

# **Mendocino County Employees' Retirement Association**

**Governmental Accounting Standards (GAS) 68  
Actuarial Valuation based on  
June 30, 2016 Measurement Date  
for Employer Reporting as of June 30, 2017**

This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the MCERA pension plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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*September 11, 2017*

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

*Dear Board Members:*

*We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on a June 30, 2016 measurement date for employer reporting as of June 30, 2017. It contains various information that will need to be disclosed in order for MCERA employers to comply with GAS 68.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the MCERA pension plan. The census and financial information on which our calculations were based was provided by MCERA. That assistance is gratefully acknowledged.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.*

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

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

*Sincerely,*

*Segal Consulting, a Member of The Segal Group, Inc.*

*By:*

*Paul Angelo, FSA, MAAA, FCA, EA  
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*DNA/bbf*

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## **SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association**

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### **Purpose**

This report has been prepared by Segal Consulting to present certain disclosure information required by Governmental Accounting Standards (GAS) 68 for employer reporting as of June 30, 2017. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standards (GAS) 67 report for the plan based on a reporting date and a measurement date as of June 30, 2016. This valuation is based on:

- The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2016, provided by the Retirement Association;
- The assets of the Plan as of June 30, 2016, provided by the Retirement Association;
- Economic assumptions\* regarding future salary increases and investment earnings; and
- Other actuarial assumptions\*, regarding employee terminations, retirement, death, etc.

\* Under the Board's practice, these assumptions have been carried over unchanged from the June 30, 2015 valuation. MCERA has conducted a full review of all the assumptions in the 2017 experience study report dated April 14, 2017 as part of the June 30, 2017 valuation.

### **General Observations on GAS 68 Actuarial Valuation**

The following points should be considered when reviewing this GAS 68 report:

- The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as MCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as MCERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is the same as the Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over a five-year period.

## SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association

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- For this report, the reporting dates for the employer are June 30, 2017 and 2016. The NPL was measured as of June 30, 2016 and 2015 and determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively. Plan Fiduciary Net Position (plan assets) and the TPL were valued as of the measurement dates. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2016 and 2015 are not adjusted or rolled forward to the June 30, 2017 and 2016 reporting dates, respectively.

### Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The NPL increased from \$166.2 million as of June 30, 2015 to \$205.7 million as of June 30, 2016, mainly as a result of the return on the market value of assets of -2.35% during 2015/2016 that was less than the assumption of 7.25% used in the June 30, 2015 valuation (that loss was about \$42.3 million).

Changes in these values during the last two fiscal years ending June 30, 2015 and June 30, 2016 can be found in Exhibit 5.

- The discount rate used to measure the TPL and NPL as of June 30, 2016 and 2015 was 7.25%, following the same assumptions used by the Association in the pension funding valuations as of the same valuation dates. The detailed calculations used in the derivation of the discount rate of 7.25% used in the calculation of the TPL and NPL as of June 30, 2016 can be found in Appendix A of Section 3. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 13 in Section 2.
- The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

For the General membership class, the NPLs as of June 30, 2015 and June 30, 2016 are allocated based on the actual employer contributions within that class made during 2014/2015 and 2015/2016, respectively. The steps we used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

The NPL allocation can be found in Exhibit 7 in Section 2.

## **SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association**

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- Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2016. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.

## SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association

### Summary of Key Valuation Results

Reporting Date for Employer under GAS 68	6/30/2017 <sup>(1)</sup>	6/30/2016 <sup>(2)</sup>
Measurement Date for Employer under GAS 68	6/30/2016	6/30/2015
<b>Disclosure elements for fiscal year ending June 30:</b>		
1. Service cost <sup>(3)</sup>	\$12,125,153	\$12,058,526
2. Total Pension Liability	632,057,539	610,381,849
3. Plan Fiduciary Net Position	426,338,011	444,217,356
4. Net Pension Liability	205,719,528	166,164,493
5. Pension expense	38,197,506	30,117,433
<b>Schedule of contributions for fiscal year ending June 30:</b>		
6. Actuarially determined contributions	\$19,129,191	\$15,164,044
7. Actual contributions	19,129,191	15,164,044
8. Contribution deficiency (excess) (6) – (7)	0	0
<b>Demographic data for plan year ending June 30:</b>		
9. Number of retired members and beneficiaries	1,416	1,379
10. Number of vested terminated members <sup>(4)</sup>	428	414
11. Number of active members	1,123	1,107
<b>Key assumptions as of June 30:</b>		
12. Investment rate of return	7.25%	7.25%
13. Inflation rate	3.25%	3.25%
14. Projected salary increases <sup>(5)</sup>	Ranges from 8.75% to 4.25% based on years of service	Ranges from 8.75% to 4.25% based on years of service

<sup>(1)</sup> The reporting date and measurement date for the plan are June 30, 2016.

<sup>(2)</sup> The reporting date and measurement date for the plan are June 30, 2015.

<sup>(3)</sup> The service cost is always based on the previous year's assumptions, meaning the June 30, 2016 value is based on those assumptions shown as of June 30, 2015, whereas the June 30, 2015 value is based on the June 30, 2014 assumptions (which are the same as the June 30, 2015 assumptions shown above).

<sup>(4)</sup> Includes terminated members due a refund of employee contributions.

<sup>(5)</sup> Includes inflation at 3.25% plus real across the board salary increase of 0.50% plus merit and promotional increases that vary by service.

## SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association

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### Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by the Association. The Association uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

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

- The actuarial valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.



## **SECTION 1: Valuation Summary for the Mendocino County Employees' Retirement Association**

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- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

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

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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### EXHIBIT 1

#### General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing Pension Plan

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##### Plan Description

*Plan administration.* The Mendocino County Employees' Retirement Association (MCERA) was established by the County of Mendocino on January 1, 1948. MCERA is administered by the Board of Retirement (Board) and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). MCERA is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the General and Safety (Law Enforcement or Probation) members employed by the County of Mendocino. MCERA also provides retirement benefits to the employee members of the Mendocino County Courts and the Russian River Cemetery District.

The management of MCERA is vested with the Mendocino County Board of Retirement. The Board consists of nine members and one alternate. The County Treasurer is a member of the Board of Retirement by law. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two members are elected by the General membership, one member is elected by the Safety membership, and one member is elected by the retired members of the Association. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with her term as County Treasurer.

*Plan membership.* At June 30, 2016, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	1,416
Vested terminated members entitled to, but not yet receiving benefits <sup>(1)</sup>	428
Active members	<u>1,123</u>
Total	2,967

<sup>(1)</sup> Includes terminated members due a refund of employee contributions.

*Benefits provided.* MCERA provides service retirement, disability, death and survivor benefits to eligible employees. All permanent employees of the County of Mendocino or contracting districts who work at least 32 hours per week become members of MCERA effective on the first day of the pay period following employment (although, employees who are age 60 or older at their date of hire may waive MCERA membership). There are separate retirement plans for General, Safety, and Probation member employees. Any new employees who become members on or after January 1, 2013 are subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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General members hired prior to January 1, 2013 are eligible to retire once they attain the age of 50 and have acquired 5 or more years of retirement service credit and 10 years of membership. A member with 30 years of service is eligible to retire regardless of age. A vested member who is age 70 or older is eligible to retire. General members who are first hired on or after January 1, 2013 are eligible to retire once they have attained the age of 52, and have acquired 5 years of retirement service credit, or age 70 and vested.

Safety and Probation members hired prior to January 1, 2013 are eligible to retire once they attain the age of 50 and have acquired 5 or more years of retirement service credit and 10 years of membership. A member with 20 years of service is eligible to retire regardless of age. A vested member who is age 70 or older is eligible to retire. Safety and Probation members who are first hired on or after January 1, 2013 are eligible to retire once they have attained the age of 50, and have acquired 5 years of retirement service credit, or age 70 and vested.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General member benefits are calculated pursuant to the provisions of Section 31676.12<sup>1</sup>. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times the age factor from Section 31676.12. General member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation<sup>2</sup> multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety member benefits are calculated pursuant to the provisions of Section 31664.2. The monthly allowance is equal to 3% of final compensation times years of accrued retirement service credit times the age factor from Section 31664.2. Safety member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

Probation member benefits are calculated pursuant to the provisions of Section 31664. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times the age factor from Section 31664. Probation member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of

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

<sup>2</sup> California Government Code Section 7522.32(a) states that "Final compensation shall mean the highest average annual pensionable compensation earned by the member during a period of at least 36 consecutive months, or at least three consecutive school years if applicable, immediately preceding his or her retirement or last separation from service if earlier, or during any other period of at least 36 consecutive months, or at least three consecutive school years if applicable, during the member's applicable service that the member designates on the application for retirement."

## **SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

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California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation.

Final average compensation consists of the highest 12 consecutive months of pay for a General Tier 1, Safety Tier 1, or Probation Tier 1 member, and the highest 36 consecutive months for all other members.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is someone who is married to or registered with the member one year prior to the effective retirement date. There are two optional retirement allowances the member may choose, that is, Option 1 (cash refund) and Option 2 (100% continuance). Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

MCERA provides an annual cost-of-living benefit to all non-PEPRA retirees. The cost-of-living adjustment, based upon the Consumer Price Index prepared by the Bureau of Labor Statistics that applies to the West Region, is capped at 3.0%.

The County of Mendocino and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from MCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2016 for 2015-2016 (based on the June 30, 2014 valuation) was 33.32% of compensation.

All members are required to make contributions to MCERA regardless of the retirement plan or tier in which they are included; however, non-PEPRA members with 30 or more years of service are exempt from paying member contributions. The average member contribution rate as of June 30, 2016 for 2015-2016 (based on the June 30, 2014 valuation) was 9.66% of compensation.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 2

#### Net Pension Liability

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
The components of the Net Pension Liability are as follows:		
Total Pension Liability	\$632,057,539	\$610,381,849
Plan Fiduciary Net Position	<u>426,338,011</u>	<u>444,217,356</u>
Net Pension Liability	\$205,719,528	\$166,164,493
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.5%	72.8%

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2016 and 2015. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of June 30, 2016 and 2015 are the same as those used in the MCERA funding valuations as of June 30, 2016 and 2015, respectively.

*Actuarial assumptions.* The TPLs as of June 30, 2016 and June 30, 2015 were determined by actuarial valuations as of June 30, 2016 and June 30, 2015, respectively. The actuarial assumptions used in this June 30, 2016 valuation (and in the June 30, 2015 valuation) were based on the results of an experience study for the period from July 1, 2011 through June 30, 2014. They are the same as the assumptions used in the June 30, 2016 funding actuarial valuation for MCERA. The assumptions are outlined on page 34 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.25%
Salary increases	Ranges from 8.75% to 4.25% based on years of service, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in the June 30, 2016 funding actuarial valuation

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 3

#### Target Asset Allocation

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term (Arithmetic) Expected Real Rate of Return
U.S. Large Cap Equity	26.2%	5.86%
U.S. Small Cap Equity	11.8%	6.56%
Global Equity	25.0%	6.85%
Domestic Fixed Income	28.0%	0.71%
Real Estate	<u>9.0%</u>	4.76%
<b>Total</b>	100.0%	

*Discount rate:* The discount rate used to measure the TPL was 7.25% as of June 30, 2016 and June 30, 2015. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2016 and June 30, 2015.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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### EXHIBIT 4

#### Discount Rate Sensitivity

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*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the NPL of MCERA as of June 30, 2016, which is allocated to all employers, calculated using the discount rate of 7.25%, as well as what MCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

Net Pension Liability	1% Decrease (6.25%)	Current Discount (7.25%)	1% Increase (8.25%)
County of Mendocino	\$269,504,646	\$193,097,508	\$130,009,084
Mendocino County Courts	16,568,564	11,919,321	8,059,757
Russian River Cemetery District	<u>976,793</u>	<u>702,699</u>	<u>475,160</u>
Total for all Employers	\$287,050,003	\$205,719,528	\$138,544,001

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 5

#### Schedule of Changes in Net Pension Liability – Last Two Fiscal Years

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
<b>Total Pension Liability</b>		
1. Service cost	\$12,125,153	\$12,058,526
2. Interest	44,005,882	42,156,056
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	-3,396,702	1,787,516
5. Changes of assumptions	0	0
6. Benefit payments, including refunds of member contributions	<u>-31,058,643</u>	<u>-30,049,133</u>
7. Net change in Total Pension Liability	\$21,675,690	\$25,952,965
8. Total Pension Liability – beginning	<u>610,381,849</u>	<u>584,428,884</u>
9. Total Pension Liability – ending	<u>\$632,057,539</u>	<u>\$610,381,849</u>
<b>Plan Fiduciary Net Position</b>		
10. Contributions – employer	\$19,129,191	\$15,164,044
11. Contributions – employee	5,544,925	4,651,960
12. Net investment income	-10,352,325	13,201,309
13. Benefit payments, including refunds of member contributions	-31,058,643	-30,049,133
14. Administrative expense	-1,142,493	-1,059,272
15. Other	<u>0</u>	<u>0</u>
16. Net change in Plan Fiduciary Net Position	-\$17,879,345	\$1,908,908
17. Plan Fiduciary Net Position – beginning	<u>444,217,356</u>	<u>442,308,448</u>
18. Plan Fiduciary Net Position – ending	<u>\$426,338,011</u>	<u>\$444,217,356</u>
19. Net Pension Liability – ending: (9) – (18)	<u>\$205,719,528</u>	<u>\$166,164,493</u>
20. Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.5%	72.8%
21. Covered-employee payroll <sup>(1)</sup>	\$57,407,928	\$54,891,785
22. Plan Net Pension Liability as percentage of covered-employee payroll	358.3%	302.7%

<sup>(1)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.



**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 6**

**Schedule of MCERA's Contributions – Last Ten Fiscal Years<sup>(1)</sup>**

<b>Year Ended June 30,</b>	<b>Actuarially Determined Contributions<sup>(2)</sup></b>	<b>Contributions in Relation to the Actuarially Determined Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered-Employee Payroll<sup>(3)</sup></b>	<b>Contributions as a Percentage of Covered- Employee Payroll</b>
2007	\$7,533,000	Not Disclosed in Prior Funding Valuation Reports	N/A	\$64,214,811	N/A
2008	7,232,000		N/A	68,447,683	N/A
2009	6,046,000		N/A	72,565,457	N/A
2010	9,571,000		N/A	70,384,677	N/A
2011	9,553,955	\$9,553,955	\$0	64,252,118	14.87%
2012	11,811,076	11,811,076	0	56,291,191	20.98%
2013	14,260,473	14,260,473	0	53,254,876	26.78%
2014	14,324,752	14,324,752	0	53,813,882	26.62%
2015	15,164,044	15,164,044	0	54,891,785	27.63%
2016	19,129,191	19,129,191	0	57,407,928	33.32%

*See accompanying notes to this schedule on next page.*

<sup>(1)</sup> Information prior to 2011 has been extracted from the previous actuary's past valuation reports.

<sup>(2)</sup> Prior to year ending June 30, 2014, this amount was the Annual Required Contribution (ARC).

<sup>(3)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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### Notes to Exhibit 6

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#### Methods and assumptions used to establish "actuarially determined contribution" (ADC) rates:

<b>Valuation date</b>	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
<b>Actuarial cost method</b>	Entry Age Cost Method (individual basis)
<b>Amortization method</b>	Level percent of payroll for total unfunded liability
<b>Remaining amortization period</b>	Prior to July 1, 2012, the total UAAL was being amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012 (and 23 years remaining as of June 30, 2016). On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.
<b>Asset valuation method</b>	Market Value of Assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 25% of the market value. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
<b>Actuarial assumptions:</b>	<u>June 30, 2014 (for the year ended June 30, 2016 ADC)</u>
Investment rate of return	7.25%
Inflation rate	3.25%
Real across-the-board salary increase	0.50%
Projected salary increases*	Ranges from 8.75% to 4.25%, based on years of service
Cost of living adjustments	3.00% of retirement income for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females
Other assumptions	Same as those used in the June 30, 2014 funding actuarial valuation

\* Includes inflation at 3.25% plus across the board salary increases of 0.50% plus merit and promotional increases that vary by service.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 7

#### Determination of Proportionate Share

##### Actual Employer Contributions by Employer and Membership Class July 1, 2014 to June 30, 2015

Employer	General	General Percentage <sup>(1)</sup>	Safety	Safety Percentage	Probation	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$9,703,567	90.446%	\$3,685,471	100.000%	\$750,003	100.000%	\$14,139,041	93.241%
Mendocino County Courts	975,397	9.092%	0	0.000%	0	0.000%	975,397	6.432%
Russian River Cemetery District	<u>49,606</u>	<u>0.462%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>49,606</u>	<u>0.327%</u>
Total for all Employers	\$10,728,570	100.000%	\$3,685,471	100.000%	\$750,003	100.000%	\$15,164,044	100.000%

<sup>(1)</sup> The unrounded percentages are used in the allocation of the NPL amongst the General employers.

##### Allocation of June 30, 2015 Net Pension Liability

Employer	General	General Percentage	Safety	Safety Percentage	Probation	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$106,408,826	90.446%	\$42,960,066	100.000%	\$5,555,469	100.000%	\$154,924,361	93.236%
Mendocino County Courts	10,696,155	9.092%	0	0.000%	0	0.000%	10,696,155	6.437%
Russian River Cemetery District	<u>543,977</u>	<u>0.462%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>543,977</u>	<u>0.327%</u>
Total for all Employers	\$117,648,958	100.000%	\$42,960,066	100.000%	\$5,555,469	100.000%	\$166,164,493	100.000%

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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##### Notes:

Based on the July 1, 2014 through June 30, 2015 employer contributions as provided by MCERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total MCERA Plan Fiduciary Net Position to total MCERA valuation value of assets.

The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

For the General membership class, the NPL is allocated based on the actual employer contributions within that membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2016. The reporting date and measurement date for the plan under GAS 67 are June 30, 2015. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2015 are not adjusted or "rolled forward" to the June 30, 2016 reporting date. Other results, such as the total deferred inflows and outflows, would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share within each membership class:

- 1) Net Pension Liability
- 2) Service cost
- 3) Interest on the Total Pension Liability
- 4) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 5) Expensed portion of current-period changes of assumptions or other inputs
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

##### Actual Employer Contributions by Employer and Membership Class July 1, 2015 to June 30, 2016

Employer	General	General Percentage <sup>(1)</sup>	Safety	Safety Percentage	Probation	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$12,504,761	91.385%	\$4,501,972	100.000%	\$943,598	100.000%	\$17,950,331	93.837%
Mendocino County Courts	1,113,230	8.135%	0	0.000%	0	0.000%	1,113,230	5.820%
Russian River Cemetery District	<u>65,630</u>	<u>0.480%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>65,630</u>	<u>0.343%</u>
Total for all Employers	\$13,683,621	100.000%	\$4,501,972	100.000%	\$943,598	100.000%	\$19,129,191	100.000%

<sup>(1)</sup> The unrounded percentages are used in the allocation of the NPL amongst the General employers.

##### Allocation of June 30, 2016 Net Pension Liability

Employer	General	General Percentage	Safety	Safety Percentage	Probation	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$133,888,118	91.385%	\$51,841,780	100.000%	\$7,367,610	100.000%	\$193,097,508	93.864%
Mendocino County Courts	11,919,321	8.135%	0	0.000%	0	0.000%	11,919,321	5.794%
Russian River Cemetery District	<u>702,699</u>	<u>0.480%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>702,699</u>	<u>0.342%</u>
Total for all Employers	\$146,510,138	100.000%	\$51,841,780	100.000%	\$7,367,610	100.000%	\$205,719,528	100.000%

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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##### Notes:

Based on the July 1, 2015 through June 30, 2016 employer contributions as provided by MCERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total MCERA Plan Fiduciary Net Position to total MCERA valuation value of assets.

The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

For the General membership class, the NPL is allocated based on the actual employer contributions within that membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2017. The reporting date and measurement date for the plan under GAS 67 are June 30, 2016. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2016 are not adjusted or "rolled forward" to the June 30, 2017 reporting date. Other results, such as the total deferred inflows and outflows, would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share within each membership class:

- 1) Net Pension Liability
- 2) Service cost
- 3) Interest on the Total Pension Liability
- 4) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 5) Expensed portion of current-period changes of assumptions or other inputs
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 8****Pension Expense – Total for all Employers**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$12,125,153	\$12,058,526
2. Interest on the Total Pension Liability	44,005,882	42,156,056
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-1,208,791	631,631
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-5,544,925	-4,651,960
8. Projected earnings on plan investments	-31,932,904	-31,658,013
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	8,457,046	3,691,341
10. Administrative expense	1,142,493	1,059,272
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	22,334,525	17,013,717
13. Recognition of beginning of year deferred inflows of resources as pension expense	-11,180,973	-10,183,137
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b><u>\$38,197,506</u></b>	<b><u>\$30,117,433</u></b>

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 8 (continued)****Pension Expense – County of Mendocino**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$11,368,969	\$11,225,288
2. Interest on the Total Pension Liability	41,228,923	39,170,350
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	372,083	551,353
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-1,115,150	726,964
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-5,178,636	-4,281,990
8. Projected earnings on plan investments	-29,892,181	-29,399,170
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	7,910,898	3,407,829
10. Administrative expense	1,070,948	984,703
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	21,042,082	15,863,940
13. Recognition of beginning of year deferred inflows of resources as pension expense	-10,394,863	-9,406,693
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>126,796</u>	<u>-424,557</u>
<b>Pension Expense</b>	<b><u>\$36,539,869</u></b>	<b><u>\$28,418,017</u></b>



**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 8 (continued)****Pension Expense – Mendocino County Courts**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$714,085	\$792,912
2. Interest on the Total Pension Liability	2,622,359	2,841,210
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-378,920	-535,706
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-88,428	-90,719
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-345,897	-352,065
8. Projected earnings on plan investments	-1,927,111	-2,149,524
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	515,743	269,791
10. Administrative expense	67,562	70,960
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	1,220,490	1,094,132
13. Recognition of beginning of year deferred inflows of resources as pension expense	-742,345	-738,867
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-123,463</u>	<u>412,243</u>
<b>Pension Expense</b>	<b><u>\$1,534,075</u></b>	<b><u>\$1,614,367</u></b>

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 8 (continued)****Pension Expense – Russian River Cemetery District**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$42,099	\$40,326
2. Interest on the Total Pension Liability	154,600	144,496
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	6,837	-15,647
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-5,213	-4,614
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-20,392	-17,905
8. Projected earnings on plan investments	-113,612	-109,319
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	30,405	13,721
10. Administrative expense	3,983	3,609
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	71,953	55,645
13. Recognition of beginning of year deferred inflows of resources as pension expense	-43,765	-37,577
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-3,333</u>	<u>12,314</u>
<b>Pension Expense</b>	<b><u>\$123,562</u></b>	<b><u>\$85,049</u></b>

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 9

#### Deferred Outflows of Resources and Deferred Inflows of Resources – Total for all Employers

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,321,784	\$1,611,849
2. Changes of assumptions or other inputs	7,145,762	24,159,479
3. Net excess of projected over actual earnings on pension plan investments (if any)	29,237,885	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>1,352,457</u>	<u>2,981,924</u>
5. Total deferred outflows of resources	\$39,057,888	\$28,753,252
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,321,784	\$1,611,849
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	8,731,117
9. Difference between expected and actual experience in the Total Pension Liability	<u>4,003,526</u>	<u>5,164,428</u>
10. Total deferred inflows of resources	\$5,325,310	\$15,507,394

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

#### Reporting Date for Employer under GAS 68, Year Ended June 30:

2017	N/A	\$11,153,552
2018	\$9,790,040	2,541,785
2019	3,337,107	-4,140,819
2020	12,148,386	3,691,340
2021	8,457,045	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 9 (continued)

#### Deferred Outflows of Resources and Deferred Inflows of Resources – County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,131,093	\$1,008,976
2. Changes of assumptions or other inputs	6,710,309	22,526,796
3. Net excess of projected over actual earnings on pension plan investments (if any)	27,301,614	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>1,352,457</u>	<u>2,981,924</u>
5. Total deferred outflows of resources	\$36,495,473	\$26,517,696
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$178,316	\$602,873
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	8,176,286
9. Difference between expected and actual experience in the Total Pension Liability	<u>3,681,833</u>	<u>4,686,822</u>
10. Total deferred inflows of resources	\$3,860,149	\$13,465,981

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

#### Reporting Date for Employer under GAS 68, Year Ended June 30:

2017	N/A	\$10,718,835
2018	\$9,957,660	2,786,423
2019	3,420,182	-3,861,371
2020	11,346,586	3,407,828
2021	7,910,896	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 9 (continued)

#### Deferred Outflows of Resources and Deferred Inflows of Resources – Mendocino County Courts

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$173,143	\$585,386
2. Changes of assumptions or other inputs	411,210	1,553,668
3. Net excess of projected over actual earnings on pension plan investments (if any)	1,828,474	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$2,412,827	\$2,139,054
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,130,482	\$980,343
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	527,979
9. Difference between expected and actual experience in the Total Pension Liability	<u>303,784</u>	<u>454,492</u>
10. Total deferred inflows of resources	\$1,434,266	\$1,962,814

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

#### Reporting Date for Employer under GAS 68, Year Ended June 30:

2017	N/A	\$410,875
2018	-\$193,577	-238,503
2019	-100,767	-265,924
2020	757,162	269,792
2021	515,743	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – Russian River Cemetery District**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$17,548	\$17,487
2. Changes of assumptions or other inputs	24,243	79,015
3. Net excess of projected over actual earnings on pension plan investments (if any)	107,797	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$149,588	\$96,502
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$12,986	\$28,633
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	26,852
9. Difference between expected and actual experience in the Total Pension Liability	<u>17,909</u>	<u>23,114</u>
10. Total deferred inflows of resources	\$30,895	\$78,599

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68, Year Ended June 30:**

2017	N/A	\$23,842
2018	\$25,957	-6,135
2019	17,692	-13,524
2020	44,638	13,720
2021	30,406	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## **SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

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### **EXHIBIT 9 (continued)**

#### **Deferred Outflows of Resources and Deferred Inflows of Resources**

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There are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ended June 30, 2016. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through MCERA, which is 2.81 years determined as of June 30, 2015 (the beginning of the measurement period ending June 30, 2016).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2016 is recognized over the same period.

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 10****Schedule of Proportionate Share of the Net Pension Liability – Total for all Employers**

<b>Reporting date for employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll<sup>(1)</sup></b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	100.000%	\$127,264,462	\$53,254,876	239.0%	75.1%
2015	100.000%	142,120,436	53,813,882	264.1%	75.7%
2016	100.000%	166,164,493	54,891,785	302.7%	72.8%
2017	100.000%	205,719,528	57,407,928	358.3%	67.5%

<sup>(1)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.



**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 10 (continued)****Schedule of Proportionate Share of the Net Pension Liability – County of Mendocino**

<b>Reporting date for employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll<sup>(1)</sup></b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	92.782%	\$118,078,253	\$50,189,401	235.3%	75.1%
2015	91.968%	130,705,221	50,778,344	257.4%	75.6%
2016	93.236%	154,924,361	51,937,992	298.3%	72.7%
2017	93.864%	193,097,508	54,492,771	354.4%	67.4%

<sup>(1)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 10 (continued)****Schedule of Proportionate Share of the Net Pension Liability – Mendocino County Courts**

<b>Reporting date for employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll<sup>(1)</sup></b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	6.870%	\$8,742,627	\$2,848,026	307.0%	74.9%
2015	7.665%	10,894,043	2,815,226	387.0%	76.2%
2016	6.437%	10,696,155	2,758,836	387.7%	73.7%
2017	5.794%	11,919,321	2,702,997	441.0%	68.3%

<sup>(1)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – Russian River Cemetery District**

<b>Reporting date for employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll<sup>(1)</sup></b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	0.348%	\$443,582	\$217,449	204.0%	74.9%
2015	0.367%	521,172	220,312	236.6%	76.2%
2016	0.327%	543,977	194,957	279.0%	73.7%
2017	0.342%	702,699	212,160	331.2%	68.3%

<sup>(1)</sup> Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits are included.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 11**

**Schedule of Reconciliation of Net Pension Liability – Total for all Employers**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$166,164,493	\$142,120,436
2. Pension Expense	38,197,506	30,117,433
3. Employer Contributions	-19,129,191	-15,164,044
4. New Net Deferred Inflows/Outflows	31,640,272	15,921,248
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	-11,153,552	-6,830,580
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net Pension Liability	\$205,719,528	\$166,164,493

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – County of Mendocino**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$154,924,361	\$130,705,221
2. Pension Expense	36,539,869	28,418,017
3. Employer Contributions	-17,950,331	-14,139,041
4. New Net Deferred Inflows/Outflows	29,625,170	14,961,659
5. Change in Allocation of Prior Deferred Inflows/Outflows	58,984	2,219
6. New Net Deferred Flows Due to Change in Proportion	673,470	1,008,976
7. Recognition of Prior Deferred Inflows/Outflows	-10,647,219	-6,457,247
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-126,796</u>	<u>424,557</u>
9. Ending Net Pension Liability	\$193,097,508	\$154,924,361

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Mendocino County Courts**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$10,696,155	\$10,894,043
2. Pension Expense	1,534,075	1,614,367
3. Employer Contributions	-1,113,230	-975,397
4. New Net Deferred Inflows/Outflows	1,902,916	913,149
5. Change in Allocation of Prior Deferred Inflows/Outflows	-60,068	-2,156
6. New Net Deferred Flows Due to Change in Proportion	-685,845	-980,343
7. Recognition of Prior Deferred Inflows/Outflows	-478,145	-355,265
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>123,463</u>	<u>-412,243</u>
9. Ending Net Pension Liability	\$11,919,321	\$10,696,155

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Russian River Cemetery District**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2017</b>	<b>June 30, 2016</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$543,977	\$521,172
2. Pension Expense	123,562	85,049
3. Employer Contributions	-65,630	-49,606
4. New Net Deferred Inflows/Outflows	112,186	46,440
5. Change in Allocation of Prior Deferred Inflows/Outflows	1,084	-63
6. New Net Deferred Flows Due to Change in Proportion	12,375	-28,633
7. Recognition of Prior Deferred Inflows/Outflows	-28,188	-18,068
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>3,333</u>	<u>-12,314</u>
9. Ending Net Pension Liability	\$702,699	\$543,977

## SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association

### EXHIBIT 12

#### Schedule of Recognition of Changes in Total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability									
Reporting Date for Employer under GAS 68, Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2016	2017	2018	2019	2020	2021	Thereafter
2015	-\$8,040,343	3.42	-\$2,350,977	-\$2,350,977	-\$987,412	\$0	\$0	\$0	\$0
2016	1,787,516	2.83	631,631	631,631	524,254	0	0	0	0
2017	-3,396,702	2.81	N/A	-1,208,791	-1,208,791	-979,120	0	0	0
Net increase (decrease) in pension expense			-\$1,719,346	-\$2,928,137	-\$1,671,949	-\$979,120	\$0	\$0	\$0

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes									
Reporting Date for Employer under GAS 68, Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2016	2017	2018	2019	2020	2021	Thereafter
2015	\$58,186,913	3.42	\$17,013,717	\$17,013,717	\$7,145,762	\$0	\$0	\$0	\$0
2016	0	2.83	0	0	0	0	0	0	0
2017	0	2.81	N/A	0	0	0	0	0	0
Net increase (decrease) in pension expense			\$17,013,717	\$17,013,717	\$7,145,762	\$0	\$0	\$0	\$0

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with pensions through MCERA (active and inactive employees) determined as of June 30, 2015 (the beginning of the measurement period ending June 30, 2016) is 2.81 years.

Amortization amounts prior to June 30, 2016 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.



**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68, Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments						
			Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2016	2017	2018	2019	2020	2021	Thereafter
2015	-\$39,160,800	5.00	-\$7,832,160	-\$7,832,160	-\$7,832,160	-\$7,832,160	\$0	\$0	\$0
2016	18,456,704	5.00	3,691,341	3,691,341	3,691,341	3,691,341	3,691,340	0	0
2017	42,285,229	5.00	<u>N/A</u>	<u>8,457,046</u>	<u>8,457,046</u>	<u>8,457,046</u>	<u>8,457,046</u>	<u>8,457,045</u>	<u>0</u>
Net increase (decrease) in pension expense			-\$4,140,819	\$4,316,227	\$4,316,227	\$4,316,227	\$12,148,386	\$8,457,045	\$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

**Increase (Decrease) in Pension Expense**

Reporting Date for Employer under GAS 68, Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GAS 68, Year Ended June 30:							
		2016	2017	2018	2019	2020	2021	Thereafter	
2015	\$10,985,770	\$6,830,580	\$6,830,580	-\$1,673,810	-\$7,832,160	\$0	\$0	\$0	
2016	20,244,220	4,322,972	4,322,972	4,215,595	3,691,341	3,691,340	0	0	
2017	38,888,527	<u>N/A</u>	<u>7,248,255</u>	<u>7,248,255</u>	<u>7,477,926</u>	<u>8,457,046</u>	<u>8,457,045</u>	<u>0</u>	
Net increase (decrease) in pension expense		\$11,153,552	\$18,401,807	\$9,790,040	\$3,337,107	\$12,148,386	\$8,457,045	\$0	

Amortization amounts prior to June 30, 2016 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

**SECTION 2: GAS 68 Information for the Mendocino County Employees' Retirement Association****EXHIBIT 13****Allocation of Changes in Total Net Pension Liability**

In addition to the amounts shown in Exhibit 12, there are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ending on June 30, 2016. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on June 30, 2016 is recognized over the same periods. These amounts are shown below. While these amounts are different for each employer, they sum to zero over the entire Retirement Association.

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2017**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:				
			2017	2018	2019	2020	Thereafter
County of Mendocino	\$1,045,553	2.81	\$372,083	\$372,083	\$301,387	\$0	\$0
Mendocino County Courts	-1,064,765	2.81	-378,920	-378,920	-306,925	0	0
Russian River Cemetery District	<u>19,212</u>	2.81	<u>6,837</u>	<u>6,837</u>	<u>5,538</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association

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#### Actuarial Assumptions and Methods

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##### **Rationale for Assumptions:**

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2011 through June 30, 2014 Actuarial Experience Study dated October 7, 2014. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all membership groups (i.e., General, Safety, and Probation) and tiers. These assumptions were adopted by the Board.

##### **Economic Assumptions:**

##### **Net Investment Return:**

7.25% per annum, net of investment expense.

##### **Employee Contribution Crediting Rate:**

7.25% per annum.

##### **Consumer Price Index:**

Increase of 3.25% per year, retiree COLA increases due to CPI for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 subject to a 3% maximum change per year (no COLA increases for General Tier 4, Safety Tier 3, or Probation Tier 3).

##### **Salary Increases:**

##### **Annual Rate of Compensation Increase (%)**

Inflation: 3.25%; plus an additional 0.50% “across the board” salary increases (other than inflation); plus the following Merit and Promotional increases based on years of service.

<b>Years of Service</b>	<b>General</b>	<b>Safety and Probation</b>
0-1	5.00%	5.00%
1-2	3.75%	3.75%
2-3	3.50%	3.00%
3-4	2.75%	2.25%
4-5	2.25%	1.00%
5+	0.50%	0.50%

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association

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#### **Demographic Assumptions:**

##### **Post-Retirement Mortality Rates:**

*Healthy Members and  
All Beneficiaries:*

For all members and all beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

*Disabled Members:*

For all members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward four years for both males and females.

The above mortality tables contain a margin in excess of 10%, based on actual to expected deaths, as a provision to anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

*Employee Contribution Rates:*

For General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 30% male and 70% female.

For Safety and Probation members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 80% male and 20% female.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

**Termination Rates Before Retirement:**

Age	Rate (%)			
	Death			
	General <sup>(1)</sup>		Safety and Probation <sup>(2)</sup>	
	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.07	0.04	0.07	0.04
40	0.10	0.07	0.10	0.07
45	0.13	0.11	0.13	0.11
50	0.19	0.16	0.19	0.16
55	0.30	0.25	0.30	0.25
60	0.53	0.41	0.53	0.41
65	0.90	0.76	0.90	0.76

<sup>(1)</sup> 10% of General deaths are assumed to be service connected deaths. The other 90% are assumed to be non-service connected deaths.

<sup>(2)</sup> 50% of Safety and Probation deaths are assumed to be service connected deaths. The other 50% are assumed to be non-service connected deaths.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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**Termination Rates Before Retirement (continued):**

<b>Age</b>	<b>Rate (%)</b>		
	<b>Disability</b>		
	<b>General<sup>(1)</sup></b>	<b>Safety<sup>(2)</sup></b>	<b>Probation<sup>(2)</sup></b>
20	0.01	0.10	0.10
25	0.01	0.13	0.13
30	0.01	0.18	0.18
35	0.02	0.53	0.53
40	0.13	1.05	1.05
45	0.38	1.40	1.40
50	0.53	2.25	2.25
55	0.58	2.75	2.75
60	0.63	0.00	0.00

<sup>(1)</sup> 40% of General disabilities are assumed to be service connected disabilities. The other 60% are assumed to be non-service connected disabilities.

<sup>(2)</sup> 90% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 10% are assumed to be non-service connected disabilities.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

**Termination Rates Before Retirement (continued):**

Years of Service	Rate (%)		
	Termination (Less Than 5 Years of Service) <sup>(1)</sup>		
	General	Safety	Probation
0	18.00	13.50	13.50
1	16.00	11.50	11.50
2	14.00	9.50	9.50
3	12.00	7.50	7.50
4	10.00	5.50	5.50

Age	Rate (%)		
	Termination (5+ Years of Service) <sup>(2)</sup>		
	General	Safety	Probation
20	6.50	5.00	5.00
25	6.50	4.70	4.70
30	6.50	4.20	4.20
35	6.50	3.70	3.70
40	6.50	3.20	3.20
45	6.50	2.70	2.70
50	6.50	1.30	1.30
55	5.90	0.20	0.20
60	4.90	0.00	0.00

<sup>(1)</sup> 85% of all terminated members will choose a refund of contributions and 15% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

<sup>(2)</sup> 25% of all terminated members will choose a refund of contributions and 75% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

**Retirement Rates:**

<b>Age</b>	<b>Rate (%)</b>					
	<b>General Tiers 1, 2, &amp; 3</b>	<b>General Tier 4</b>	<b>Safety Tiers 1 &amp; 2</b>	<b>Safety Tier 3</b>	<b>Probation Tiers 1 &amp; 2</b>	<b>Probation Tier 3</b>
50	6.00	0.00	8.00	3.00	5.00	4.00
51	6.00	0.00	8.00	3.00	5.00	4.00
52	6.00	6.00	8.00	3.00	5.00	4.00
53	6.00	3.00	8.00	3.00	5.00	4.00
54	6.00	3.00	8.00	3.00	5.00	4.00
55	10.00	5.00	9.00	4.00	24.00	14.00
56	10.00	5.00	9.00	6.00	24.00	25.00
57	10.00	5.00	10.00	7.00	24.00	25.00
58	10.00	5.00	20.00	9.00	24.00	25.00
59	10.00	5.00	30.00	30.00	24.00	25.00
60	12.00	6.00	100.00	100.00	100.00	100.00
61	20.00	9.00	100.00	100.00	100.00	100.00
62	26.00	12.00	100.00	100.00	100.00	100.00
63	20.00	14.00	100.00	100.00	100.00	100.00
64	20.00	12.00	100.00	100.00	100.00	100.00
65	45.00	32.00	100.00	100.00	100.00	100.00
66	45.00	32.00	100.00	100.00	100.00	100.00
67	45.00	32.00	100.00	100.00	100.00	100.00
68	45.00	32.00	100.00	100.00	100.00	100.00
69	45.00	32.00	100.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00



### **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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

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

General Age:	60
Safety and Probation Age:	55

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

It is assumed that 60% of future deferred vested members will continue to work for a reciprocal employer. For reciprocals, 4.25% compensation increases per annum are assumed.

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**Future Benefit Accruals:**

1.0 year of service per year of employment plus 0.019 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.

**Unknown Data for Members:**

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

**Inclusion of Deferred Vested Members:**

All deferred vested members are included in the valuation.

**Percent Married:**

75% of male members; 50% of female members.

**Age of Spouse:**

Female (or male) spouses are 3 years younger (or older) than their spouse.

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**Actuarial Value of Assets:**

The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five year period. The actuarial value of assets cannot be less than 75% or greater than 125% of the market value of assets.

**Valuation Value of Assets:**

The Actuarial Value of Assets reduced by the value of the non-valuation reserves.

### **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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#### **Actuarial Cost Method:**

Entry Age Cost Method. Entry Age is the age at the member's hire date. The Normal Cost is calculated on an individual basis where the Entry Age Normal Cost for each membership tier is calculated as the sum of the individual Normal Costs for members in the membership tier. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation.

Prior to July 1, 2012, the total UAAL was being amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012 (and 23 years remaining as of June 30, 2016). On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.

#### **Expected Remaining Service Lives:**

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

**APPENDIX A**

**Calculation of Discount Rate as of June 30, 2016  
Projection of Pension Plan's Fiduciary Net Position (\$ in millions)**

Year Beginning July 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2015	\$444	\$25	\$31	\$1	-\$10	\$426
2016	426	24	35	1	30	445
2017	445	23	36	1	32	462
2018	462	23	38	1	33	479
2019	479	24	40	1	34	496
2020	496	25	42	1	35	513
2021	513	25	44	1	36	530
2022	530	25	46	1	37	545
2023	545	26	48	1	38	560
2024	560	26	50	1	39	574
2040	688	4 *	66	2	47	672
2041	672	4 *	66	2	46	654
2042	654	4 *	65	2	45	636
2043	636	4 *	65	2	44	617
2044	617	4 *	64	2	42	598
2089	697	2 *	1	2	51	747
2090	747	2 *	1	2	54	800
2091	800	2 *	1	2	58	858
2092	858	2 *	1	2	62	919
2093	919	2 *	1	2	67	985
2118	5,271	14 *	0 **	14	382	5,654
2119	5,654					
2119	Discounted Value: 4 ***					

\* Mainly attributable to employer contributions to fund each year's annual administrative expenses.

\*\* Less than \$1 million, when rounded.

\*\*\* \$5,654 million when discounted with interest at the rate of 7.25% per annum has a value of \$4 million (or 0.98% of the Plan's Fiduciary Net Position) as of June 30, 2016.

Note that in preparing the above projections, we have not taken into consideration the one-year delay between the date of the contribution rate calculation and the implementation.

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association

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#### APPENDIX A (continued)

##### Calculation of Discount Rate as of June 30, 2016 Projection of Pension Plan's Fiduciary Net Position (\$ in millions)

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Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown for the year beginning July 1, 2015 row are actual amounts, based on the unaudited financial statements provided by MCERA.
- (3) Years 2025-2039, 2045-2088, and 2094-2117 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2119, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- (5) Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2016); plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting an 18-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GAS Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2016. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2016 report. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.25% was applied to all periods of projected benefit payments to determine the discount rate.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.26% of the projected beginning Plan Fiduciary Net Position amount. The 0.26% portion was based on the actual fiscal year 2015 - 2016 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position amount as of July 1, 2015. Administrative expenses are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.
- (9) As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected 'cross-over date' when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2016 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

### **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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#### **APPENDIX B**

##### **Glossary of Terms**

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Definitions of certain terms *as they are used in Statement 68*; the terms may have different meanings in other contexts.

**Active employees**

Individuals employed at the end of the reporting or measurement period, as applicable.

**Actual contributions**

Cash contributions recognized as additions to a pension plan's fiduciary net position.

**Actuarial present value of projected benefit payments**

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

**Actuarial valuation**

The determination, as of a point in time (the actuarial valuation date), of the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

**Actuarial valuation date**

The date as of which an actuarial valuation is performed.

**Actuarially determined contribution**

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

**Ad hoc cost-of-living adjustments (ad hoc COLAs)**

**Cost-of-living adjustments** that require a decision to grant by the authority responsible for making such decisions.

### **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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#### **APPENDIX B (continued)**

##### **Glossary of Terms**

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##### **Ad hoc postemployment benefit changes**

**Postemployment benefit changes** that require a decision to grant by the authority responsible for making such decisions.

##### **Agent employer**

An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.

##### **Agent multiple-employer defined benefit pension plan (agent pension plan)**

A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.

##### **Allocated insurance contract**

A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.

##### **Automatic cost-of-living adjustments (automatic COLAs)**

Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

##### **Automatic postemployment benefit changes**

Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

##### **Closed period**

A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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**APPENDIX B (continued)**

**Glossary of Terms**

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**Collective deferred outflows of resources and deferred inflows of resources related to pensions**

Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective net pension liability.

**Collective net pension liability**

The net pension liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

**Collective pension expense**

Pension expense arising from certain changes in the collective net pension liability.

**Contributions**

Additions to a pension plan's fiduciary net position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.

**Cost-of-living adjustments**

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

**Cost-sharing employer**

An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.

**Cost-sharing multiple-employer defined benefit pension plan (cost-sharing pension plan)**

A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

**Covered-employee payroll**

The payroll of employees that are provided with pensions through the pension plan.

## **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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### **APPENDIX B (continued)**

#### **Glossary of Terms**

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##### **Deferred retirement option program (DROP)**

A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.

##### **Defined benefit pension plans**

Pension plans that are used to provide defined benefit pensions.

##### **Defined benefit pensions**

Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

##### **Defined contribution pension plans**

Pension plans that are used to provide defined contribution pensions.

##### **Defined contribution pensions**

Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.



### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association

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#### APPENDIX B (continued)

##### Glossary of Terms

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##### **Discount rate**

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's fiduciary net position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

##### **Entry age 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 or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normal cost*. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the *actuarial accrued liability*.

##### **Inactive employees**

Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.

##### **Measurement period**

The period between the prior and the current measurement dates.

##### **Multiple-employer defined benefit pension plan**

A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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**APPENDIX B (continued)**

**Glossary of Terms**

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**Net pension liability**

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

**Nonemployer contributing entities**

Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered nonemployer-contributing entities.

**Other postemployment benefits**

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

**Pension plans**

Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.

**Pensions**

Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

**Plan members**

Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).

**Postemployment**

The period after employment.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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**APPENDIX B (continued)**

**Glossary of Terms**

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**Postemployment benefit changes**

Adjustments to the pension of an inactive employee.

**Postemployment healthcare benefits**

Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.

**Projected benefit payments**

All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

**Public employee retirement association**

A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.

**Real rate of return**

The rate of return on an investment after adjustment to eliminate inflation.

**Service costs**

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

**Single employer**

An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.

**Single-employer defined benefit pension plan (single-employer pension plan)**

A defined benefit pension plan that is used to provide pensions to employees of only one employer.

## **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Mendocino County Employees' Retirement Association**

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### **APPENDIX B (continued)**

#### **Glossary of Terms**

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##### **Special funding situations**

Circumstances in which a nonemployer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:

1. The amount of contributions for which the nonemployer entity legally is responsible is *not* dependent upon one or more events or circumstances unrelated to the pensions.
2. The nonemployer entity is the only entity with a legal obligation to make contributions directly to a pension plan.

##### **Termination benefits**

Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.

##### **Total pension liability**

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.

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