	(4)	0	(3)	0	0	18	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(6)	(1)	0	7	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	(2)	2	0
Non-Vested Terminations and Death without beneficiary	(18)	0	18	0	0	(1)	(1)	0	(2)
Transfers	(2)	9	0	0	0	0	0	0	7
Beneficiary Deaths	0	0	0	0	0	0	0	(5)	(5)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	(4)	(1)	(4)	0	0	0	0	0	(9)
Data Corrections	0	(3)	0	0	0	0	0	0	(3)
June 30, 2017	348	93	82	35	2	77	408	69	1,114

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: Marin County and Special Districts					
Status	Marin County		Marin Special Districts		Total
	Misc	Safety	Misc	Safety	
Service Retired					
Option 1 - Cash Refund Annuity	57	2	4	0	63
Option 2 - J&S 100%	69	22	9	4	104
Option 3 - J&S 50%	8	2	0	1	11
Option 4	1	0	0	0	1
Unmodified Benefit Option	1,346	225	110	18	1,699
Unmodified Option - Service Connected Disability	0	0	0	1	1
(missing)	0	0	0	0	0
Total Service Retired	1,481	251	123	24	1,879
Ordinary Disability					
Option 1 - Cash Refund Annuity	3	0	0	0	3
Option 2 - J&S 100%	1	0	0	0	1
Option 3 - J&S 50%	0	0	0	0	0
Option 4	0	0	0	0	0
Unmodified Benefit Option	24	6	2	1	33
Unmodified Option - Service Connected Disability	1	0	0	0	1
(missing)	0	0	0	0	0
Total Ordinary Disability	29	6	2	1	38
Duty Disability					
Option 1 - Cash Refund Annuity	1	2	1	0	4
Option 2 - J&S 100%	0	1	0	1	2
Option 3 - J&S 50%	1	1	0	0	2
Option 4	0	0	0	0	0
Unmodified Benefit Option	3	6	1	0	10
Unmodified Option - Service Connected Disability	81	95	2	16	194
(missing)	0	0	0	0	0
Total Duty Disability	86	105	4	17	212
Total	1,596	362	129	42	2,129

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: Novato Fire Protection District			
Status	Miscellaneous	Safety	Total
Service Retired			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	1	1
Option 3 - J&S 50%	1	0	1
Option 4	0	0	0
Unmodified Benefit Option	3	53	56
Unmodified Option - Service Connected Disability	0	0	0
(missing)	0	0	0
Total Service Retired	4	54	58
Ordinary Disability			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	0	0
Option 3 - J&S 50%	0	0	0
Option 4	0	0	0
Unmodified Benefit Option	0	0	0
Unmodified Option - Service Connected Disability	0	0	0
(missing)	0	0	0
Total Ordinary Disability	0	0	0
Duty Disability			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	0	0
Option 3 - J&S 50%	0	0	0
Option 4	0	0	0
Unmodified Benefit Option	0	1	1
Unmodified Option - Service Connected Disability	0	30	30
(missing)	0	0	0
Total Duty Disability	0	31	31
Total	4	85	89

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: City of San Rafael				
	Miscellaneous	Police	Fire	Total
Service Retired				
Option 1 - Cash Refund Annuity	5	1	0	6
Option 2 - J&S 100%	21	13	4	38
Option 3 - J&S 50%	2	0	0	2
Option 4	0	0	0	0
Unmodified Benefit Option	219	62	80	361
Unmodified Option - Service Connected Disability	0	0	0	0
(missing)	0	1	0	1
Total Service Retired	247	77	84	408
Ordinary Disability				
Option 1 - Cash Refund Annuity	0	0	0	0
Option 2 - J&S 100%	0	0	0	0
Option 3 - J&S 50%	0	0	0	0
Option 4	0	0	0	0
Unmodified Benefit Option	2	0	0	2
Unmodified Option - Service Connected Disability	0	0	0	0
(missing)	0	0	0	0
Total Ordinary Disability	2	0	0	2
Duty Disability				
Option 1 - Cash Refund Annuity	1	1	0	2
Option 2 - J&S 100%	0	0	0	0
Option 3 - J&S 50%	0	0	0	0
Option 4	0	0	0	0
Unmodified Benefit Option	1	0	0	1
Unmodified Option - Service Connected Disability	16	37	21	74
(missing)	0	0	0	0
Total Duty Disability	18	38	21	77
Total	267	115	105	487

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Marin County and Special Districts: Service Retired

Age	Marin County				Marin Special Districts				Total	
	<u>Miscellaneous</u>		<u>Safety</u>		<u>Miscellaneous</u>		<u>Safety</u>		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	1	\$67,203	0	\$0	0	\$0	1	\$67,203
45 to 49	0	\$0	3	\$32,014	0	\$0	0	\$0	3	\$32,014
50 to 54	21	\$18,604	26	\$49,618	1	\$3,025	2	\$38,159	50	\$35,202
55 to 59	81	\$25,731	62	\$69,362	18	\$31,766	3	\$50,388	164	\$43,339
60 to 64	184	\$35,983	66	\$79,578	25	\$39,105	13	\$82,937	288	\$48,364
65 to 69	339	\$37,776	34	\$68,229	33	\$39,572	3	\$75,408	409	\$40,729
70 to 74	331	\$40,640	27	\$62,941	27	\$37,079	2	\$53,767	387	\$42,015
75 to 79	230	\$40,880	20	\$89,826	14	\$43,443	1	\$152,476	265	\$45,130
80 to 84	155	\$33,105	9	\$51,851	2	\$25,026	0	\$0	166	\$34,024
85 to 89	86	\$33,757	3	\$45,814	2	\$27,086	0	\$0	91	\$34,008
90 to 94	46	\$25,256	0	\$0	1	\$19,710	0	\$0	47	\$25,138
95+	8	\$25,052	0	\$0	0	\$0	0	\$0	8	\$25,052
<Total>	1,481	\$36,565	251	\$69,425	123	\$37,330	24	\$74,662	1,879	\$41,491

Marin County and Special Districts: Duty Disabled

Age	Marin County				Marin Special Districts				Total	
	<u>Miscellaneous</u>		<u>Safety</u>		<u>Miscellaneous</u>		<u>Safety</u>		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	1	\$49,201	0	\$0	0	\$0	1	\$49,201
35 to 39	0	\$0	3	\$48,627	0	\$0	0	\$0	3	\$48,627
40 to 44	1	\$29,515	3	\$48,787	0	\$0	0	\$0	4	\$43,969
45 to 49	3	\$30,013	6	\$43,301	1	\$14,392	1	\$44,985	11	\$37,202
50 to 54	3	\$31,686	20	\$51,081	0	\$0	1	\$55,863	24	\$48,856
55 to 59	11	\$33,777	14	\$42,495	0	\$0	2	\$51,168	27	\$39,585
60 to 64	17	\$31,378	14	\$66,484	0	\$0	3	\$69,660	34	\$49,211
65 to 69	17	\$38,444	13	\$51,790	0	\$0	4	\$46,560	34	\$44,502
70 to 74	14	\$39,625	15	\$57,035	3	\$23,169	5	\$56,581	37	\$47,640
75 to 79	13	\$35,768	10	\$56,827	0	\$0	1	\$38,344	24	\$44,650
80 to 84	6	\$55,737	4	\$43,524	0	\$0	0	\$0	10	\$50,852
85 to 89	1	\$15,578	1	\$32,219	0	\$0	0	\$0	2	\$23,898
90 to 94	0	\$0	1	\$30,611	0	\$0	0	\$0	1	\$30,611
95+	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	86	\$36,545	105	\$52,215	4	\$20,975	17	\$54,097	212	\$45,420

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Marin County and Special Districts: Ordinary Disabled

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	1	\$35,795	0	\$0	0	\$0	1	\$35,795
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
50 to 54	1	\$23,841	1	\$27,112	1	\$35,890	0	\$0	3	\$28,948
55 to 59	1	\$21,321	2	\$45,652	0	\$0	1	\$71,260	4	\$45,971
60 to 64	6	\$25,023	1	\$131,374	0	\$0	0	\$0	7	\$40,216
65 to 69	3	\$19,363	0	\$0	0	\$0	0	\$0	3	\$19,363
70 to 74	13	\$19,972	1	\$25,201	1	\$13,844	0	\$0	15	\$19,912
75 to 79	3	\$15,542	0	\$0	0	\$0	0	\$0	3	\$15,542
80 to 84	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
85 to 89	1	\$2,812	0	\$0	0	\$0	0	\$0	1	\$2,812
90 to 94	1	\$56,106	0	\$0	0	\$0	0	\$0	1	\$56,106
95+	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	29	\$21,330	6	\$51,798	2	\$24,867	1	\$71,260	38	\$27,641

Marin County and Special Districts: Beneficiaries

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	2	\$37,975	0	\$0	0	\$0	0	\$0	2	\$37,975
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	1	\$31,943	1	\$28,749	0	\$0	0	\$0	2	\$30,346
40 to 44	5	\$16,738	0	\$0	1	\$14,392	1	\$44,035	7	\$20,302
45 to 49	2	\$19,107	1	\$11,480	2	\$13,864	0	\$0	5	\$15,484
50 to 54	8	\$20,394	8	\$44,413	1	\$8,428	1	\$34,371	18	\$31,181
55 to 59	15	\$14,604	6	\$37,510	1	\$8,428	2	\$61,210	24	\$23,957
60 to 64	26	\$26,485	9	\$27,718	1	\$34,697	1	\$59,028	37	\$27,887
65 to 69	36	\$26,947	9	\$39,501	0	\$0	2	\$32,880	47	\$29,604
70 to 74	33	\$24,669	11	\$62,762	3	\$12,439	1	\$49,591	48	\$33,153
75 to 79	34	\$25,927	7	\$29,893	2	\$16,197	1	\$36,614	44	\$26,358
80 to 84	38	\$28,436	5	\$35,013	1	\$25,683	0	\$0	44	\$29,121
85 to 89	29	\$21,437	5	\$24,090	1	\$4,542	1	\$7,629	36	\$20,953
90 to 94	23	\$21,980	2	\$51,620	0	\$0	0	\$0	25	\$24,351
95+	12	\$13,339	1	\$30,825	0	\$0	0	\$0	13	\$14,684
<Total>	264	\$23,993	65	\$39,304	13	\$14,893	10	\$41,945	352	\$26,994

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Novato Fire Protection District: Service Retired

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	1	\$58,821	1	\$58,821
50 to 54	0	\$0	4	\$140,981	4	\$140,981
55 to 59	1	\$9,891	6	\$89,997	7	\$78,553
60 to 64	1	\$27,787	10	\$111,578	11	\$103,961
65 to 69	1	\$23,120	13	\$87,973	14	\$83,341
70 to 74	0	\$0	13	\$111,310	13	\$111,310
75 to 79	1	\$101,730	6	\$91,884	7	\$93,291
80 to 84	0	\$0	1	\$9,284	1	\$9,284
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	4	\$40,632	54	\$100,551	58	\$96,419

Novato Fire Protection District: Duty Disabled

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	1	\$83,505	1	\$83,505
55 to 59	0	\$0	2	\$46,830	2	\$46,830
60 to 64	0	\$0	5	\$77,004	5	\$77,004
65 to 69	0	\$0	6	\$72,278	6	\$72,278
70 to 74	0	\$0	9	\$74,140	9	\$74,140
75 to 79	0	\$0	7	\$50,455	7	\$50,455
80 to 84	0	\$0	1	\$73,105	1	\$73,105
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	0	\$0	31	\$67,400	31	\$67,400

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Novato Fire Protection District: Ordinary Disabled

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	0	\$0	0	\$0
55 to 59	0	\$0	0	\$0	0	\$0
60 to 64	0	\$0	0	\$0	0	\$0
65 to 69	0	\$0	0	\$0	0	\$0
70 to 74	0	\$0	0	\$0	0	\$0
75 to 79	0	\$0	0	\$0	0	\$0
80 to 84	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	0	\$0	0	\$0	0	\$0

Novato Fire Protection District: Surviving Beneficiaries

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	1	\$73,944	1	\$73,944
50 to 54	1	\$11,544	2	\$29,466	3	\$23,492
55 to 59	0	\$0	3	\$38,262	3	\$38,262
60 to 64	0	\$0	1	\$40,236	1	\$40,236
65 to 69	0	\$0	5	\$41,059	5	\$41,059
70 to 74	0	\$0	2	\$52,203	2	\$52,203
75 to 79	0	\$0	0	\$0	0	\$0
80 to 84	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	1	\$11,544	14	\$42,686	15	\$40,610

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

City of San Rafael: Service Retired

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0	0	\$0
50 to 54	8	\$14,492	6	\$25,924	5	\$103,750	19	\$41,591
55 to 59	17	\$49,208	11	\$58,525	18	\$80,715	46	\$63,765
60 to 64	54	\$44,437	19	\$67,250	20	\$114,801	93	\$64,230
65 to 69	62	\$42,652	19	\$93,530	9	\$118,103	90	\$60,938
70 to 74	47	\$34,436	14	\$70,379	12	\$84,940	73	\$49,631
75 to 79	24	\$30,263	3	\$43,516	9	\$62,869	36	\$39,519
80 to 84	19	\$26,023	4	\$58,162	6	\$67,621	29	\$39,063
85 to 89	8	\$24,809	1	\$93,700	4	\$59,978	13	\$40,930
90 to 94	6	\$8,477	0	\$0	0	\$0	6	\$8,477
95+	2	\$8,573	0	\$0	1	\$55,781	3	\$24,309
<Total>	247	\$36,851	77	\$68,784	84	\$90,679	408	\$53,960

City of San Rafael: Duty Disabled

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	5	\$58,906	0	\$0	5	\$58,906
40 to 44	0	\$0	1	\$57,352	0	\$0	1	\$57,352
45 to 49	1	\$34,782	3	\$46,742	1	\$49,105	5	\$44,823
50 to 54	2	\$37,454	2	\$47,370	1	\$59,352	5	\$45,800
55 to 59	1	\$10,358	2	\$43,056	0	\$0	3	\$32,156
60 to 64	2	\$15,052	5	\$78,075	4	\$98,030	11	\$73,873
65 to 69	5	\$30,184	8	\$66,327	5	\$84,691	18	\$61,388
70 to 74	4	\$31,054	6	\$46,651	8	\$87,023	18	\$61,128
75 to 79	3	\$30,662	5	\$36,991	1	\$103,168	9	\$42,234
80 to 84	0	\$0	1	\$26,154	1	\$33,387	2	\$29,771
85 to 89	0	\$0	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	18	\$28,738	38	\$54,867	21	\$83,656	77	\$56,611

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

City of San Rafael: Ordinary Disabled

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	0	\$0	0	\$0	0	\$0
55 to 59	0	\$0	0	\$0	0	\$0	0	\$0
60 to 64	0	\$0	0	\$0	0	\$0	0	\$0
65 to 69	0	\$0	0	\$0	0	\$0	0	\$0
70 to 74	0	\$0	0	\$0	0	\$0	0	\$0
75 to 79	1	\$15,943	0	\$0	0	\$0	1	\$15,943
80 to 84	0	\$0	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0	0	\$0
90 to 94	1	\$8,199	0	\$0	0	\$0	1	\$8,199
95+	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	2	\$12,071	0	\$0	0	\$0	2	\$12,071

City of San Rafael: Surviving Beneficiaries

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	1	\$20,954	0	\$0	1	\$20,954
50 to 54	2	\$6,530	1	\$54,436	1	\$17,614	4	\$21,278
55 to 59	3	\$14,325	1	\$16,098	3	\$28,892	7	\$20,822
60 to 64	2	\$3,134	3	\$15,566	4	\$66,378	9	\$35,386
65 to 69	2	\$11,083	3	\$28,612	1	\$95,773	6	\$33,962
70 to 74	6	\$39,732	2	\$29,163	2	\$26,475	10	\$34,967
75 to 79	4	\$11,050	2	\$72,200	3	\$33,058	9	\$31,975
80 to 84	5	\$24,222	1	\$53,928	3	\$29,253	9	\$29,200
85 to 89	4	\$13,889	2	\$22,645	5	\$30,583	11	\$23,069
90 to 94	3	\$8,638	0	\$0	0	\$0	3	\$8,638
95+	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	31	\$18,376	16	\$32,873	22	\$39,017	69	\$28,319

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Plan	Retirement Eligibility								
	Number Reaching Service Retirement Eligibility								
	As Defined in Section 1.1 in Year(s)								
	Current Actives	0	1	2	3	4	5	6-10	Total
County									
Miscellaneous Tier 1	10	10	0	0	0	0	0	0	10
Miscellaneous Tier 2	43	41	2	0	0	0	0	0	43
Miscellaneous Tier 3	833	512	51	26	23	28	27	97	764
Miscellaneous Tier 3A	108	4	2	14	10	7	10	15	62
Miscellaneous Tier 4	136	0	2	2	3	2	12	49	70
Miscellaneous Tier 5	570	18	14	27	24	42	42	48	215
Safety Tier 1A	1	1	0	0	0	0	0	0	1
Safety Tier 2A	55	24	1	4	2	6	1	6	44
Safety Tier 2B	208	57	12	16	10	6	15	53	169
Safety Tier 3	91	0	0	1	2	0	0	2	5
Total County	2,055	667	84	90	74	91	107	270	1,383
Courts									
Courts Tier 1	1	1	0	0	0	0	0	0	1
Courts Tier 2	1	0	1	0	0	0	0	0	1
Courts Tier 3	70	44	1	1	2	4	3	7	62
Courts Tier 4	4	1	0	1	0	0	0	0	2
Courts Tier 5	25	0	1	0	3	1	2	3	10
Total Courts	101	46	3	2	5	5	5	10	76
Special Districts									
South Marin Fire Miscellaneous	3	1	0	0	1	0	0	1	3
South Marin Fire Safety	51	14	1	5	1	2	2	8	33
Mosquito District	33	17	1	0	1	0	2	9	30
LAFCO	3	0	0	0	1	0	0	1	2
Tamalpais CSD	12	8	0	0	0	0	1	1	10
Marin CSD	5	1	0	0	0	0	1	1	3
Total Special Districts	107	41	2	5	4	2	6	21	81
Total County and Special Districts	2,263	754	89	97	83	98	118	301	1,540
Novato									
Miscellaneous	10	2	1	1	0	0	0	5	9
Safety	64	18	4	4	5	6	6	15	58
Total Novato	74	20	5	5	5	6	6	20	67
San Rafael									
Miscellaneous Tier 1	135	71	6	12	3	6	5	21	124
Miscellaneous Tier 2	18	1	1	0	0	0	2	5	9
Miscellaneous Tier 3	59	0	0	1	3	2	4	6	16
Fire Tier 1	39	11	3	2	5	2	3	7	33
Fire Tier 2	15	0	0	0	0	0	0	1	1
Safety Tier 1	46	17	1	3	2	2	6	15	46
Safety Tier 2	5	0	0	0	0	0	1	0	1
Safety Tier 3	31	0	0	0	0	0	0	0	0
Total San Rafael	348	100	11	18	13	12	21	55	230

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of June 30, 2017 are:

Actuarial Methods

1. Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred from outside of MCERA, entry age is based on entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of MCERA. Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period (13 years remaining as of June 30, 2017), except for the additional UAL attributable to the extraordinary loss from 2008-2009, which is being amortized over a separate closed period (21 years as of June 30, 2017).

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 five-year phase-in/out (three years for assumption changes) of the payments/credits for each annual layer.

2. Valuation of Assets

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 Assumptions

3. Rate of Return

Assets are assumed to earn 7.00% net of investment, but not administrative expenses.

4. Administrative Expenses

Administrative expenses are assumed to be \$4.917 million for the next year, to be split between employees and employers based on their share of the overall contributions. Administrative expenses are assumed to increase by 3.0% per year.

5. Cost-of-Living

The cost-of-living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.75% per year.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

6. Post Retirement COLA

Post retirement COLAs are assumed at the rate of 2.7% for members with a 4% COLA cap, 2.6% for members with a 3% COLA cap, and 1.9% for members with a 2% COLA cap.

7. Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit at the time of retirement.

8. Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is reflected in the valuation to project compensation and benefits. The limit is expected to increase by 2.75% in future years.

9. PEPPRA Compensation Limit

The PEPPRA Pensionable Compensation Limit (GC 7522.10) is reflected in the valuation to project compensation and benefits for PEPPRA members. The limit is expected to increase by 2.75% in future years.

10. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 7.00%.

11. Sick Leave Service Credit Upon Retirement

Active members' benefits are adjusted by a percentage, in accordance with the table below, for anticipated conversions of sick leave or other terminal earnings to retirement service credit or final compensation.

	Rate
Marin County	2.00%
Marin Courts	2.00%
Marin Special Districts	2.00%
Novato Fire Protection District	3.00%
City of San Rafael	2.50%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

12. Family Composition

Percentage married for all active members who retire, become disabled, or die during active service is shown in the table below. Male members are assumed to be three years older than their spouses and female members are assumed to be one year younger than their spouses.

Percentage Married	
Class and Gender	Percentage
Miscellaneous Males	75%
Miscellaneous Females	55%
Safety Males	85%
Safety Females	55%

13. Increases in Pay

Wage inflation component: 3.00%

Additional longevity and promotion component:

Service	Miscellaneous	Safety
0	6.00%	5.00%
1	6.00%	5.00%
2	5.00%	4.50%
3	4.00%	4.00%
4	3.00%	3.50%
5	2.25%	3.00%
6	1.75%	2.50%
7	1.40%	2.20%
8	1.20%	1.90%
9	1.00%	1.70%
10	0.85%	1.50%
11	0.75%	1.40%
12	0.75%	1.30%
13+	0.75%	1.25%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

14. Rates of Termination (All Types)

Sample rates of termination are shown in the following tables below. Note that termination rates do not apply once a member is eligible for retirement.

Termination

Sample Rates (less than five years of service)

Service	Miscellaneous		Safety
	Male	Female	
0	15.00%	15.00%	8.00%
1	9.00%	10.00%	5.00%
2	7.00%	8.00%	4.00%
3	7.00%	8.00%	4.00%
4	7.00%	8.00%	4.00%

Age	5-9 Years of Service	Miscellaneous			Safety		
		Male	15-29 Years of Service	Females	15-29 Years of Service	5-19 Years of Service	5-19 Years of Service
		10-14 Years of Service		10-14 Years of Service			
20	7.00%	5.30%	3.00%	7.75%	5.30%	3.00%	2.06%
25	7.00%	5.30%	3.00%	7.75%	5.30%	3.00%	2.24%
30	7.00%	5.30%	3.00%	7.75%	5.30%	3.00%	3.53%
35	6.75%	4.50%	2.50%	7.75%	4.50%	2.50%	3.41%
40	4.80%	3.20%	2.00%	5.80%	3.20%	2.00%	1.14%
45	3.75%	2.50%	1.70%	4.75%	2.50%	1.70%	1.70%
50	2.10%	0.00%	0.00%	3.10%	0.00%	0.00%	0.27%
55	1.20%	0.00%	0.00%	2.20%	0.00%	0.00%	0.10%
60	1.20%	0.00%	0.00%	2.20%	0.00%	0.00%	0.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

15. Withdrawal, Reciprocal Transfers, and Vested Termination

The following rates apply to active members who terminate their employment. Members, who withdraw their member contributions, forfeit entitlement to future Plan benefits.

Service	Miscellaneous			Safety		
	Withdrawal	Reciprocal	Vested Term	Withdrawal	Reciprocal	Vested Term
0	50.00%	15.00%	35.00%	25.00%	45.00%	30.00%
1	40.00%	18.00%	42.00%	25.00%	45.00%	30.00%
2	20.00%	24.00%	56.00%	25.00%	45.00%	30.00%
3	20.00%	24.00%	56.00%	25.00%	45.00%	30.00%
4	20.00%	24.00%	56.00%	25.00%	45.00%	30.00%
5	10.00%	27.00%	63.00%	25.00%	45.00%	30.00%
6	10.00%	27.00%	63.00%	25.00%	45.00%	30.00%
7	10.00%	27.00%	63.00%	25.00%	45.00%	30.00%
8	10.00%	27.00%	63.00%	25.00%	45.00%	30.00%
9	10.00%	27.00%	63.00%	25.00%	45.00%	30.00%
10+	10.00%	27.00%	63.00%	15.00%	51.00%	34.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

16. Rates of Disability

The rates of disability for Miscellaneous members are based on the 2017 CalPERS Public Agency Miscellaneous Ordinary Disability rates for males and females without adjustment.

The rates of disability for Safety members are based on adjusted 2017 CalPERS Public Agency Police Unisex Industrial and Ordinary Disability rates (multiplied by 0.6, and with a maximum rate of 1.25%).

50% of all Miscellaneous and 95% of all Safety disabilities are assumed to be service-connected. Sample *service-connected* disability rates of active participants are shown below.

Age	Miscellaneous		Safety
	Male	Female	
20	0.0085%	0.0050%	0.0057%
25	0.0085%	0.0050%	0.0998%
30	0.0095%	0.0120%	0.2827%
35	0.0195%	0.0355%	0.4663%
40	0.0510%	0.0675%	0.6498%
45	0.0755%	0.0940%	0.8333%
50	0.0790%	0.0995%	1.0978%
55	0.0790%	0.0745%	2.8016%
60	0.0765%	0.0525%	3.5477%
65	0.0640%	0.0440%	4.2619%

Sample *non service-connected* disability rates of active participants are shown below.

Age	Miscellaneous		Safety
	Male	Female	
20	0.0085%	0.0050%	0.0003%
25	0.0085%	0.0050%	0.0053%
30	0.0095%	0.0120%	0.0149%
35	0.0195%	0.0355%	0.0245%
40	0.0510%	0.0675%	0.0342%
45	0.0755%	0.0940%	0.0439%
50	0.0790%	0.0995%	0.0578%
55	0.0790%	0.0745%	0.1475%
60	0.0765%	0.0525%	0.1867%
65	0.0640%	0.0440%	0.2243%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

17. Rates of Mortality for Active Lives

Rates of mortality for active members are specified by CalPERS 2017 Pre-Retirement Non-Industrial Death rates (plus Duty-Related Death rates for Safety members), with the 20-year static projection used by CalPERS replaced by generational improvements from a base year of 2014 using Scale MP-2017.

18. Rates of Mortality for Retired Healthy Lives

Rates of mortality for retired members and their beneficiaries are given by CalPERS 2017 Post-Retirement Healthy Mortality rates, adjusted by 90% for Males (Miscellaneous and Safety), with the 20-year static projection used by CalPERS replaced by generational improvements from a base year of 2014 using Scale MP-2017.

19. Rates of Mortality for Retired Disabled Lives

Rates of mortality among disabled members are given by CalPERS 2017 Disability Mortality rates (Non-Industrial rates for Miscellaneous members and Industrial Disability rates for Safety members), adjusted by 90% for Males (Miscellaneous and Safety) and 90% for Miscellaneous Females, with the 20-year static projection used by CalPERS replaced by generational improvements from a base year of 2014 using Scale MP-2017.

20. Mortality Improvement

Mortality is assumed to improve in future years in accordance with the MP-2017 generational improvement tables.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

21. Rates of Retirement

Rates of retirement are based on age according to the following tables below.

PEPRA: For New Members we assume that the current retirement rates will apply, but that no Non-Safety members will retire before age 52.

Miscellaneous Rates

Age	<20 Years of Service	20-29 Years of Service	30+ Years of Service
50-52	3.00%	3.00%	3.00%
53	5.00%	5.00%	10.00%
54	5.00%	5.00%	15.00%
55-59	5.00%	10.00%	15.00%
60	5.00%	10.00%	30.00%
61	10.00%	10.00%	30.00%
62-63	10.00%	20.00%	30.00%
64-65	15.00%	20.00%	30.00%
66-67	15.00%	30.00%	30.00%
68-79	20.00%	30.00%	30.00%
80	100.00%	100.00%	100.00%

Safety Rates

Age	3% @ 50 <20 Years of Service	3% @ 50 20-29 Years of Service	3% @ 50 30+ Years of Service	3% @ 55 <20 Years of Service	3% @ 55 20-29 Years of Service	3% @ 55 30+ Years of Service
40-44	0.00%	3.00%	3.00%	0.00%	1.00%	1.00%
45-48	0.00%	3.00%	3.00%	0.00%	5.00%	5.00%
49	0.00%	15.00%	3.00%	0.00%	5.00%	5.00%
50	5.00%	15.00%	50.00%	5.00%	10.00%	30.00%
51-52	5.00%	10.00%	20.00%	5.00%	10.00%	30.00%
53-54	10.00%	10.00%	20.00%	5.00%	10.00%	30.00%
55	10.00%	25.00%	50.00%	20.00%	30.00%	30.00%
56	10.00%	30.00%	50.00%	10.00%	30.00%	30.00%
57	10.00%	35.00%	50.00%	10.00%	20.00%	30.00%
58	10.00%	40.00%	50.00%	10.00%	20.00%	30.00%
59	10.00%	45.00%	50.00%	10.00%	20.00%	30.00%
60-64	50.00%	50.00%	50.00%	20.00%	20.00%	50.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

22. Changes Since Last Valuation

Rates of retirement, disability, mortality, and merit salary increases were changed as a result of an experience study covering the period between July 1, 2014 through June 30, 2017. The mortality improvement projection scale, family composition, deferred retirement commencement ages, termination types (withdrawal, deferred vested or reciprocal transfer), and sick leave service credits upon retirement also changed. Please refer to the experience study report for the details of the assumption changes and the rationale.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Brief Outline of Plan Provisions

Definitions

Compensation

Compensation means the cash remuneration for services paid by the employer. It includes base pay and certain differential, incentive, and special pay allowances defined by the Board of Retirement. Overtime is excluded, with the exception of overtime paid under the Fair Labor Standards Act that is regular and recurring.

PEPRA: For non-reciprocal members joining the Plan on and after January 1, 2013 (New Members), only base compensation or normal monthly rate of pay, as defined, up to the PEPRA wage cap (\$118,775 for 2017 and \$121,388 for 2018) will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security. For those not participating in Social Security, the compensation cap is 120% of the cap above (\$142,530 for 2017 and \$145,666 for 2018). In addition, some sources of compensation, such as leave cashouts, allowances, and some types of special pays, will be excluded from benefit and contribution computations for New Members.

Credited Service

In general, Credited Service is earned for the period during which Member Contributions are paid.

Temporary service for which the Member was not credited, or service for which the Member withdrew his or her Member Contributions, may be purchased by paying or repaying the Member Contributions with interest. The categories of services that credit may be purchased for are listed below:

- Leave without Pay (Member's illness): Member may purchase only up to twelve months of service per incident.
- Re-deposits: Member may only purchase the amount of service previously withdrawn.
- Service Prior to Membership: Member must pay employee portion and applicable interest.
- Military Leave without Pay: Member, who has taken a leave without pay in order to serve in the military, will be given an option to buy the service time.
- Service In-Between: Member may purchase service per incident.
- Public Service: Member must have been employed by the date as indicated below and cannot be receiving a benefit from the other entity.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

April 16, 1979:

Novato Fire Protection District

May 1, 1979:

County of Marin
Marin County Courts
Marin City Community Service District
Tamalpais Community Service District
Southern Marin Fire Protection District
Marin/Sonoma Mosquito and Vector Control District
Local Agency Formation Commission (LAFCO)

May 7, 1979:

City of San Rafael

In all cases of service buybacks, repayment terms for most payment plans may not exceed the length of the period of service being purchased, with a maximum of five years. Payment for public service purchases may also not exceed five years. In the event of an active Member's death, the beneficiary is given the opportunity to pay off any service purchase agreements at the time of death.

A percentage of credited sick leave may be credited according to the Member's applicable bargaining unit.

Final Compensation

For County employees hired after June 30, 1980, and Bargaining Units 10 and 13, LAFCO Tier 3 members and San Rafael employees hired after July 1, 2011, Final Compensation means the highest Compensation earned during any thirty-six consecutive months of the Member's employment. For all others, it is the highest Compensation earned during any twelve months of employment.

PEPRA: For all New Members, highest average Compensation will be based on the highest thirty-six consecutive months, rather than 12 months.

Miscellaneous Member

Any Member who is not a Safety Member is a Miscellaneous Member. Miscellaneous Members are called "Nonsafety Members" Under PEPRA.

Safety Member

Any sworn Member engaged in law enforcement or fire suppression, and most probation officers are Safety Members.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Membership

Eligibility

All full-time, permanent employees of the City of San Rafael, Novato Fire Protection Districts, Marin County, and other participating special districts become Members on their date of appointment.

PEPRA: A New Member is any Member joining the Plan for the first time on or after January 1, 2013, or who was a member of the Plan previously but withdrew MCERA contributions and did not redeposit them with interest upon reentry. Employees who transfer from and are eligible for reciprocity with another public employer will not be New Members if their service in the reciprocal system was under a pre-PEPRA tier.

Member Contributions

Each Member contributes a percentage of Compensation to the Plan through payroll deduction. The percentage contributed depends on the Member's age upon joining the Plan, and is determined in accordance with the requirements of the '37 Act. Members do not contribute after earning 30 years of Credited Service.

Interest is credited semiannually to each Member's accumulated contributions. The crediting rate is set by the Board; the current annual rate is 7.00%.

PEPRA: New Members must contribute half of the normal cost of the Plan. Contributions for these Members will be based on the Normal Cost associated with their benefits; General and Safety members will pay different rates, as will those with different COLA caps.

New Members will pay a single contribution rate, not a rate based on entry age. All New Members are expected to continue contributing after earning 30 years of service.

Service Retirement

Eligibility

Miscellaneous County Members hired after July 1, 2008, Courts Members hired after January 1, 2009, and San Rafael Miscellaneous Members hired after July 1, 2011 are eligible to retire at age 55 if they have earned 10 years of Credited Service. All other Miscellaneous Members are eligible to retire at age 50 if they have earned 10 years of Credited Service. Alternatively, Miscellaneous Members are eligible to retire at any age after having earned 30 years of Credited Service, or upon reaching age 70 with no service requirement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety Members are eligible to retire at age 50 if they have earned 10 years of Credited Service. Alternatively, Safety Members are eligible to retire at any age after having earned 20 years of Credited Service, or upon reaching age 70 with no service requirement.

PEPRA: New Nonsafety Members are eligible to retire upon attaining age 52 and completing five or more years of service, or upon reaching age 70 with no service requirement. New Safety Members are eligible to retire upon attaining age 50 and completing five or more years of service, or upon reaching age 70 with no service requirement. New Members must reach PEPRA-specified ages, regardless of their years of service, to retire for service.

Benefit Amount

The Service Retirement Benefit payable to the Member is equal to the Member's Final Compensation multiplied by credited service, the benefit factor from Table 1 and the age factor from Table 2 corresponding to the Member's code section. The age factor multiplied by the benefit factor for each code section is also shown in Table 2, other than the PEPRA factors. The appropriate code sections for each group are listed in Table 1 on the next page.

The percentage of Final Compensation may not exceed 100%.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 1: Member Group Descriptions						
Description	Class	FAP	COLA	Code Section	Formula Retirement Age ¹	Benefit Factor
Special Districts Courts Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
Special Districts Courts Tier 2	Miscellaneous	3	2	31676.1	61.25	2.00%
Special Districts Courts Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts Courts Tier 4	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts Courts Tier 5	Miscellaneous	3	2	7522.20	62.00	2.00%
Special Districts LAFCO Tier 7 (also referred to as Tier 2)	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts LAFCO Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts LAFCO Tier 4	Miscellaneous	3	2	7522.20	62.00	2.00%
Special Districts Marin City CSD Tier 1	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts Marin City CSD Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts Mosquito District Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
Special Districts Mosquito District Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts Tamalpais CSD Tier 1	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts Tamalpais CSD Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts South Marin Fire Miscellaneous Tier 1	Miscellaneous	1	4	31676.19	55.00	2.70%
Special Districts South Marin Fire Miscellaneous Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts South Marin Fire Safety Tier 1	Safety	1	4	31664.1	50.00	3.00%
Special Districts South Marin Fire Safety Tier 2	Safety	1	4	31664.2	55.00	3.00%
Special Districts South Marin Fire Safety Tier 2A	Safety	3	3	31664.2	55.00	3.00%
Special Districts South Marin Fire Safety Tier 3	Safety	3	4	7522.25(d)	57.00	2.70%
Special Districts South Marin Fire Safety Tier 3A	Safety	3	3	7522.25(d)	57.00	2.70%
County Miscellaneous Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
County Miscellaneous Tier 2	Miscellaneous	3	2	31676.1	61.25	2.00%
County Miscellaneous Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
County Miscellaneous Tier 3A ²	Miscellaneous	3	2	31676.16	55.00	2.00%
County Miscellaneous Tier 4 ²	Miscellaneous	3	2	31676.1	61.25	2.00%
County Miscellaneous Tier 5	Miscellaneous	3	2	7522.20	62.00	2.00%
County Safety Tier 1A	Safety	1	4	31664.2	55.00	3.00%
County Safety Tier 1B	Safety	1	4	31664.1	50.00	3.00%
County Safety Tier 2A	Safety	3	2	31664.2	55.00	3.00%
County Safety Tier 2B	Safety	3	2	31664.1	50.00	3.00%
County Safety Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%
Novato Miscellaneous Tier 1	Miscellaneous	1	4	31676.16	55.00	2.00%
Novato Miscellaneous Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Novato Miscellaneous Tier 2A	Miscellaneous	3	2	7522.20	62.00	2.00%
Novato Safety Tier 1	Safety	1	4	31664.1	50.00	3.00%
Novato Safety Tier 2	Safety	1	4	31664.2	55.00	3.00%
Novato Safety Tier 3	Safety	3	4	7522.25(d)	57.00	2.70%
Novato Safety Tier 3A	Safety	3	2	7522.25(d)	57.00	2.70%
San Rafael Miscellaneous Tier 1	Miscellaneous	1	3	31676.19	55.00	2.70%
San Rafael Miscellaneous Tier 2 ²	Miscellaneous	3	2	31676.16	55.00	2.00%
San Rafael Miscellaneous Tier 3	Miscellaneous	3	2	7522.20	62.00	2.00%
San Rafael Fire Tier 1	Safety	1	3	31664.2	55.00	3.00%
San Rafael Fire Tier 2	Safety	3	2	31664.2	55.00	3.00%
San Rafael Fire Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%
San Rafael Safety Tier 1	Safety	1	3	31664.2	55.00	3.00%
San Rafael Safety Tier 2	Safety	3	2	31664.2	55.00	3.00%
San Rafael Safety Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%

¹ This represents the age at which a retiring member would receive the benefit factor shown in the final column.

² Members of these Tiers must be age 55 with 10 years of service to receive a service retirement benefit.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 2: Age & Service Factors

Miscellaneous

Age	Misc 2% at Age 61.25 CERL §: 31676.1		Misc 2% at Age 58.5 CERL §: 31676.11		Misc 2% at Age 55.5 CERL §: 31676.14		Misc 2% at Age 55 CERL §: 31676.16		Misc 2.7% at Age 55 CERL §: 31676.19		Misc 2.7% at Age 67 GC §: 7522.20	
	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit
50	0.7091	1.18%	0.7454	1.24%	0.8850	1.48%	0.7130	1.43%	1.0000	2.00%	1.0000	1.00%
51	0.7457	1.24%	0.7882	1.31%	0.9399	1.57%	0.7610	1.52%	1.0700	2.14%	1.0000	1.00%
52	0.7816	1.30%	0.8346	1.39%	1.0000	1.67%	0.8140	1.63%	1.1400	2.28%	1.0000	1.00%
53	0.8181	1.36%	0.8850	1.48%	1.0447	1.74%	0.8710	1.74%	1.2100	2.42%	1.1000	1.10%
54	0.8556	1.43%	0.9399	1.57%	1.1048	1.84%	0.9330	1.87%	1.2800	2.56%	1.2000	1.20%
55	0.8954	1.49%	1.0000	1.67%	1.1686	1.95%	1.0000	2.00%	1.3500	2.70%	1.3000	1.30%
56	0.9382	1.56%	1.0447	1.74%	1.2365	2.06%	1.0260	2.05%	1.3500	2.70%	1.4000	1.40%
57	0.9846	1.64%	1.1048	1.84%	1.3093	2.18%	1.0520	2.10%	1.3500	2.70%	1.5000	1.50%
58	1.0350	1.73%	1.1686	1.95%	1.3608	2.27%	1.0780	2.16%	1.3500	2.70%	1.6000	1.60%
59	1.0899	1.82%	1.2365	2.06%	1.4123	2.35%	1.1050	2.21%	1.3500	2.70%	1.7000	1.70%
60	1.1500	1.92%	1.3093	2.18%	1.4638	2.44%	1.1310	2.26%	1.3500	2.70%	1.8000	1.80%
61	1.1947	1.99%	1.3608	2.27%	1.5153	2.53%	1.1570	2.31%	1.3500	2.70%	1.9000	1.90%
62	1.2548	2.09%	1.4123	2.35%	1.5668	2.61%	1.1830	2.37%	1.3500	2.70%	2.0000	2.00%
63	1.3186	2.20%	1.4638	2.44%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.1000	2.10%
64	1.3865	2.31%	1.5153	2.53%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.2000	2.20%
65	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.3000	2.30%
66	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.4000	2.40%
67+	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.5000	2.50%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety

Age	Safety 2% at Age 50 CERL §: 31664		Safety 3% at Age 50 CERL §: 31664.1		Safety 3% at Age 55 CERL §: 31664.2		Safety 2.7% at Age 57 GC §: 7522.25(d)	
	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit
41	0.6258	1.25%	0.6258	1.88%	0.4777	1.43%	2.0000	2.00%
42	0.6625	1.33%	0.6625	1.99%	0.5058	1.52%	2.0000	2.00%
43	0.7004	1.40%	0.7004	2.10%	0.5347	1.60%	2.0000	2.00%
44	0.7397	1.48%	0.7397	2.22%	0.5647	1.69%	2.0000	2.00%
45	0.7805	1.56%	0.7805	2.34%	0.5958	1.79%	2.0000	2.00%
46	0.8226	1.65%	0.8226	2.47%	0.6280	1.88%	2.0000	2.00%
47	0.8678	1.74%	0.8678	2.60%	0.6625	1.99%	2.0000	2.00%
48	0.9085	1.82%	0.9085	2.73%	0.6936	2.08%	2.0000	2.00%
49	0.9522	1.90%	0.9522	2.86%	0.7269	2.18%	2.0000	2.00%
50	1.0000	2.00%	1.0000	3.00%	0.7634	2.29%	2.0000	2.00%
51	1.0516	2.10%	1.0000	3.00%	0.8028	2.41%	2.1000	2.10%
52	1.1078	2.22%	1.0000	3.00%	0.8457	2.54%	2.2000	2.20%
53	1.1692	2.34%	1.0000	3.00%	0.8926	2.68%	2.3000	2.30%
54	1.2366	2.47%	1.0000	3.00%	0.9418	2.83%	2.4000	2.40%
55	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.5000	2.50%
56	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.6000	2.60%
57+	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.7000	2.70%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

PEPRA: For New Nonsafety Members, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. For New Safety Members, the benefit multiplier will be 2% at age 50, increasing by 0.1% for each year of age to 2.7% at age 57. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.

New Members are subject to the PEPRA caps and other restrictions on pensionable compensation described in other parts of the valuation.

Form of Benefit

The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the Member. If the member selects the unmodified benefit form, in the event of the Member's death 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are increased or decreased to reflect changes in the CPI for the San Francisco Bay Area. Annual increases may not exceed the COLA figures shown in Table 1, but CPI increases above this figure are "banked" and used for future increases when the CPI increases by less than the figures shown.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Service-Connected Disability

Eligibility

Members are eligible for Service-Connected Disability Retirement benefits at any age if they are permanently disabled as a result of injuries or illness sustained in the line of duty.

Benefit Amount

The Service-Connected Disability Retirement Benefit payable to Members is equal to the greater of 50% of their Final Compensation or – if the Member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

PEPRA: The Service-Connected Disability Retirement Benefit for New Members will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Service-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the Member; in the event of the Member's death, 100% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Nonservice-Connected Disability

Eligibility

Members are eligible to for Nonservice-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service.

Benefit Amount

The Nonservice-Connected Disability Retirement Benefit payable to Miscellaneous Members is equal to the greatest of:

- 1.5% of Final Compensation at disability multiplied by years of Credited Service at disability,
- 1.5% of Final Compensation at disability multiplied by years of Credited Service projected to age 65, but not to exceed one-third of Final Compensation, or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Safety Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability,
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 55, but not to exceed one-third of Final Compensation, or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

PEPRA: The Nonservice-Connected Disability Retirement Benefit for New Members will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Nonservice-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement, and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Pre-Retirement Death

Eligibility

A Member's survivors are eligible to receive different Death benefits dependent on the Member's cause of death and retirement eligibility.

Benefit Amount

In the event the Member's death resulted from injury or illness sustained in connection with the Member's duties, the Death Benefit payable to a surviving spouse or domestic partner will be 50% of the Member's Final Compensation.

In the event the Member was eligible for Service Retirement or Non-Service Connected Disability, the Death Benefit payable to the survivor will be 60% of the survivor benefit based on benefit due on Member's date of death.

In all other cases, the eligible survivor will receive a refund of the Member's contributions with interest plus one month of Final Compensation for each year of service to a maximum of six years.

PEPRA: The Death Benefits for New Members related to Final Compensation will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

COLA adjustments (as described for the Service Retirement benefit) are also available.

Withdrawal Benefit

Eligibility

A Member is eligible for a Withdrawal Benefit upon termination of employment.

Benefit Amount

The Withdrawal Benefit is a refund of the Member's accumulated Contributions with interest. Upon receipt of the Withdrawal Benefit the Member forfeits all Credited Service. Alternatively, the Member can leave contributions on deposit and retire at the date first eligible (age 70 for those not vested).

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Form of Benefit

The Withdrawal Benefit is paid in a lump sum upon election by the Member.

Deferred Vested Benefit

Eligibility

A Member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service, including reciprocity service from another system. The Member must leave his or her Member Contributions with interest on deposit with the Plan.

Benefit Amount

The Deferred Vested Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service and Final Compensation on the date of termination.

PEPRA: For New Members, the Deferred Vested Benefit will be based on the new benefit formulas, and will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Deferred Vested Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$ 5,000 will be payable upon the death of the member.

PEPRA: For New Members, the Deferred Vested Benefit may commence at the new service retirement eligibility criteria (age 52 for Nonsafety, age 50 for Safety.)

Reciprocal Benefit

Eligibility

A Member is eligible for a Reciprocal Benefit upon termination of employment and entry, within a specified period of time, into another retirement system recognized as

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

a reciprocal system by the Plan. In addition, the Member must leave his or her Member Contributions with interest on deposit with the Plan.

Benefit Amount

The Reciprocal Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service on the date of termination and Final Compensation on the date of retirement; Final Compensation is based on the highest of the Compensation earned under this Plan or the reciprocal plan.

PEPRA: For New Members, the Reciprocal Benefit will be based on the new benefit formulas, and will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Reciprocal Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available.

A lump sum benefit may be payable upon the death of a retired Member by the last system the Member worked under.

PEPRA: For New Members, the Reciprocal Benefit may commence at the new service retirement eligibility criteria (age 52 for Nonsafety, age 50 for Safety.)

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Optional Benefit Forms

Prior to retirement, a member may elect to convert his retirement allowance into a benefit of equivalent actuarial value in accordance with one of the optional forms described below.

1. A reduced retirement allowance payable during his life with the provision that on his death the excess, if any, of his accumulated deductions at the time of retirement over the annuity payments made to him will be paid to his designated beneficiary or estate, or
2. A reduced retirement allowance payable during his life with the provision that after his death the reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement, or
3. A reduced retirement allowance payable during his life with the provision that after his death an allowance of one-half of his reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement.

PEPRA: No change.

APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. Actuarial Liability

The portion of the Actuarial Present Value of Projected Benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

APPENDIX D – GLOSSARY

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is generally to smooth out fluctuations in market values. As of the June 30, 2014 valuation, no smoothing of the assets is applied, and the Actuarial Value equals the Market Value.

8. Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date, with each value based on the same set of actuarial assumptions.

9. Amortization Payment

The portion of the pension plan contribution, which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liability.

12. Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Employee contribution rates vary by member Group and Tier. The basic rates are determined based on Government Code Section 31621 for General members (31621.1 for members under benefit section 31676.11, 31621.8 for members under benefit 31676.19) and Section 31639.25 for Safety members. The COLA rates for members are determined based on 50% of the normal cost associated with the expected COLA benefits, determined for each individual entry age. A cap on the employee COLA contribution rate is applied to the County and Courts members. Some County Safety groups are paying additional employee contributions as a result of bargaining agreements.

The current rates were determined based on an interest rate of 7.00% per annum, an average salary increase of 3.00% per year (plus service-based increases for merit/longevity), and the CalPERS 2017 Pre-Retirement Non-Industrial Death rates, with the static projection used by CalPERS replaced by generational improvements from a base year of 2014 to the year 2037 using Scale MP-2017.

The rates are blended based on a male/female weighting of 40% male/60% female for General members, and 85% male/15% female for Safety members. Basic and COLA rates were determined based on an assumption that members would cease making contributions after 30 years of service.

Employee contribution rates for PEPRA members are determined based on half the Normal Cost for the PEPRA members (computed separately for General and Safety members, and those with 2%, 3% or 4% capped COLAs). Due to the passage of SB13, contribution rates for PEPRA members are not rounded, and are recomputed each year.

A load is added to the employee contributions to cover their share of the expected administrative expenses. For the current valuation, the load is 4.8% of the total unadjusted contribution rate.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous and Courts: Tier 1 (31676.14)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	6.43%	1.97%	1.58%	8.01%	7.50%
21	6.46%	2.04%	1.58%	8.04%	7.56%
22	6.49%	2.12%	1.58%	8.07%	7.59%
23	6.51%	2.20%	1.58%	8.09%	7.63%
24	6.53%	2.27%	1.58%	8.11%	7.66%
25	6.55%	2.35%	1.58%	8.13%	7.69%
26	6.56%	2.43%	1.58%	8.14%	7.71%
27	6.56%	2.50%	1.58%	8.14%	7.73%
28	6.56%	2.59%	1.58%	8.14%	7.75%
29	6.55%	2.66%	1.58%	8.13%	7.76%
30	6.54%	2.75%	1.58%	8.12%	7.76%
31	6.66%	2.81%	1.58%	8.24%	7.88%
32	6.78%	2.86%	1.58%	8.36%	8.01%
33	6.91%	2.93%	1.58%	8.49%	8.13%
34	7.04%	3.01%	1.58%	8.62%	8.26%
35	7.16%	3.09%	1.58%	8.74%	8.38%
36	7.30%	3.14%	1.58%	8.88%	8.52%
37	7.42%	3.22%	1.58%	9.00%	8.66%
38	7.57%	3.28%	1.58%	9.15%	8.79%
39	7.71%	3.34%	1.58%	9.29%	8.94%
40	7.85%	3.41%	1.58%	9.43%	9.09%
41	7.99%	3.45%	1.58%	9.57%	9.23%
42	8.15%	3.51%	1.58%	9.73%	9.38%
43	8.30%	3.52%	1.58%	9.88%	9.54%
44	8.46%	3.52%	1.58%	10.04%	9.71%
45	8.63%	3.54%	1.58%	10.21%	9.87%
46	8.80%	3.56%	1.58%	10.38%	10.04%
47	8.97%	3.55%	1.58%	10.55%	10.22%
48	9.16%	3.53%	1.58%	10.74%	10.41%
49	9.35%	3.53%	1.58%	10.93%	10.60%
50	9.54%	3.53%	1.58%	11.12%	10.81%
51	9.73%	3.53%	1.58%	11.31%	11.04%
52	9.92%	3.48%	1.58%	11.50%	11.29%
53	10.09%	3.43%	1.58%	11.67%	11.56%
54	10.24%	3.37%	1.58%	11.82%	11.90%
55	10.35%	3.27%	1.58%	11.93%	12.17%
56	10.38%	3.17%	1.58%	11.96%	12.14%
57	10.36%	3.07%	1.58%	11.94%	11.95%
58	10.25%	2.98%	1.58%	11.83%	11.77%
59+	10.15%	2.83%	1.58%	11.73%	11.58%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous and Courts: Tier 2 (31676.1)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	6.12%	0.99%	0.99%	7.11%	6.62%
21	6.15%	1.03%	1.03%	7.18%	6.70%
22	6.18%	1.06%	1.06%	7.24%	6.77%
23	6.21%	1.10%	1.10%	7.31%	6.84%
24	6.23%	1.13%	1.13%	7.36%	6.91%
25	6.24%	1.17%	1.17%	7.41%	6.96%
26	6.24%	1.22%	1.22%	7.46%	7.02%
27	6.25%	1.26%	1.26%	7.51%	7.07%
28	6.26%	1.30%	1.30%	7.56%	7.13%
29	6.25%	1.34%	1.34%	7.59%	7.17%
30	6.24%	1.38%	1.38%	7.62%	7.21%
31	6.35%	1.43%	1.43%	7.78%	7.37%
32	6.46%	1.47%	1.47%	7.93%	7.53%
33	6.58%	1.51%	1.51%	8.09%	7.68%
34	6.71%	1.55%	1.55%	8.26%	7.84%
35	6.85%	1.59%	1.58%	8.43%	8.01%
36	7.01%	1.64%	1.58%	8.59%	8.18%
37	7.16%	1.68%	1.58%	8.74%	8.33%
38	7.30%	1.72%	1.58%	8.88%	8.51%
39	7.43%	1.76%	1.58%	9.01%	8.68%
40	7.57%	1.79%	1.58%	9.15%	8.81%
41	7.71%	1.83%	1.58%	9.29%	8.96%
42	7.85%	1.87%	1.58%	9.43%	9.11%
43	8.00%	1.89%	1.58%	9.58%	9.25%
44	8.16%	1.91%	1.58%	9.74%	9.41%
45	8.31%	1.93%	1.58%	9.89%	9.57%
46	8.48%	1.95%	1.58%	10.06%	9.74%
47	8.65%	1.95%	1.58%	10.23%	9.92%
48	8.83%	1.96%	1.58%	10.41%	10.09%
49	9.00%	1.96%	1.58%	10.58%	10.28%
50	9.16%	1.97%	1.58%	10.74%	10.48%
51	9.32%	1.98%	1.58%	10.90%	10.70%
52	9.46%	1.97%	1.58%	11.04%	10.94%
53	9.57%	1.96%	1.58%	11.15%	11.17%
54	9.63%	1.95%	1.58%	11.21%	11.29%
55	9.65%	1.90%	1.58%	11.23%	11.26%
56	9.60%	1.84%	1.58%	11.18%	11.11%
57	9.51%	1.79%	1.58%	11.09%	10.94%
58	9.82%	1.74%	1.58%	11.40%	11.26%
59+	10.15%	1.67%	1.58%	11.73%	11.55%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous Tiers 3 and 3A, Courts Tiers 3 and 4 (31676.16)						
Entry Age	Basic	COL	COL Limited to 1.58%	Additional Cost Sharing	Total	Prior Total
20	6.17%	1.21%	1.21%	1.14%	8.52%	8.06%
21	6.20%	1.25%	1.25%	1.14%	8.59%	8.14%
22	6.24%	1.29%	1.29%	1.14%	8.67%	8.22%
23	6.26%	1.34%	1.34%	1.14%	8.74%	8.30%
24	6.28%	1.38%	1.38%	1.14%	8.80%	8.37%
25	6.30%	1.41%	1.41%	1.14%	8.85%	8.43%
26	6.30%	1.46%	1.46%	1.14%	8.90%	8.49%
27	6.31%	1.51%	1.51%	1.14%	8.96%	8.53%
28	6.31%	1.55%	1.55%	1.14%	9.00%	8.58%
29	6.31%	1.59%	1.58%	1.14%	9.03%	8.63%
30	6.35%	1.64%	1.58%	1.14%	9.07%	8.66%
31	6.48%	1.68%	1.58%	1.14%	9.20%	8.80%
32	6.60%	1.72%	1.58%	1.14%	9.32%	8.96%
33	6.71%	1.76%	1.58%	1.14%	9.43%	9.09%
34	6.84%	1.80%	1.58%	1.14%	9.56%	9.21%
35	6.96%	1.86%	1.58%	1.14%	9.68%	9.34%
36	7.09%	1.89%	1.58%	1.14%	9.81%	9.47%
37	7.22%	1.92%	1.58%	1.14%	9.94%	9.60%
38	7.35%	1.96%	1.58%	1.14%	10.07%	9.74%
39	7.49%	1.99%	1.58%	1.14%	10.21%	9.87%
40	7.62%	2.02%	1.58%	1.14%	10.34%	10.01%
41	7.76%	2.05%	1.58%	1.14%	10.48%	10.16%
42	7.91%	2.09%	1.58%	1.14%	10.63%	10.30%
43	8.05%	2.10%	1.58%	1.14%	10.77%	10.45%
44	8.21%	2.10%	1.58%	1.14%	10.93%	10.61%
45	8.37%	2.10%	1.58%	1.14%	11.09%	10.76%
46	8.54%	2.11%	1.58%	1.14%	11.26%	10.93%
47	8.70%	2.10%	1.58%	1.14%	11.42%	11.11%
48	8.88%	2.09%	1.58%	1.14%	11.60%	11.29%
49	9.05%	2.08%	1.58%	1.14%	11.77%	11.48%
50	9.22%	2.08%	1.58%	1.14%	11.94%	11.68%
51	9.38%	2.08%	1.58%	1.14%	12.10%	11.90%
52	9.51%	2.05%	1.58%	1.14%	12.23%	12.14%
53	9.63%	2.02%	1.58%	1.14%	12.35%	12.37%
54	9.69%	1.99%	1.58%	1.14%	12.41%	12.48%
55	9.70%	1.94%	1.58%	1.14%	12.42%	12.45%
56	9.66%	1.88%	1.58%	1.14%	12.38%	12.30%
57	9.56%	1.81%	1.58%	1.14%	12.28%	12.14%
58	9.88%	1.76%	1.58%	1.14%	12.60%	12.45%
59+	10.20%	1.68%	1.58%	1.14%	12.92%	12.74%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous Tier 4 (31676.1)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	6.12%	1.00%	1.00%	7.12%	6.62%
21	6.15%	1.03%	1.03%	7.18%	6.70%
22	6.18%	1.06%	1.06%	7.24%	6.78%
23	6.21%	1.10%	1.10%	7.31%	6.85%
24	6.23%	1.14%	1.14%	7.37%	6.92%
25	6.24%	1.17%	1.17%	7.41%	6.97%
26	6.24%	1.22%	1.22%	7.46%	7.03%
27	6.25%	1.26%	1.26%	7.51%	7.09%
28	6.26%	1.30%	1.30%	7.56%	7.14%
29	6.25%	1.34%	1.34%	7.59%	7.19%
30	6.24%	1.38%	1.38%	7.62%	7.22%
31	6.35%	1.43%	1.43%	7.78%	7.38%
32	6.46%	1.47%	1.47%	7.93%	7.54%
33	6.58%	1.51%	1.51%	8.09%	7.69%
34	6.71%	1.55%	1.55%	8.26%	7.85%
35	6.85%	1.59%	1.58%	8.43%	8.01%
36	7.00%	1.62%	1.58%	8.58%	8.18%
37	7.16%	1.68%	1.58%	8.74%	8.33%
38	7.30%	1.72%	1.58%	8.88%	8.50%
39	7.43%	1.75%	1.58%	9.01%	8.68%
40	7.57%	1.79%	1.58%	9.15%	8.81%
41	7.71%	1.82%	1.58%	9.29%	8.96%
42	7.85%	1.87%	1.58%	9.43%	9.11%
43	8.00%	1.89%	1.58%	9.58%	9.25%
44	8.16%	1.91%	1.58%	9.74%	9.41%
45	8.31%	1.93%	1.58%	9.89%	9.57%
46	8.48%	1.95%	1.58%	10.06%	9.74%
47	8.65%	1.95%	1.58%	10.23%	9.92%
48	8.83%	1.96%	1.58%	10.41%	10.09%
49	9.00%	1.96%	1.58%	10.58%	10.28%
50	9.16%	1.97%	1.58%	10.74%	10.48%
51	9.32%	1.98%	1.58%	10.90%	10.70%
52	9.46%	1.97%	1.58%	11.04%	10.94%
53	9.57%	1.96%	1.58%	11.15%	11.17%
54	9.63%	1.95%	1.58%	11.21%	11.29%
55	9.65%	1.90%	1.58%	11.23%	11.26%
56	9.60%	1.84%	1.58%	11.18%	11.11%
57	9.51%	1.79%	1.58%	11.09%	10.94%
58	9.82%	1.74%	1.58%	11.40%	11.26%
59+	10.15%	1.67%	1.58%	11.73%	11.55%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Safety: Tier 1A (31664.2)						
Entry Age	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	Prior Total
20	9.47%	4.23%	3.10%	3.64%	16.21%	15.35%
21	9.61%	4.36%	3.10%	3.64%	16.35%	15.49%
22	9.76%	4.50%	3.10%	3.64%	16.50%	15.63%
23	9.90%	4.63%	3.10%	3.64%	16.64%	15.76%
24	10.05%	4.76%	3.10%	3.64%	16.79%	15.90%
25	10.20%	4.86%	3.10%	3.64%	16.94%	16.05%
26	10.35%	5.03%	3.10%	3.64%	17.09%	16.19%
27	10.51%	5.19%	3.10%	3.64%	17.25%	16.34%
28	10.67%	5.33%	3.10%	3.64%	17.41%	16.49%
29	10.84%	5.48%	3.10%	3.64%	17.58%	16.63%
30	11.00%	5.62%	3.10%	3.64%	17.74%	16.79%
31	11.17%	5.74%	3.10%	3.64%	17.91%	16.95%
32	11.35%	5.87%	3.10%	3.64%	18.09%	17.10%
33	11.53%	5.98%	3.10%	3.64%	18.27%	17.26%
34	11.72%	6.09%	3.10%	3.64%	18.46%	17.43%
35	11.91%	6.19%	3.10%	3.64%	18.65%	17.60%
36	12.10%	6.26%	3.10%	3.64%	18.84%	17.77%
37	12.31%	6.26%	3.10%	3.64%	19.05%	17.93%
38	12.52%	6.32%	3.10%	3.64%	19.26%	18.12%
39	12.72%	6.39%	3.10%	3.64%	19.46%	18.30%
40	12.92%	6.48%	3.10%	3.64%	19.66%	18.49%
41	13.11%	6.56%	3.10%	3.64%	19.85%	18.69%
42	13.28%	6.66%	3.10%	3.64%	20.02%	18.90%
43	13.43%	6.73%	3.10%	3.64%	20.17%	19.12%
44	13.53%	6.80%	3.10%	3.64%	20.27%	19.37%
45	13.60%	6.85%	3.10%	3.64%	20.34%	19.64%
46	13.62%	6.70%	3.10%	3.64%	20.36%	19.88%
47	13.59%	6.70%	3.10%	3.64%	20.33%	19.83%
48	13.53%	6.71%	3.10%	3.64%	20.27%	19.78%
49+	13.46%	6.73%	3.10%	3.64%	20.20%	19.73%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Safety: Tier 1B (31664.1)						
Entry Age	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	Prior Total
20	9.47%	5.20%	3.10%	3.64%	16.21%	15.35%
21	9.61%	5.19%	3.10%	3.64%	16.35%	15.49%
22	9.76%	5.32%	3.10%	3.64%	16.50%	15.63%
23	9.90%	5.46%	3.10%	3.64%	16.64%	15.76%
24	10.05%	5.61%	3.10%	3.64%	16.79%	15.90%
25	10.20%	5.74%	3.10%	3.64%	16.94%	16.05%
26	10.35%	5.85%	3.10%	3.64%	17.09%	16.19%
27	10.51%	5.96%	3.10%	3.64%	17.25%	16.34%
28	10.67%	6.09%	3.10%	3.64%	17.41%	16.49%
29	10.84%	6.22%	3.10%	3.64%	17.58%	16.63%
30	11.00%	6.23%	3.10%	3.64%	17.74%	16.79%
31	11.17%	6.27%	3.10%	3.64%	17.91%	16.95%
32	11.35%	6.36%	3.10%	3.64%	18.09%	17.10%
33	11.53%	6.46%	3.10%	3.64%	18.27%	17.26%
34	11.72%	6.58%	3.10%	3.64%	18.46%	17.43%
35	11.91%	6.71%	3.10%	3.64%	18.65%	17.60%
36	12.10%	6.77%	3.10%	3.64%	18.84%	17.77%
37	12.31%	6.81%	3.10%	3.64%	19.05%	17.93%
38	12.52%	6.85%	3.10%	3.64%	19.26%	18.12%
39	12.72%	6.90%	3.10%	3.64%	19.46%	18.30%
40	12.92%	6.94%	3.10%	3.64%	19.66%	18.49%
41	13.11%	6.99%	3.10%	3.64%	19.85%	18.69%
42	13.28%	7.04%	3.10%	3.64%	20.02%	18.90%
43	13.43%	7.11%	3.10%	3.64%	20.17%	19.12%
44	13.53%	7.11%	3.10%	3.64%	20.27%	19.37%
45	13.60%	7.12%	3.10%	3.64%	20.34%	19.64%
46	13.62%	7.14%	3.10%	3.64%	20.36%	19.88%
47	13.59%	7.17%	3.10%	3.64%	20.33%	19.83%
48	13.53%	7.21%	3.10%	3.64%	20.27%	19.78%
49+	13.46%	7.26%	3.10%	3.64%	20.20%	19.73%

Some members who are receiving enhanced benefits under 31664.1 are paying an additional 2.60%, 3.530% or 3.885%, depending on their bargaining agreement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Safety: Tier 2A (31664.2)						
Entry Age	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	Prior Total
20	8.96%	2.61%	2.61%	3.64%	15.21%	14.13%
21	9.09%	2.68%	2.68%	3.64%	15.41%	14.33%
22	9.23%	2.77%	2.77%	3.64%	15.64%	14.53%
23	9.37%	2.85%	2.85%	3.64%	15.86%	14.74%
24	9.51%	2.93%	2.93%	3.64%	16.08%	14.95%
25	9.65%	3.00%	3.00%	3.64%	16.29%	15.13%
26	9.80%	3.10%	3.10%	3.64%	16.54%	15.32%
27	10.04%	3.20%	3.10%	3.64%	16.78%	15.53%
28	10.25%	3.29%	3.10%	3.64%	16.99%	15.74%
29	10.41%	3.39%	3.10%	3.64%	17.15%	15.96%
30	10.56%	3.47%	3.10%	3.64%	17.30%	16.18%
31	10.73%	3.55%	3.10%	3.64%	17.47%	16.40%
32	10.90%	3.64%	3.10%	3.64%	17.64%	16.64%
33	11.08%	3.71%	3.10%	3.64%	17.82%	16.85%
34	11.26%	3.77%	3.10%	3.64%	18.00%	17.01%
35	11.43%	3.84%	3.10%	3.64%	18.17%	17.17%
36	11.62%	3.88%	3.10%	3.64%	18.36%	17.33%
37	11.81%	3.88%	3.10%	3.64%	18.55%	17.49%
38	11.99%	3.92%	3.10%	3.64%	18.73%	17.67%
39	12.17%	3.97%	3.10%	3.64%	18.91%	17.85%
40	12.32%	4.02%	3.10%	3.64%	19.06%	18.03%
41	12.47%	4.08%	3.10%	3.64%	19.21%	18.22%
42	12.59%	4.14%	3.10%	3.64%	19.33%	18.42%
43	12.67%	4.18%	3.10%	3.64%	19.41%	18.64%
44	12.71%	4.23%	3.10%	3.64%	19.45%	18.84%
45	12.72%	4.27%	3.10%	3.64%	19.46%	18.94%
46	12.68%	4.18%	3.10%	3.64%	19.42%	18.94%
47	12.62%	4.18%	3.10%	3.64%	19.36%	18.90%
48	13.03%	4.19%	3.10%	3.64%	19.77%	19.31%
49+	13.46%	4.20%	3.10%	3.64%	20.20%	19.73%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	County Safety: Tier 2B (31664.1)					Prior Total
	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	
20	9.05%	3.20%	3.10%	3.64%	15.79%	14.54%
21	9.18%	3.20%	3.10%	3.64%	15.92%	14.68%
22	9.38%	3.27%	3.10%	3.64%	16.12%	14.86%
23	9.52%	3.36%	3.10%	3.64%	16.26%	15.06%
24	9.65%	3.45%	3.10%	3.64%	16.39%	15.26%
25	9.80%	3.53%	3.10%	3.64%	16.54%	15.45%
26	9.95%	3.61%	3.10%	3.64%	16.69%	15.64%
27	10.09%	3.68%	3.10%	3.64%	16.83%	15.85%
28	10.25%	3.75%	3.10%	3.64%	16.99%	16.06%
29	10.41%	3.84%	3.10%	3.64%	17.15%	16.25%
30	10.56%	3.85%	3.10%	3.64%	17.30%	16.39%
31	10.73%	3.88%	3.10%	3.64%	17.47%	16.54%
32	10.90%	3.94%	3.10%	3.64%	17.64%	16.70%
33	11.08%	3.99%	3.10%	3.64%	17.82%	16.85%
34	11.26%	4.08%	3.10%	3.64%	18.00%	17.01%
35	11.43%	4.15%	3.10%	3.64%	18.17%	17.17%
36	11.62%	4.19%	3.10%	3.64%	18.36%	17.33%
37	11.81%	4.22%	3.10%	3.64%	18.55%	17.49%
38	11.99%	4.24%	3.10%	3.64%	18.73%	17.67%
39	12.17%	4.28%	3.10%	3.64%	18.91%	17.85%
40	12.32%	4.30%	3.10%	3.64%	19.06%	18.03%
41	12.47%	4.34%	3.10%	3.64%	19.21%	18.22%
42	12.59%	4.37%	3.10%	3.64%	19.33%	18.42%
43	12.67%	4.41%	3.10%	3.64%	19.41%	18.64%
44	12.71%	4.41%	3.10%	3.64%	19.45%	18.84%
45	12.72%	4.42%	3.10%	3.64%	19.46%	18.94%
46	12.68%	4.44%	3.10%	3.64%	19.42%	18.94%
47	12.62%	4.46%	3.10%	3.64%	19.36%	18.90%
48	13.03%	4.50%	3.10%	3.64%	19.77%	19.31%
49+	13.46%	4.53%	3.10%	3.64%	20.20%	19.73%

Some members who are receiving enhanced benefits under 31664.1 are paying an additional 2.60%, 3.530% or 3.885%, depending on their bargaining agreement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire: Miscellaneous Tier 1 (31676.19)				
Entry Age	Basic	COL	Total	Prior Total
20	8.18%	2.34%	10.52%	10.04%
21	8.20%	2.44%	10.64%	10.18%
22	8.20%	2.54%	10.74%	10.28%
23	8.21%	2.64%	10.85%	10.38%
24	8.19%	2.73%	10.92%	10.48%
25	8.17%	2.78%	10.95%	10.55%
26	8.32%	2.86%	11.18%	10.75%
27	8.47%	2.95%	11.42%	10.95%
28	8.64%	3.03%	11.67%	11.15%
29	8.80%	3.11%	11.91%	11.35%
30	8.96%	3.20%	12.16%	11.58%
31	9.13%	3.26%	12.39%	11.79%
32	9.30%	3.32%	12.62%	12.02%
33	9.46%	3.41%	12.87%	12.24%
34	9.64%	3.49%	13.13%	12.49%
35	9.83%	3.58%	13.41%	12.74%
36	10.01%	3.62%	13.63%	12.99%
37	10.20%	3.67%	13.87%	13.24%
38	10.40%	3.72%	14.12%	13.49%
39	10.60%	3.77%	14.37%	13.73%
40	10.80%	3.83%	14.63%	13.99%
41	11.02%	3.85%	14.87%	14.22%
42	11.25%	3.90%	15.15%	14.47%
43	11.49%	3.90%	15.39%	14.74%
44	11.73%	3.87%	15.60%	15.01%
45	11.97%	3.85%	15.82%	15.29%
46	12.21%	3.83%	16.04%	15.53%
47	12.44%	3.78%	16.22%	15.87%
48	12.66%	3.75%	16.41%	16.22%
49	12.85%	3.73%	16.58%	16.64%
50	12.99%	3.72%	16.71%	16.97%
51	13.03%	3.71%	16.74%	16.91%
52	12.99%	3.65%	16.64%	16.65%
53	12.87%	3.59%	16.46%	16.30%
54+	12.74%	3.53%	16.27%	15.93%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 1 (31664.1)				
Entry Age	Basic	COL	Total	Prior Total
20	9.15%	5.20%	14.35%	12.78%
21	9.28%	5.19%	14.47%	12.94%
22	9.44%	5.32%	14.76%	13.16%
23	9.58%	5.46%	15.04%	13.39%
24	9.72%	5.61%	15.33%	13.63%
25	9.88%	5.74%	15.62%	13.87%
26	10.03%	5.85%	15.88%	14.11%
27	10.19%	5.96%	16.15%	14.35%
28	10.34%	6.09%	16.43%	14.60%
29	10.51%	6.22%	16.73%	14.84%
30	10.68%	6.23%	16.91%	15.09%
31	10.85%	6.27%	17.12%	15.39%
32	11.03%	6.36%	17.39%	15.68%
33	11.20%	6.46%	17.66%	15.97%
34	11.39%	6.58%	17.97%	16.26%
35	11.58%	6.71%	18.29%	16.53%
36	11.78%	6.77%	18.55%	16.81%
37	11.99%	6.81%	18.80%	17.10%
38	12.20%	6.85%	19.05%	17.41%
39	12.40%	6.90%	19.30%	17.70%
40	12.60%	6.94%	19.54%	18.01%
41	12.79%	6.99%	19.78%	18.04%
42	12.96%	7.04%	20.00%	18.27%
43	13.10%	7.11%	20.21%	18.55%
44	13.20%	7.11%	20.31%	18.89%
45	13.28%	7.12%	20.40%	19.26%
46	13.30%	7.14%	20.44%	19.51%
47	13.27%	7.17%	20.44%	19.46%
48	13.21%	7.21%	20.42%	19.41%
49+	13.14%	7.26%	20.40%	19.38%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.15%	4.23%	13.38%	12.12%
21	9.29%	4.36%	13.65%	12.37%
22	9.43%	4.50%	13.93%	12.61%
23	9.58%	4.63%	14.21%	12.87%
24	9.72%	4.76%	14.48%	13.11%
25	9.88%	4.86%	14.74%	13.34%
26	10.03%	5.03%	15.06%	13.58%
27	10.19%	5.19%	15.38%	13.83%
28	10.35%	5.33%	15.68%	14.10%
29	10.51%	5.48%	15.99%	14.36%
30	10.68%	5.62%	16.30%	14.62%
31	10.85%	5.74%	16.59%	14.91%
32	11.03%	5.87%	16.90%	15.20%
33	11.21%	5.98%	17.19%	15.48%
34	11.39%	6.09%	17.48%	15.76%
35	11.59%	6.19%	17.78%	15.99%
36	11.78%	6.26%	18.04%	16.18%
37	11.99%	6.26%	18.25%	16.37%
38	12.20%	6.32%	18.52%	16.63%
39	12.40%	6.39%	18.79%	16.87%
40	12.60%	6.48%	19.08%	17.14%
41	12.79%	6.56%	19.35%	17.41%
42	12.95%	6.66%	19.61%	17.70%
43	13.10%	6.73%	19.83%	18.04%
44	13.21%	6.80%	20.01%	18.39%
45	13.28%	6.85%	20.13%	18.78%
46	13.30%	6.70%	20.00%	18.98%
47	13.27%	6.70%	19.97%	18.98%
48	13.20%	6.71%	19.91%	18.99%
49+	13.13%	6.73%	19.86%	19.01%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 2A (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	8.78%	3.87%	12.65%	11.45%
21	8.91%	3.98%	12.89%	11.68%
22	9.05%	4.10%	13.15%	11.91%
23	9.20%	4.22%	13.42%	12.15%
24	9.33%	4.34%	13.67%	12.39%
25	9.48%	4.43%	13.91%	12.60%
26	9.62%	4.58%	14.20%	12.82%
27	9.77%	4.73%	14.50%	13.06%
28	9.93%	4.86%	14.79%	13.30%
29	10.08%	5.00%	15.08%	13.55%
30	10.24%	5.13%	15.37%	13.80%
31	10.41%	5.24%	15.65%	14.07%
32	10.57%	5.36%	15.93%	14.34%
33	10.75%	5.46%	16.21%	14.61%
34	10.93%	5.57%	16.50%	14.87%
35	11.11%	5.66%	16.77%	15.09%
36	11.30%	5.71%	17.01%	15.26%
37	11.49%	5.71%	17.20%	15.46%
38	11.67%	5.76%	17.43%	15.70%
39	11.84%	5.84%	17.68%	15.94%
40	12.00%	5.90%	17.90%	16.18%
41	12.15%	5.98%	18.13%	16.43%
42	12.26%	6.07%	18.33%	16.71%
43	12.35%	6.14%	18.49%	17.04%
44	12.39%	6.19%	18.58%	17.35%
45	12.40%	6.25%	18.65%	17.55%
46	12.36%	6.11%	18.47%	17.50%
47	12.29%	6.11%	18.40%	17.51%
48	12.70%	6.12%	18.82%	17.99%
49+	13.13%	6.14%	19.27%	18.47%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	Marin City CSD Tier 1, LAFCO Tier 7, Tamalpais CSD Tier 1 (31676.11)			Prior Total
	Basic	COL	Total	
20	6.82%	1.74%	8.56%	8.07%
21	6.84%	1.80%	8.64%	8.14%
22	6.83%	1.87%	8.70%	8.22%
23	6.83%	1.94%	8.77%	8.29%
24	6.83%	2.00%	8.83%	8.35%
25	6.82%	2.06%	8.88%	8.41%
26	6.94%	2.14%	9.08%	8.60%
27	7.07%	2.21%	9.28%	8.80%
28	7.21%	2.28%	9.49%	9.01%
29	7.32%	2.36%	9.68%	9.20%
30	7.46%	2.43%	9.89%	9.40%
31	7.61%	2.50%	10.11%	9.60%
32	7.74%	2.57%	10.31%	9.80%
33	7.89%	2.64%	10.53%	10.01%
34	8.04%	2.71%	10.75%	10.23%
35	8.18%	2.79%	10.97%	10.44%
36	8.34%	2.85%	11.19%	10.65%
37	8.50%	2.92%	11.42%	10.87%
38	8.67%	3.00%	11.67%	11.09%
39	8.84%	3.06%	11.90%	11.32%
40	9.01%	3.12%	12.13%	11.54%
41	9.18%	3.18%	12.36%	11.79%
42	9.37%	3.25%	12.62%	12.02%
43	9.57%	3.28%	12.85%	12.27%
44	9.78%	3.30%	13.08%	12.55%
45	9.98%	3.34%	13.32%	12.82%
46	10.17%	3.36%	13.53%	13.09%
47	10.37%	3.36%	13.73%	13.39%
48	10.56%	3.36%	13.92%	13.73%
49	10.72%	3.37%	14.09%	14.12%
50	10.81%	3.39%	14.20%	14.43%
51	10.85%	3.40%	14.25%	14.41%
52	10.83%	3.36%	14.19%	14.23%
53	10.73%	3.34%	14.07%	13.96%
54	10.62%	3.30%	13.92%	13.69%
55	10.51%	3.22%	13.73%	13.50%
56	10.42%	3.12%	13.54%	13.30%
57	10.30%	3.03%	13.33%	13.07%
58	10.19%	2.93%	13.12%	12.86%
59+	10.07%	2.81%	12.88%	12.63%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Mosquito District Tier 1 (31676.14)				
Entry Age	Basic	COL	Total	Prior Total
20	6.35%	1.97%	8.32%	7.83%
21	6.39%	2.04%	8.43%	7.94%
22	6.41%	2.12%	8.53%	8.05%
23	6.44%	2.20%	8.64%	8.15%
24	6.46%	2.27%	8.73%	8.25%
25	6.48%	2.35%	8.83%	8.34%
26	6.49%	2.43%	8.92%	8.44%
27	6.49%	2.50%	8.99%	8.52%
28	6.49%	2.59%	9.08%	8.59%
29	6.48%	2.66%	9.14%	8.67%
30	6.46%	2.75%	9.21%	8.73%
31	6.58%	2.81%	9.39%	8.91%
32	6.71%	2.86%	9.57%	9.08%
33	6.84%	2.93%	9.77%	9.27%
34	6.96%	3.01%	9.97%	9.45%
35	7.09%	3.09%	10.18%	9.64%
36	7.23%	3.14%	10.37%	9.83%
37	7.34%	3.22%	10.56%	10.03%
38	7.49%	3.28%	10.77%	10.23%
39	7.63%	3.34%	10.97%	10.43%
40	7.77%	3.41%	11.18%	10.63%
41	7.91%	3.45%	11.36%	10.83%
42	8.07%	3.51%	11.58%	11.02%
43	8.23%	3.52%	11.75%	11.23%
44	8.39%	3.52%	11.91%	11.45%
45	8.56%	3.54%	12.10%	11.65%
46	8.72%	3.56%	12.28%	11.84%
47	8.90%	3.55%	12.45%	12.06%
48	9.09%	3.53%	12.62%	12.28%
49	9.28%	3.53%	12.81%	12.50%
50	9.47%	3.53%	13.00%	12.71%
51	9.66%	3.53%	13.19%	12.94%
52	9.84%	3.48%	13.32%	13.19%
53	10.01%	3.43%	13.44%	13.34%
54	10.17%	3.37%	13.54%	13.55%
55	10.27%	3.27%	13.54%	13.71%
56	10.30%	3.17%	13.47%	13.55%
57	10.28%	3.07%	13.35%	13.25%
58	10.17%	2.98%	13.15%	12.94%
59+	10.07%	2.83%	12.90%	12.64%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

LAFCO Tier 3 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.12%	1.21%	7.33%	6.87%
21	6.15%	1.25%	7.40%	6.95%
22	6.18%	1.29%	7.47%	7.02%
23	6.21%	1.34%	7.55%	7.11%
24	6.23%	1.38%	7.61%	7.18%
25	6.24%	1.41%	7.65%	7.23%
26	6.24%	1.46%	7.70%	7.29%
27	6.26%	1.51%	7.77%	7.34%
28	6.26%	1.55%	7.81%	7.39%
29	6.25%	1.59%	7.84%	7.43%
30	6.23%	1.64%	7.87%	7.46%
31	6.35%	1.68%	8.03%	7.61%
32	6.47%	1.72%	8.19%	7.77%
33	6.58%	1.76%	8.34%	7.91%
34	6.71%	1.80%	8.51%	8.08%
35	6.83%	1.86%	8.69%	8.24%
36	6.96%	1.89%	8.85%	8.41%
37	7.08%	1.92%	9.00%	8.57%
38	7.22%	1.96%	9.18%	8.74%
39	7.36%	1.99%	9.35%	8.91%
40	7.50%	2.02%	9.52%	9.08%
41	7.63%	2.05%	9.68%	9.24%
42	7.77%	2.09%	9.86%	9.42%
43	7.92%	2.10%	10.02%	9.60%
44	8.08%	2.10%	10.18%	9.78%
45	8.23%	2.10%	10.33%	9.96%
46	8.40%	2.11%	10.51%	10.14%
47	8.57%	2.10%	10.67%	10.32%
48	8.75%	2.09%	10.84%	10.52%
49	8.91%	2.08%	10.99%	10.73%
50	9.08%	2.08%	11.16%	10.93%
51	9.24%	2.08%	11.32%	11.15%
52	9.38%	2.05%	11.43%	11.38%
53	9.50%	2.02%	11.52%	11.55%
54	9.56%	1.99%	11.55%	11.60%
55	9.57%	1.94%	11.51%	11.50%
56	9.52%	1.88%	11.40%	11.28%
57	9.44%	1.81%	11.25%	11.05%
58	9.75%	1.76%	11.51%	11.29%
59+	10.07%	1.68%	11.75%	11.55%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Miscellaneous Tier 1 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.35%	1.94%	8.29%	7.85%
21	6.39%	2.01%	8.40%	7.97%
22	6.41%	2.09%	8.50%	8.06%
23	6.43%	2.16%	8.59%	8.15%
24	6.46%	2.23%	8.69%	8.25%
25	6.48%	2.28%	8.76%	8.34%
26	6.49%	2.35%	8.84%	8.42%
27	6.49%	2.42%	8.91%	8.49%
28	6.49%	2.49%	8.98%	8.55%
29	6.48%	2.57%	9.05%	8.62%
30	6.47%	2.64%	9.11%	8.67%
31	6.59%	2.69%	9.28%	8.85%
32	6.70%	2.76%	9.46%	9.02%
33	6.83%	2.83%	9.66%	9.20%
34	6.96%	2.90%	9.86%	9.38%
35	7.08%	2.98%	10.06%	9.57%
36	7.22%	3.02%	10.24%	9.76%
37	7.35%	3.08%	10.43%	9.95%
38	7.50%	3.13%	10.63%	10.14%
39	7.63%	3.19%	10.82%	10.33%
40	7.78%	3.25%	11.03%	10.53%
41	7.91%	3.28%	11.19%	10.72%
42	8.07%	3.34%	11.41%	10.90%
43	8.23%	3.35%	11.58%	11.11%
44	8.39%	3.34%	11.73%	11.31%
45	8.56%	3.35%	11.91%	11.52%
46	8.72%	3.35%	12.07%	11.69%
47	8.90%	3.33%	12.23%	11.90%
48	9.09%	3.32%	12.41%	12.11%
49	9.28%	3.31%	12.59%	12.33%
50	9.47%	3.31%	12.78%	12.52%
51	9.65%	3.31%	12.96%	12.76%
52	9.84%	3.26%	13.10%	13.00%
53	10.01%	3.22%	13.23%	13.16%
54	10.16%	3.17%	13.33%	13.38%
55	10.27%	3.07%	13.34%	13.54%
56	10.30%	2.97%	13.27%	13.39%
57	10.28%	2.87%	13.15%	13.09%
58	10.17%	2.78%	12.95%	12.80%
59+	10.07%	2.65%	12.72%	12.50%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Safety: Tier 1 (31664.1)				
Entry Age	Basic	COL	Total	Prior Total
20	9.15%	5.24%	14.39%	12.84%
21	9.29%	5.23%	14.52%	13.01%
22	9.43%	5.37%	14.80%	13.24%
23	9.58%	5.50%	15.08%	13.47%
24	9.73%	5.65%	15.38%	13.71%
25	9.87%	5.80%	15.67%	13.95%
26	10.03%	5.90%	15.93%	14.19%
27	10.18%	6.02%	16.20%	14.43%
28	10.35%	6.15%	16.50%	14.69%
29	10.51%	6.28%	16.79%	14.94%
30	10.68%	6.29%	16.97%	15.19%
31	10.85%	6.33%	17.18%	15.49%
32	11.03%	6.42%	17.45%	15.78%
33	11.20%	6.52%	17.72%	16.07%
34	11.40%	6.64%	18.04%	16.36%
35	11.58%	6.78%	18.36%	16.63%
36	11.78%	6.83%	18.61%	16.93%
37	11.99%	6.89%	18.88%	17.21%
38	12.20%	6.93%	19.13%	17.52%
39	12.40%	6.97%	19.37%	17.82%
40	12.60%	7.00%	19.60%	18.12%
41	12.79%	7.05%	19.84%	18.15%
42	12.95%	7.12%	20.07%	18.38%
43	13.10%	7.17%	20.27%	18.67%
44	13.21%	7.17%	20.38%	19.00%
45	13.28%	7.18%	20.46%	19.38%
46	13.30%	7.21%	20.51%	19.62%
47	13.27%	7.24%	20.51%	19.58%
48	13.21%	7.28%	20.49%	19.54%
49+	13.13%	7.34%	20.47%	19.49%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Safety: Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.15%	4.28%	13.43%	12.18%
21	9.29%	4.40%	13.69%	12.42%
22	9.43%	4.53%	13.96%	12.67%
23	9.58%	4.67%	14.25%	12.93%
24	9.73%	4.80%	14.53%	13.17%
25	9.87%	4.91%	14.78%	13.42%
26	10.03%	5.07%	15.10%	13.66%
27	10.19%	5.23%	15.42%	13.91%
28	10.34%	5.38%	15.72%	14.17%
29	10.52%	5.53%	16.05%	14.44%
30	10.68%	5.67%	16.35%	14.72%
31	10.84%	5.81%	16.65%	15.00%
32	11.03%	5.93%	16.96%	15.28%
33	11.20%	6.05%	17.25%	15.57%
34	11.40%	6.15%	17.55%	15.86%
35	11.58%	6.26%	17.84%	16.09%
36	11.78%	6.32%	18.10%	16.28%
37	11.99%	6.32%	18.31%	16.47%
38	12.20%	6.38%	18.58%	16.73%
39	12.40%	6.46%	18.86%	16.98%
40	12.60%	6.54%	19.14%	17.24%
41	12.79%	6.62%	19.41%	17.51%
42	12.95%	6.72%	19.67%	17.81%
43	13.10%	6.79%	19.89%	18.14%
44	13.20%	6.87%	20.07%	18.51%
45	13.28%	6.93%	20.21%	18.89%
46	13.30%	6.77%	20.07%	19.09%
47	13.27%	6.76%	20.03%	19.10%
48	13.21%	6.77%	19.98%	19.11%
49+	13.13%	6.79%	19.92%	19.12%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Miscellaneous Tier 1 (31676.19)				
Entry Age	Basic	COL	Total	Prior Total
20	8.19%	2.23%	10.42%	9.95%
21	8.19%	2.33%	10.52%	10.07%
22	8.21%	2.43%	10.64%	10.19%
23	8.20%	2.53%	10.73%	10.28%
24	8.20%	2.61%	10.81%	10.38%
25	8.18%	2.66%	10.84%	10.45%
26	8.32%	2.74%	11.06%	10.65%
27	8.48%	2.82%	11.30%	10.85%
28	8.64%	2.89%	11.53%	11.05%
29	8.79%	2.98%	11.77%	11.25%
30	8.96%	3.06%	12.02%	11.47%
31	9.13%	3.12%	12.25%	11.69%
32	9.29%	3.19%	12.48%	11.91%
33	9.46%	3.27%	12.73%	12.14%
34	9.65%	3.34%	12.99%	12.38%
35	9.82%	3.43%	13.25%	12.63%
36	10.01%	3.47%	13.48%	12.87%
37	10.20%	3.52%	13.72%	13.12%
38	10.40%	3.57%	13.97%	13.36%
39	10.59%	3.62%	14.21%	13.60%
40	10.80%	3.67%	14.47%	13.87%
41	11.03%	3.69%	14.72%	14.10%
42	11.25%	3.74%	14.99%	14.35%
43	11.49%	3.73%	15.22%	14.61%
44	11.73%	3.71%	15.44%	14.88%
45	11.97%	3.69%	15.66%	15.17%
46	12.21%	3.68%	15.89%	15.42%
47	12.44%	3.64%	16.08%	15.74%
48	12.67%	3.59%	16.26%	16.10%
49	12.85%	3.58%	16.43%	16.52%
50	12.99%	3.57%	16.56%	16.85%
51	13.03%	3.56%	16.59%	16.78%
52	13.00%	3.50%	16.50%	16.54%
53	12.86%	3.45%	16.31%	16.18%
54+	12.73%	3.40%	16.13%	15.82%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Miscellaneous Tier 2 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.12%	1.22%	7.34%	6.89%
21	6.15%	1.26%	7.41%	6.97%
22	6.18%	1.30%	7.48%	7.05%
23	6.21%	1.35%	7.56%	7.14%
24	6.23%	1.39%	7.62%	7.21%
25	6.24%	1.41%	7.65%	7.26%
26	6.24%	1.46%	7.70%	7.33%
27	6.26%	1.50%	7.76%	7.37%
28	6.26%	1.54%	7.80%	7.41%
29	6.25%	1.59%	7.84%	7.44%
30	6.23%	1.64%	7.87%	7.47%
31	6.35%	1.67%	8.02%	7.62%
32	6.46%	1.70%	8.16%	7.78%
33	6.58%	1.74%	8.32%	7.92%
34	6.71%	1.79%	8.50%	8.08%
35	6.84%	1.83%	8.67%	8.24%
36	6.95%	1.86%	8.81%	8.41%
37	7.08%	1.90%	8.98%	8.56%
38	7.22%	1.93%	9.15%	8.73%
39	7.36%	1.96%	9.32%	8.89%
40	7.50%	1.99%	9.49%	9.06%
41	7.63%	2.01%	9.64%	9.23%
42	7.78%	2.05%	9.83%	9.41%
43	7.92%	2.08%	10.00%	9.60%
44	8.08%	2.09%	10.17%	9.79%
45	8.23%	2.11%	10.34%	9.99%
46	8.40%	2.12%	10.52%	10.16%
47	8.57%	2.11%	10.68%	10.36%
48	8.75%	2.10%	10.85%	10.55%
49	8.92%	2.09%	11.01%	10.75%
50	9.08%	2.09%	11.17%	10.95%
51	9.24%	2.09%	11.33%	11.17%
52	9.39%	2.06%	11.45%	11.41%
53	9.50%	2.03%	11.53%	11.58%
54	9.56%	2.00%	11.56%	11.62%
55	9.57%	1.94%	11.51%	11.52%
56	9.52%	1.89%	11.41%	11.31%
57	9.44%	1.82%	11.26%	11.07%
58	9.75%	1.77%	11.52%	11.31%
59+	10.07%	1.69%	11.76%	11.57%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Safety Tier 1 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.15%	4.06%	13.21%	11.98%
21	9.29%	4.17%	13.46%	12.21%
22	9.43%	4.30%	13.73%	12.46%
23	9.58%	4.42%	14.00%	12.71%
24	9.73%	4.55%	14.28%	12.95%
25	9.88%	4.65%	14.53%	13.19%
26	10.03%	4.81%	14.84%	13.43%
27	10.19%	4.96%	15.15%	13.67%
28	10.35%	5.10%	15.45%	13.93%
29	10.51%	5.24%	15.75%	14.18%
30	10.68%	5.38%	16.06%	14.45%
31	10.85%	5.50%	16.35%	14.74%
32	11.02%	5.62%	16.64%	15.01%
33	11.21%	5.73%	16.94%	15.29%
34	11.39%	5.84%	17.23%	15.56%
35	11.58%	5.93%	17.51%	15.81%
36	11.79%	5.98%	17.77%	15.98%
37	11.99%	6.00%	17.99%	16.18%
38	12.20%	6.06%	18.26%	16.43%
39	12.40%	6.12%	18.52%	16.68%
40	12.60%	6.20%	18.80%	16.94%
41	12.79%	6.29%	19.08%	17.21%
42	12.96%	6.37%	19.33%	17.49%
43	13.10%	6.45%	19.55%	17.83%
44	13.20%	6.51%	19.71%	18.18%
45	13.28%	6.57%	19.85%	18.56%
46	13.31%	6.42%	19.73%	18.76%
47	13.27%	6.41%	19.68%	18.77%
48	13.21%	6.42%	19.63%	18.78%
49+	13.13%	6.46%	19.59%	18.79%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Safety Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	8.78%	2.62%	11.40%	10.34%
21	8.91%	2.70%	11.61%	10.54%
22	9.05%	2.78%	11.83%	10.73%
23	9.19%	2.87%	12.06%	10.95%
24	9.32%	2.95%	12.27%	11.15%
25	9.47%	3.02%	12.49%	11.35%
26	9.62%	3.11%	12.73%	11.54%
27	9.77%	3.22%	12.99%	11.76%
28	9.93%	3.31%	13.24%	11.97%
29	10.08%	3.41%	13.49%	12.19%
30	10.24%	3.49%	13.73%	12.40%
31	10.41%	3.57%	13.98%	12.63%
32	10.57%	3.65%	14.22%	12.87%
33	10.75%	3.72%	14.47%	13.10%
34	10.94%	3.79%	14.73%	13.33%
35	11.11%	3.86%	14.97%	13.53%
36	11.30%	3.90%	15.20%	13.71%
37	11.49%	3.90%	15.39%	13.90%
38	11.67%	3.94%	15.61%	14.12%
39	11.85%	3.99%	15.84%	14.34%
40	12.00%	4.04%	16.04%	14.57%
41	12.15%	4.10%	16.25%	14.80%
42	12.26%	4.16%	16.42%	15.05%
43	12.35%	4.20%	16.55%	15.34%
44	12.38%	4.26%	16.64%	15.63%
45	12.40%	4.29%	16.69%	15.79%
46	12.36%	4.20%	16.56%	15.77%
47	12.30%	4.20%	16.50%	15.77%
48	12.71%	4.21%	16.92%	16.22%
49+	13.14%	4.22%	17.36%	16.69%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E – MEMBER CONTRIBUTION RATES

PEPRA Rates					
All Ages	Basic	COLA	Total		Prior Total
PEPRA Misc 2% COLA	7.72%	1.58%	9.30%		9.06%
PEPRA Misc 4% COLA	8.33%	2.59%	10.92%		10.01%
PEPRA Safety 2% COLA	11.16%	2.82%	13.98%		13.07%
PEPRA Safety 3% COLA	12.61%	4.57%	17.18%		16.72%
PEPRA Safety 4% COLA	11.83%	4.47%	16.30%		14.81%



Classic Values, Innovative Advice