



## **Ventura County Employees' Retirement Association**

**Governmental Accounting Standards (GAS) 67  
Actuarial Valuation as of June 30, 2018**

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

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*October 11, 2018*

*Board of Retirement  
Ventura County Employees' Retirement Association  
1190 S. Victoria Avenue, Suite 200  
Ventura, CA 93003-6572*

*Dear Board Members:*

*We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2018. It contains various information that will need to be disclosed in order to comply with GAS 67.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist VCERA in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based was prepared by VCERA. 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.*


*The actuarial calculations were completed under the supervision of John Monroe, 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 Plan.*

*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:   
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Senior Vice President and Actuary*

  
\_\_\_\_\_  
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*AW/bqb*

## SECTION 1

### VALUATION SUMMARY

Purpose .....	i
General Observations on GAS 67 Actuarial Valuation.....	i
Significant Issues in Valuation Year.....	ii
Summary of Key Valuation Results .....	iii
Important Information about Actuarial Valuations.....	iv

## SECTION 2

### GAS 67 INFORMATION

EXHIBIT 1 General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing Pension Plan.....	1
EXHIBIT 2 Net Pension Liability .....	5
EXHIBIT 3 Schedules of Changes in Net Pension Liability – Last Two Fiscal Years .....	9
EXHIBIT 4 Schedule of Employer Contributions – Last Ten Fiscal Years.....	10
EXHIBIT 5 Projection of the Plan’s Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2018.....	12

## SECTION 3

### AICPA SCHEDULES

EXHIBIT A Schedule of Employer Allocations as of June 30, 2018 .....	14
EXHIBIT B Schedule of Pension Amounts by Employer as of June 30, 2018 .....	15

## **SECTION 1: Valuation Summary for the Ventura 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) 67 as of June 30, 2018. This valuation is based on:

- The benefit provisions of VCERA, as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2017, provided by VCERA;
- The assets of the Plan as of June 30, 2018, provided by VCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2018 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2018 valuation.

### **General Observations on GAS 67 Actuarial Valuation**

The following points should be considered when reviewing this GAS 67 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 actual pension funding purposes. Employers and plans still develop and adopt funding policies under current practices.
- When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as VCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on generally the same basis as VCERA'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 TPL and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Medical (\$27.50) Reserve. The TPL only includes a liability up to the amount in the Supplemental Medical (\$27.50) Reserve. This is because we understand that the Supplemental Medical (\$27.50) benefit is a nonvested benefit and once the reserve is depleted no further benefits would need to be paid.

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

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- 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 very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.
- For this report, the reporting dates for the Plan are June 30, 2018 and 2017. The NPL was measured as of June 30, 2018 and 2017, respectively, and determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2017 and 2016. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.

### Significant Issues in Valuation Year

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

- The NPL increased slightly from \$713 million as of June 30, 2017 to \$725 million as of June 30, 2018 primarily due to the changes in actuarial assumptions that increased the TPL by \$129 million. This increase in the TPL was substantially offset by the 8.83% return on the market value of assets during 2017/2018 (that was more than the assumed return of 7.50%). Changes in these values during the last two fiscal years ending June 30, 2017 and June 30, 2018 can be found in Exhibit 3.
- The discount rate originally used to determine the TPL and NPL as of June 30, 2018 was 7.50%, following the same assumption used by VCERA in the pension funding valuation as of June 30, 2017. However, as the Board has approved a new discount rate of 7.25% (together with other new actuarial assumptions) for use in the pension funding valuation as of June 30, 2018, we have included the impact of this assumption change by (1) revaluing the actuarial valuation TPL as of June 30, 2017 (before the roll forward) and (2) using this revalued TPL in rolling forward the results from June 30, 2017 to June 30, 2018. The detailed derivation of the discount rate of 7.25% used in calculation of the TPL and NPL as of June 30, 2018 can be found in Exhibit 5 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 4 in Section 2.
- Section 3 contains two schedules that the American Institute of Certified Public Accountants (AICPA) recommends be prepared by cost sharing pension plans. These two schedules contain summary information related to GAS 68 and are based on many of the results that will be shown in a separate GAS 68 report. The first schedule shows the method used for allocating the NPL along with the NPL amounts allocated amongst all of the employers in VCERA. The second schedule is a summary that shows the allocated NPL, deferred outflows and inflows of resources and pension expense by employer. Further information regarding GAS 68 including additional information that employers will need to disclose will be provided in a separate report that is anticipated to be completed during the first quarter of 2019.

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

**Summary of Key Valuation Results**

	2018	2017
<b>Disclosure elements for fiscal year ending June 30:</b>		
Service cost <sup>(1)</sup>	\$138,876,553	\$132,489,883
Total Pension Liability	6,121,952,634	5,677,421,117
Plan's Fiduciary Net Position	5,396,462,523	4,964,246,776
Net Pension Liability	725,490,111	713,174,341
<b>Schedule of contributions for fiscal year ending June 30:</b>		
Actuarially determined contributions <sup>(2)</sup>	\$197,638,153	\$190,711,815
Actual employer contributions	197,638,153	190,711,815
Contribution deficiency (excess)	0	0
<b>Demographic data for plan year ending June 30:<sup>(3)</sup></b>		
Number of retired members and beneficiaries	7,038	6,766
Number of vested terminated members <sup>(4)</sup>	2,909	2,809
Number of active members	8,611	8,636
<b>Key assumptions:</b>		
Investment rate of return	7.25%	7.50%
Inflation rate	2.75%	3.00%
Projected salary increases <sup>(5)</sup>	3.75% - 11.75%, varying by service, including inflation	4.00% - 11.50%, varying by service, including inflation

<sup>(1)</sup> The service cost is based on the previous year's valuation, meaning the 2018 and 2017 values are based on the valuations as of June 30, 2017 and June 30, 2016, respectively. Both of the service costs have been calculated using the assumptions shown in the 2017 column as there were no changes in the actuarial assumptions between the June 30, 2017 and June 30, 2016 valuations.

<sup>(2)</sup> Actuarially Determined Contributions exclude employer paid member contributions.

<sup>(3)</sup> Data as of June 30, 2017 is used in the measurement of the TPL as of June 30, 2018.

<sup>(4)</sup> Includes terminated members with member contributions on deposit.

<sup>(5)</sup> Includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and longevity increases that vary by service for June 30, 2018 and inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and longevity increases that vary by service for June 30, 2017.

## SECTION 1: Valuation Summary for the Ventura 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 Consulting (“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. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan provisions.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by VCERA. 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 VCERA.
- **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, withdrawal, 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 valuation is prepared at the request of the Board to assist VCERA 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 Ventura 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 VCERA 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 Consulting has no discretionary authority with respect to the management or assets of VCERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to VCERA.



**SECTION 2: GAS 67 Information for Ventura 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 Ventura County Employees' Retirement Association (VCERA) was established by the County of Ventura in 1947. VCERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et seq.) and the California Public Employees' Pension Reform Act of 2013 or "PEPRA" (California Government Code Section 7522 et seq.). VCERA 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 safety and general members employed by the County of Ventura. VCERA also provides retirement benefits to the employee members of the Ventura County Courts, Air Pollution Control District, the Ventura Regional Sanitation District and VCERA.

The management of VCERA is vested with the VCERA Board of Retirement. The Board consists of nine members and three alternates. The County Treasurer is elected by the general public and a member of the Board of Retirement by law. Four members and one alternate, one of whom may be a County Supervisor, are appointed by the Board of Supervisors. Two members are elected by the general membership; one member and one alternate are elected by the safety membership, one member and one alternate are 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 his term as County Treasurer.

*Plan membership.* At June 30, 2018, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	7,038
Vested terminated members entitled to but not yet receiving benefits <sup>(1)</sup>	2,909
Active members	<u>8,611</u>
Total	18,558

<sup>(1)</sup> Includes terminated members with member contributions on deposit.

Note: Data as of June 30, 2018 is not used in the measurement of the TPL as of June 30, 2018.

*Benefits provided.* VCERA provides service retirement, disability, death and survivor benefits to eligible employees. All permanent employees of the County of Ventura or contracting district who work a regular schedule of 64 or more hours per bi-weekly pay period become members of VCERA upon appointment. There are separate retirement plans for safety and general

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

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member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and probation. The table below indicates all existing VCERA membership tiers:

<u>Membership Tier</u>	<u>Retirement Eligibility</u>
Tier 1 - General Legacy Members hired before January 1, 2013	Age 50 and 10 or more years of service credit, or 30 years or more of service credit, regardless of age. Age 70, regardless of service.
Tier 1 - Safety Legacy Members hired before January 1, 2013	Age 50 and 10 or more years of service credit, or 20 years or more of service credit, regardless of age. Age 70, regardless of service.
Tier 2 - General Legacy Members hired before January 1, 2013	Age 50 and 10 or more years of service credit, or 30 years or more of service credit, regardless of age. Age 70, regardless of service.
Tier 2 COLA - General Legacy Members hired before January 1, 2013	Age 50 and 10 or more years of service credit, or 30 years or more of service credit, regardless of age. Age 70, regardless of service.
Tier 5 - General PEPRA Members hired on or after January 1, 2013	Age 52 and five years of service credit. Age 70, regardless of service credit.
Tier 6 - General PEPRA Members hired on or after January 1, 2013	Age 52 and five years of service credit. Age 70, regardless of service credit.
Tier 7 - Safety PEPRA Members hired on or after January 1, 2013	Age 50 and five years of service credit. Age 70, regardless of service credit.
Tier 8 COLA - General PEPRA Members hired on or after January 1, 2013	Age 52 and five years of service credit. Age 70, regardless of service credit.

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.

## SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association

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General member benefits for Tier 1 and Tier 2 are calculated pursuant to the provisions of sections 31676.11 and 31676.1, respectively. The monthly allowance is equal to 1/90th of the first \$350 of final compensation, plus 1/60th of the excess final compensation times years of accrued retirement service credit times age factor from either section 31676.11 (Tier 1) or 31676.1 (Tier 2). General member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provisions of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation 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 California Government Code Section 31664. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times age factor from Section 31664. For those Safety members first hired on or after January 1, 2013, benefits are calculated pursuant to the provisions 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).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no 100% of final average compensation limit on the maximum monthly retirement allowance benefit for members with membership dates on or after January 1, 2013. However, the maximum amount of compensation earnable that can be considered for purposes of retirement contributions and benefit calculations for 2018 for members hired on or after July 1, 1996 but before January 1, 2013 is \$275,000. For members hired on or after January 1, 2013 who are enrolled in Social Security, the maximum amount of pensionable compensation that can be considered for purposes of retirement contributions and benefit calculations for 2018 is \$121,388 (\$145,666 for those not enrolled in Social Security). These limits are adjusted on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap<sup>1</sup>.

Final average compensation consists of the highest 12 consecutive months for Legacy Safety and Tier 1 General members. The final average compensation consists of the highest 36 consecutive months for all other tiers.

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. An eligible surviving spouse is one married to the member one year prior to the effective retirement date or at least two years prior to the date of death and has attained age 55 on or prior to the date of death. There are four optional retirement allowances the member may choose. 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 or named beneficiary having an insurable interest in the life of the member.

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<sup>1</sup> *Members and employers do not pay contributions on compensation in excess of the pensionable compensation caps.*

## SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association

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VCERA provides an annual cost-of-living adjustment (COLA) benefit to Safety and Tier 1 General member retirees. The COLA, based upon the Consumer Price Index for the Los Angeles, Riverside, Orange County area, is capped at 3.0%. Certain Tier 2 and all Tier 8 General member retirees receive a fixed 2% COLA pursuant to collective bargaining agreements.

The employers 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 VCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2018 for 2017/2018 (based on the June 30, 2016 valuation) was 27.52% of compensation.

Members are required to make contributions to VCERA up to the requisite limits, regardless of the retirement plan or tier<sup>2</sup>. The average member contribution rate as of June 30, 2018 for 2017/2018 (based on the June 30, 2016 valuation) was 9.80% of compensation.

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<sup>2</sup> *Safety Legacy members with 30 or more years of service are exempt from paying member contributions. The same applies for General Legacy members hired on or before March 7, 1973.*

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**EXHIBIT 2**

**Net Pension Liability**

The components of the Net Pension Liability are as follows:

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
Total Pension Liability	\$6,121,952,634	\$5,677,421,117
Plan's Fiduciary Net Position	<u>(5,396,462,523)</u>	<u>(4,964,246,776)</u>
Net Pension Liability	\$725,490,111	\$713,174,341
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	88.15%	87.44%

The Net Pension Liability (NPL) was measured as of June 30, 2018 and 2017. 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 rolling forward the TPL from actuarial valuations as of June 30, 2017 and 2016, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL are the same as those used in the VCERA actuarial valuations as of June 30, 2018 and 2017. The TPL and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Medical (\$27.50) Reserve.

*Actuarial assumptions and methods.* The TPL as of June 30, 2018 was remeasured by (1) revaluing the TPL as of June 30, 2017 (before the roll forward) to include the following actuarial assumptions that the Retirement Board has adopted for use in the pension funding valuation as of June 30, 2018 and (2) using this revalued TPL in rolling forward the results from June 30, 2017 to June 30, 2018. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2018 measurement:

Inflation	2.75%
Salary increases	3.75% to 11.75%, varying by service, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in June 30, 2018 funding valuation

The TPL as of June 30, 2017 was measured as of June 30, 2016 using the same actuarial assumptions in the pension funding valuation as of June 30, 2017 and rolled forward the results from June 30, 2016 to June 30, 2017. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2017 measurement:

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

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Inflation	3.00%
Salary increases	4.00% to 11.50%, varying by service, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in June 30, 2017 funding valuation

The Entry Age Actuarial Cost Method used in VCERA's annual actuarial valuation has also been applied in measuring the service cost and TPL with one exception. For purposes of measuring the service cost and TPL, we have reflected the same plan provisions used in determining the member's Actuarial Present Value of Projected Benefits. This is different from the version of this method applied in VCERA's annual funding valuation, where the Normal Cost and Actuarial Accrued Liability are determined as if the current benefit accrual rate had always been in effect.

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 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, 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 as of June 30, 2018 and 2017 are summarized in the following tables. This information will change every three years based on the actuarial experience study.

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**June 30, 2018**

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Arithmetic Real Rate of Return</b>
Large Cap U.S. Equity	27.04%	5.32%
Small Cap U.S. Equity	4.48%	6.07%
Developed International Equity	17.32%	6.68%
Emerging Market Equity	4.16%	8.87%
Core Bonds	9.00%	1.04%
Real Estate	8.00%	4.65%
Master Limited Partnerships	4.00%	6.31%
Absolute Return (Fixed Income)	7.00%	1.71%
Private Debt/Credit Strategies	3.00%	5.50%
Absolute Return (Risk Parity)	6.00%	4.63%
Private Equity	<u>10.00%</u>	8.97%
<b>Total</b>	<b>100.00%</b>	

**June 30, 2017**

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Arithmetic Real Rate of Return</b>
Large Cap U.S. Equity	27.74%	5.90%
Small Cap U.S. Equity	3.41%	6.60%
Developed International Equity	14.73%	6.95%
Emerging Market Equity	3.12%	8.44%
U.S. Core Fixed Income	14.00%	0.71%
Real Estate	7.00%	4.65%
Private Debt/Credit Strategies	5.00%	6.01%
Absolute Return (Risk Parity)	16.00%	4.13%
Master Limited Partnerships	4.00%	6.51%
Private Equity	<u>5.00%</u>	9.25%
<b>Total</b>	<b>100.00%</b>	

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

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*Discount rate:* The discount rates used to measure the TPL were 7.25% and 7.50% as of June 30, 2018 and June 30, 2017, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only 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 for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the 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, 2018 and June 30, 2017.

*Sensitivity of the June 30, 2018 Net Pension Liability to changes in the discount rate.* The following presents the NPL of the VCERA as of June 30, 2018, calculated using the discount rate of 7.25%, as well as what the VCERA'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:

	<b>1% Decrease (6.25%)</b>	<b>Current Discount Rate (7.25%)</b>	<b>1% Increase (8.25%)</b>
Net Pension Liability as of June 30, 2018	\$1,564,365,424	\$725,490,111	\$34,036,267



**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**EXHIBIT 3**

**Schedules of Changes in Net Pension Liability – Last Two Fiscal Years**

	<b>2018</b>	<b>2017</b>
<b>Total Pension Liability</b>		
1. Service cost	\$138,876,553	\$132,489,883
2. Interest	427,800,170	405,194,906
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	26,563,801	(51,057,518)
5. Changes of assumptions	129,009,389	0
6. Benefit payments, including refunds of member contributions	<u>(277,718,396)</u>	<u>(260,745,073)</u>
7. Net change in Total Pension Liability	\$444,531,517	\$225,882,198
8. Total Pension Liability – beginning	<u>5,677,421,117</u>	<u>5,451,538,919</u>
9. Total Pension Liability – ending	<u>\$6,121,952,634</u>	<u>\$5,677,421,117</u>
<b>Plan's Fiduciary Net Position</b>		
10. Contributions – employer <sup>(1)</sup>	\$197,638,153	\$190,711,815
11. Contributions – employee <sup>(1)</sup>	74,088,950	72,441,728
12. Net investment income	445,902,067	580,525,970
13. Benefit payments, including refunds of member contributions	(277,718,396)	(260,745,073)
14. Administrative expense	(4,881,405)	(5,524,373)
15. Other expense	<u>(2,813,622)</u>	<u>0</u>
16. Net change in Plan's Fiduciary Net Position	\$432,215,747	\$577,410,067
17. Plan's Fiduciary Net Position – beginning	<u>4,964,246,776</u>	<u>4,386,836,709</u>
18. Plan's Fiduciary Net Position – ending	\$5,396,462,523	\$4,964,246,776
19. Net Pension Liability – ending (9) – (18)	<u>\$725,490,111</u>	<u>\$713,174,341</u>
20. Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	88.15%	87.44%
21. Covered payroll <sup>(2)</sup>	\$736,994,000	\$716,033,000
22. Plan's Net Pension Liability as percentage of covered payroll	98.44%	99.60%

<sup>(1)</sup> See footnote (2) under Exhibit 4 on page 10.

<sup>(2)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

**Notes to Schedule:**

Benefit changes: None

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**EXHIBIT 4**

**Schedule of Employer Contributions – Last Ten Fiscal Years**

<b>Year Ended June 30</b>	<b>Actuarially Determined Contributions<sup>(1)(2)</sup></b>	<b>Contributions in Relation to the Actuarially Determined Contributions<sup>(2)</sup></b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll<sup>(3)</sup></b>	<b>Contributions as a Percentage of Covered Payroll</b>
2009	\$105,278,000	\$105,278,000	\$0	\$599,173,000	17.57%
2010	97,324,000	97,324,000	0	634,777,000	15.33%
2011	111,585,000	111,585,000	0	654,829,000	17.04%
2012	132,386,000	132,386,000	0	637,037,000	20.78%
2013	142,370,000	142,370,000	0	632,146,000	22.52%
2014	161,247,000	161,247,000	0	642,779,000	25.09%
2015	173,269,000	173,269,000	0	665,086,000	26.05%
2016	177,830,000	177,830,000	0	688,233,000	25.84%
2017	190,712,000	190,712,000	0	716,033,000	26.63%
2018	197,638,000	197,638,000	0	736,994,000	26.82%

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

<sup>(1)</sup> All "Actuarially Determined Contributions" through June 30, 2014 were determined as the "Annual Required Contribution" under GAS 25 and 27.

<sup>(2)</sup> Actuarially Determined Contributions exclude employer paid member contributions.

<sup>(3)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**Notes to Exhibit 4**

**Methods and assumptions used to establish “actuarially determined contribution” 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 Actuarial Cost Method
<b>Amortization method</b>	Level percent of payroll
<b>Remaining amortization period</b>	15 years for UAAL as of June 30, 2004. Any changes in UAAL after June 30, 2004 are separately amortized over a 15-year closed period effective with that valuation. Effective June 30, 2012, any changes in UAAL due to actuarial gains or losses or due to plan amendments (with the exception of a change due to retirement incentives) will be amortized over a 15-year closed period effective with that valuation (up to a 5-year closed period for retirement incentives). Any change in UAAL due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with that valuation.
<b>Asset valuation method</b>	Market value of assets less unrecognized returns in each of the last ten semi-annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on market value and are recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the supplemental medical benefit reserve and statutory contingency reserve.

**Actuarial assumptions:**

	<u>June 30, 2018 Valuation Date</u>	<u>June 30, 2017 Valuation Date</u>
Investment rate of return	7.25%, net of pension plan administration and investment expenses, including inflation	7.50%, net of pension plan administration and investment expenses, including inflation
Inflation rate	2.75%	3.00%
Real across-the-board salary increase	0.50%	0.50%
Projected salary increases <sup>(1)</sup>	General: 3.75% to 10.25% and Safety: 3.95% to 11.75%	General: 4.00% to 9.50% and Safety: 4.00% to 11.50%
Cost of living adjustments	Increase of 2.75% per year; retiree COLA increases due to CPI are subject to a 3.00% maximum change per year for both PEPRA and Non-PEPRA General Tier 1 and both PEPRA and Non-PEPRA Safety. For both PEPRA and non-PEPRA General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment, not subject to changes in the CPI, that applies to future service after March 2003.	Increase of 3.00% per year; retiree COLA increases due to CPI are subject to a 3.00% maximum change per year for both PEPRA and Non-PEPRA General Tier 1 and both PEPRA and Non-PEPRA Safety. For both PEPRA and non-PEPRA General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment, not subject to changes in the CPI, that applies to future service after March 2003.
Other assumptions	Same as those used in the June 30, 2018 funding actuarial valuation	Same as those used in the June 30, 2017 funding actuarial valuation

<sup>(1)</sup> Includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and longevity increases that vary by service for June 30, 2018 and inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and longevity increases that vary by service for June 30, 2017.

**SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association**

**EXHIBIT 5**

**Projection of the Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2018  
(\$ in millions)**

Year Beginning July 1	Projected Beginning Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2017	\$4,964	\$272	\$278	\$8	\$446	\$5,396
2018	5,396	273	304	8	390	5,747
2019	5,747	227	321	9	413	6,057
2020	6,057	219	339	9	435	6,362
2021	6,362	194	358	10	455	6,643
2022	6,643	204	377	10	475	6,934
2023	6,934	214	397	11	496	7,236
2024	7,236	170	418	11	515	7,493
2025	7,493	138	438	12	532	7,712
2026	7,712	130	458	12	547	7,919
2042	9,580	53	747	15	669	9,542
2043	9,542	50	761	15	666	9,481
2044	9,481	46	774	15	661	9,401
2045	9,401	43	784	15	655	9,300
2046	9,300	41	793	14	647	9,179
2091	275	3	66	0 *	18	230
2092	230	3	55	0 *	15	192
2093	192	3	44	0 *	12	163
2094	163	2	36	0 *	11	139
2095	139	2	28	0 *	9	122
2129	573	1	0 *	1	42	614
2130	614					
2130 Discounted Value:		0 **				

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

\*\* \$614 million when discounted with interest at the rate of 7.25% per annum has a value of less than \$1 million as of June 30, 2017.

## SECTION 2: GAS 67 Information for Ventura County Employees' Retirement Association

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### EXHIBIT 5

#### Projection of the Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2018 (\$ in millions) – continued

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Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning July 1, 2017 row are actual amounts, based on the unaudited financial statements provided by VCERA.
- (3) Years 2027-2041, 2047-2090, and 2096-2128 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2130, none of the projected beginning Plan's 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 rates applied to closed group projected payroll (based on covered active members as of June 30, 2017), plus employer contributions to the unfunded actuarial accrued liability. 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 GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2017. The projected benefit payments reflect the cost of living increase assumptions used in June 30, 2018 valuation report and include projected benefits associated with the Supplemental Medical (\$27.50) Reserve.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.16% of the projected beginning Plan's Fiduciary Net Position amount. The 0.16% portion was based on the actual fiscal year 2017/2018 administrative and other expenses (unaudited) as a percentage of the actual beginning Plan's Fiduciary Net Position as of July 1, 2017. 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, 2018 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

**SECTION 3: AICPA Schedules for Ventura County Employees' Retirement Association**

**EXHIBIT A**

**Schedule of Employer Allocations as of June 30, 2018**

**July 1, 2017 to June 30, 2018  
Actual Compensation by Employer and Tier**

<u>Employer ID</u>	<u>Employer</u>	<u>General Tier 1 and 2</u>	<u>General Tier 1 and 2 %</u>	<u>Safety Tier</u>	<u>Safety Tier %</u>	<u>Total Compensation</u>	<u>Total %</u>
01	County of Ventura	\$519,680,162	92.922%	\$177,732,133	100.000%	\$697,412,296	94.629%
10	Ventura County Courts	\$29,790,290	5.327%	\$0	0.000%	\$29,790,290	4.042%
11	Ventura County Air Pollution Control District	\$4,480,758	0.801%	\$0	0.000%	\$4,480,758	0.608%
22	Ventura Regional Sanitation District	\$5,310,826	0.950%	\$0	0.000%	\$5,310,826	0.721%
	Total	\$559,262,037	100.000%	\$177,732,133	100.000%	\$736,994,170	100.000%

**Allocation of June 30, 2018 Net Pension Liability (NPL)**

<u>Employer ID</u>	<u>Employer</u>	<u>General Tier 1 and 2</u>	<u>General Tier 1 and 2 %</u>	<u>Safety Tier</u>	<u>Safety Tier %</u>	<u>Total NPL</u>	<u>Employer Allocation Percentage</u>
01	County of Ventura	\$359,979,537	92.922%	\$338,092,432	100.000%	\$698,071,969	96.221%
10	Ventura County Courts	20,635,567	5.327%	0	0.000%	20,635,567	2.844%
11	Ventura County Air Pollution Control District	3,103,796	0.801%	0	0.000%	3,103,796	0.428%
22	Ventura Regional Sanitation District	3,678,779	0.950%	0	0.000%	3,678,779	0.507%
	Total	\$387,397,679	100.000%	\$338,092,432	100.000%	\$725,490,111	100.000%

**Notes:**

Actual July 1, 2017 through June 30, 2018 compensation information was provided by VCERA. Results may not total due to rounding.

The Net Pension Liability (NPL) for each tier is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position. The TPL for each tier is obtained from internal valuation results based on the actual participants in each tier. The Plan's Fiduciary Net Position for each tier was determined by adjusting each tier's internally tracked valuation value of assets (which is used to determine employer contribution rates by tier) by the ratio of the total VCERA Plan's Fiduciary Net Position to total VCERA valuation value of assets. Based on this methodology, any non-valuation reserves (such as the \$27.50 Supplemental Medical Benefit) are allocated amongst the tiers based on each tier's valuation value of assets.

The Safety Tier only has one employer (County of Ventura), so all of the NPL for that tier is allocated to the County.

For the two other tiers that have multiple employers, the NPL is allocated based on the actual compensation for each employer in the tier during the period ending on the measurement date within the tier.

- Calculate ratio of employer's compensation to the total compensation for the tier.
- This ratio is multiplied by the NPL for the tier to determine the employer's proportionate share of the NPL for the tier.
- If the employer is in several tiers, the employer's total allocated NPL is the sum of its allocated NPL from each tier.
- Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.
- In this allocation, General Tier 1 and 2 were treated as one tier (combined) consistent with the determination of the Basic UAAL rate in the actuarial valuation.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2019. The reporting date and measurement date for the plan under GAS 67 are assumed to be June 30, 2018. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2018 are not adjusted or "rolled forward" to June 30, 2019 for employer reporting under GAS 68. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

**SECTION 3: AICPA Schedules for Ventura County Employees' Retirement Association**

**EXHIBIT B**

**Schedule of Pension Amounts by Employer as of June 30, 2018**

	County of Ventura	Ventura County Courts	Ventura County Air Pollution Control District	Ventura Regional Sanitation District	Total for All Employers
<b>Deferred Outflows of Resources</b>					
Differences Between Expected and Actual Experience	\$20,895,674	\$617,693	\$92,907	\$110,118	\$21,716,392
Net Excess of Projected Over Actual Earnings on Pension Plan Investments (If Any)	0	0	0	0	0
Changes of Assumptions	153,628,012	4,541,367	683,067	809,606	159,662,052
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>1,274,565</u>	<u>2,202,391</u>	<u>280,120</u>	<u>718,897</u>	<u>4,475,973</u>
<b>Total Deferred Outflows of Resources</b>	\$175,798,251	\$7,361,451	\$1,056,094	\$1,638,621	\$185,854,417
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$73,873,287	\$2,183,754	\$328,458	\$389,306	\$76,774,805
Net Excess of Actual Over Projected Earnings on Pension Plan Investments (If Any)	39,574,258	1,169,847	175,957	208,553	41,128,615
Changes of Assumptions	0	0	0	0	0
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>2,987,978</u>	<u>1,096,447</u>	<u>51,797</u>	<u>339,751</u>	<u>4,475,973</u>
<b>Total Deferred Inflows of Resources</b>	\$116,435,523	\$4,450,048	\$556,212	\$937,610	\$122,379,393
<b>Net Pension Liability as of June 30, 2017</b>	\$690,194,000	\$17,304,192	\$2,817,898	\$2,858,251	\$713,174,341
<b>Net Pension Liability as of June 30, 2018</b>	\$698,071,969	\$20,635,567	\$3,103,796	\$3,678,779	\$725,490,111
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense	\$120,394,243	\$3,558,950	\$535,301	\$634,467	\$125,122,961
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>(257,772)</u>	<u>75,572</u>	<u>74,979</u>	<u>107,221</u>	<u>0</u>
<b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	\$120,136,471	\$3,634,522	\$610,280	\$741,688	\$125,122,961

### SECTION 3: AICPA Schedules for Ventura County Employees' Retirement Association

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#### EXHIBIT B

#### Schedule of Pension Amounts by Employer as of June 30, 2018 – continued

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**Notes:**

Amounts shown in this exhibit, excluding the differences between employer contributions and proportionate share of contributions, were allocated by employer based on the Employer Allocation Percentage calculated in Exhibit A.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Differences between expected and actual experience and between employer contributions and proportionate share of contributions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through VCERA determined as of June 30, 2017 (the beginning of the measurement period ending June 30, 2018) and is 5.48 years.

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

- Calculating each active employees' 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 members.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.