



GASB 68 ACCOUNTING VALUATION REPORT

**(CalPERS ID: 7607918484)
Rate Plan Identifier: 48**

**Prepared for
COUNTY OF BUTTE
SAFETY PLAN,
an Agent Multiple-Employer Defined
Benefit Pension Plan**

Measurement Date of June 30, 2017

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Actuarial Certification

This report provides disclosure and reporting information as required under Governmental Accounting Standards Board Statement 68 (GASB 68) for the SAFETY PLAN of the COUNTY OF BUTTE (the "Plan"), an Agent Multiple-Employer Defined Benefit Pension Plan participating in the California Public Employees' Retirement System (CalPERS), for the measurement period ended June 30, 2017.

This report is to be viewed solely for the purpose of financial accounting requirements. Any usage of the contents provided in this report for purposes other than financial accounting requirements would be inappropriate.

This accounting valuation report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2016 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2016 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2016 liabilities, which were rolled forward to June 30, 2017 and used for this accounting valuation, are based on actuarial assumptions adopted by the CalPERS Board of Administration and consistent with the requirements of GASB 68. The assumptions and methods are internally consistent and reasonable for this Plan.

With the provided liability and asset information, the total pension liability, net pension liability, deferred inflows and outflows and pension expense were developed for the measurement period using standard actuarial techniques.

The undersigned is an actuary for CalPERS, who is a member of the American Academy of Actuaries and the Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



STUART BENNETT, ASA, MAAA
Senior Pension Actuary, CalPERS
CalPERS Actuarial Office

Introduction

This is the GASB 68 Accounting Valuation Report for the measurement date June 30, 2017. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 Accounting Valuation Reports are in a separate document, which may be accessed on the CalPERS website at www.calpers.ca.gov.

GASB 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

Valuation Date	June 30, 2016
Measurement Date	June 30, 2017
Measurement Period	June 30, 2016 to June 30, 2017

Pension Plan Fiduciary Net Position

The plan fiduciary net position disclosed in your GASB 68 accounting valuation report may differ from the plan assets reported in your funding actuarial valuation report due to several reasons. For example, for the accounting valuations, CalPERS must keep items such as deficiency reserves and fiduciary self-insurance included as assets. These amounts are excluded for rate setting purposes in your funding actuarial valuation.

Changes in the Net Pension Liability

The following table shows the changes in net pension liability recognized over the measurement period.

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability/(Asset) (c) = (a) – (b)
Balance at: 06/30/2016	\$174,519,608	\$125,908,900	\$48,610,708
Changes Recognized for the Measurement Period:			
Service Cost	\$5,591,795		\$5,591,795
Interest on Total Pension Liability	13,280,416		13,280,416
Changes of Benefit Terms	0		0
Changes of Assumptions	11,868,431		11,868,431
Differences between Expected and Actual Experience	143,288		143,288
Net Plan to Plan Resource Movement		\$(12,085)	12,085
Contributions – Employer		5,787,085	(5,787,085)
Contributions – Employees		2,035,009	(2,035,009)
Net Investment Income		13,995,959	(13,995,959)
Benefit Payments, including Refunds of Employee Contributions	(7,174,299)	(7,174,299)	0
Administrative Expense		(185,896)	185,896
Other Miscellaneous Income		0	0
Net Changes during 2016-17	\$23,709,631	\$14,445,773	\$9,263,858
Balance at: 06/30/2017	\$198,229,239	\$140,354,673	\$57,874,566

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	Discount Rate -1% 6.15%	Current Discount Rate 7.15%	Discount Rate + 1% 8.15%
Plan's Net Pension Liability/(Asset)	\$87,305,356	\$57,874,566	\$33,833,551

Pension Expense/(Income) for Measurement Period Ended June 30, 2017

Description	Amount
Service Cost	\$5,591,795
Interest on Total Pension Liability	13,280,416
Changes of Benefit Terms	0
Recognized Changes of Assumptions	1,899,896
Recognized Differences between Expected and Actual Experience	(114,477)
Net Plan to Plan Resource Movement	12,085
Employee Contributions	(2,035,009)
Projected Earnings on Pension Plan Investments	(9,007,163)
Recognized Differences between Projected and Actual Earnings on Plan Investments	27,907
Administrative Expense	185,896
Other Miscellaneous Income	0
Total Pension Expense/(Income)	\$9,841,346

Deferred Outflows and Deferred Inflows of Resources Related to Pensions

The following table presents deferred outflows and deferred inflows of resources related to pensions as of June 30, 2017. Note that no adjustments have been made for contributions subsequent to the measurement date. Appropriate treatment of any contributions made after the measurement date is the responsibility of the employer.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$9,343,233	\$(1,188,073)
Differences between Expected and Actual Experience	356,778	(447,120)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	1,967,090	0
Total	\$11,667,101	\$(1,635,193)

Amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in future pension expense as follows:

Measurement Periods Ended June 30:	Deferred Outflows/(Inflows) of Resources
2018	\$1,813,324
2019	4,009,067
2020	3,418,298
2021	791,219
2022	0
Thereafter	0

Note: For employers with June 30th year-end, the fiscal year will be one year later than the measurement period. For example, the 2018 measurement period presented in the above table will be listed as year 2019 in the employer's fiscal year ending June 30, 2018 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2017 is 4.7 years, which was obtained by dividing the total service years of 3,605 (the sum of remaining service lifetimes of the active employees) by 771 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios for the Measurement Periods Ended June 30

Measurement Period	2017	2016	2015	2014
TOTAL PENSION LIABILITY:				
Service Cost	\$5,591,795	\$4,747,270	\$4,630,445	\$4,896,054
Interest on Total Pension Liability	13,280,416	12,479,374	11,705,847	11,071,603
Changes of Benefit Terms	0	0	0	0
Changes of Assumptions	11,868,431	0	(3,063,979)	0
Difference between Expected and Actual Experience	143,288	424,701	(1,153,098)	0
Benefit Payments, Including Refunds of Employee Contributions	(7,174,299)	(6,924,924)	(6,490,975)	(5,952,108)
Net Change in Total Pension Liability	\$23,709,631	\$10,726,421	\$5,628,240	\$10,015,549
Total Pension Liability – Beginning	174,519,608	163,793,187	158,164,947	148,149,398
Total Pension Liability – Ending (a)	\$198,229,239	\$174,519,608	\$163,793,187	\$158,164,947
PLAN FIDUCIARY NET POSITION				
Contributions – Employer	\$5,787,085	\$4,542,710	\$4,084,403	\$3,736,119
Contributions – Employee	2,035,009	1,806,428	1,717,710	1,692,897
Net Investment Income	13,995,959	610,779	2,751,766	18,471,003
Benefit Payments, Including Refunds of Employee Contributions	(7,174,299)	(6,924,924)	(6,490,975)	(5,952,108)
Net Plan to Plan Resource Movement	(12,085)	(14,804)	(28)	0
Administrative Expense	(185,896)	(76,769)	(141,749)	0
Other Miscellaneous Income	0	0	0	0
Net Change in Fiduciary Net Position	\$14,445,773	\$(56,580)	\$1,921,127	\$17,947,911
Plan Fiduciary Net Position – Beginning	\$125,908,900	\$125,965,480	\$124,044,353	\$106,096,442
Plan Fiduciary Net Position – Ending (b)	140,354,673	125,908,900	125,965,480	124,044,353
Plan Net Pension Liability/(Asset) – (a)-(b)	\$57,874,566	\$48,610,708	\$37,827,707	\$34,120,594
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	70.80%	72.15%	76.91%	78.43%
Covered Payroll	\$20,437,848	\$19,250,893	\$18,457,545	\$18,752,360
Plan Net Pension Liability/(Asset) as a Percentage of Covered Payroll	283.17%	252.51%	204.94%	181.95%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2016 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2017, the accounting discount rate reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

Schedule of Plan Contributions for the Fiscal Years Ended June 30¹

Employer Fiscal Year End	2017	2016	2015	2014
Actuarially Determined Contribution ²	\$5,787,085	\$4,542,710	\$4,084,403	\$3,736,119
Contributions in Relation to the Actuarially Determined Contribution ²	(5,787,085)	(4,542,710)	(4,084,403)	(3,736,119)
Contribution Deficiency (Excess)	\$0	\$0	\$0	\$0
Covered Payroll ³	\$20,437,848	\$19,250,893	\$18,457,545	\$18,752,360
Contributions as a Percentage of Covered Payroll ³	28.32%	23.60%	22.13%	19.92%

¹ As prescribed in GASB 68, paragraph 46, the information presented in the Schedule of Plan Contributions should also be presented as of the employer’s most recent fiscal year-end. The employer is responsible for determining this information as prescribed by the standard as this data is not available to CalPERS.

² Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.

³ Includes one year’s payroll growth using 3.00 percent payroll assumption.

Notes to Schedule of Plan Contributions:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2016-17 were derived from the June 30, 2014 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2014 Funding Valuation Report.
Asset Valuation Method	Market Value of Assets. For details, see June 30, 2014 Funding Valuation Report.
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment Rate of Return	7.50% Net of Pension Plan Investment and Administrative Expenses; includes Inflation.
Retirement Age	The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

Other Information:

For changes to previous year’s information, refer to past GASB 68 reports.

APPENDICES

- **APPENDIX A – DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS**
- **APPENDIX B – INTEREST AND TOTAL PROJECTED EARNINGS**

APPENDIX A

DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

- **SCHEDULE OF CHANGES OF ASSUMPTIONS**
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Schedule of Changes of Assumptions

**Increase (Decrease) in Pension Expense Arising from the
 Recognition of the Effects of Changes of Assumptions**

Measurement Date	Changes of Assumptions	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions						
			2017	2018	2019	2020	2021	2022	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(3,063,979)	2.9	(625,302)	(625,302)	(562,771)	0	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	11,868,431	4.7	2,525,198	2,525,198	2,525,198	2,525,198	1,767,639	0	0
Net Increase (Decrease) in Pension Expense			\$1,899,896	\$1,899,896	\$1,962,427	\$2,525,198	\$1,767,639	\$0	\$0

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Changes of Assumptions

Measurement Date	Increase in Total Pension Liability (a)	Decrease in Total Pension Liability (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(3,063,979)	(1,875,906)	0	(1,188,073)
2016	0	0	0	0	0
2017	11,868,431	0	2,525,198	9,343,233	0
				\$9,343,233	\$(1,188,073)

Schedule of Differences between Expected and Actual Experience

**Increase (Decrease) in Pension Expense Arising from the Recognition
 of the Effects of Differences between Expected and Actual Experience**

Measurement Date	Differences between Expected and Actual Experience	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience						
			2017	2018	2019	2020	2021	2022	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(1,153,098)	2.9	(235,326)	(235,326)	(211,794)	0	0	0	0
2016	424,701	3.7	90,362	90,362	90,362	63,253	0	0	0
2017	143,288	4.7	30,487	30,487	30,487	30,487	21,340	0	0
Net Increase (Decrease) in Pension Expense			\$(114,477)	\$(114,477)	\$(90,945)	\$93,740	\$21,340	\$0	\$0

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Expected and Actual Experience

Measurement Date	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(1,153,098)	(705,978)	0	(447,120)
2016	424,701	0	180,724	243,977	0
2017	143,288	0	30,487	112,801	0
				\$356,778	\$(447,120)

Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Differences
 between Projected and Actual Earnings on Pension Plan Investments**

Measurement Date	Differences between Projected and Actual Earnings on Pension Plan Investments	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Differences between Projected and Actual Earnings on Pension Plan Investments						
			2017	2018	2019	2020	2021	2022	Thereafter
2014	\$(10,548,387)	2.0	\$(2,109,677)	\$(2,109,679)	\$0	\$0	\$0	\$0	\$0
2015	6,691,116	3.0	1,338,223	1,338,223	1,338,224	0	0	0	0
2016	8,985,599	4.0	1,797,120	1,797,120	1,797,120	1,797,119	0	0	0
2017	(4,988,796)	5.0	(997,759)	(997,759)	(997,759)	(997,759)	(997,760)	0	0
Net Increase (Decrease) in Pension Expense			\$27,907	\$27,905	\$2,137,585	\$799,360	\$(997,760)	\$0	\$0

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Projected and Actual Earnings on Pension Plan Investments

Measurement Date	Investment Earnings less than Projected (a)	Investment Earnings greater than Projected (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (d) = (a) – (c)	Deferred Inflows of Resources (e) = (b) – (c)
2014	\$0	\$(10,548,387)	\$(8,438,708)	\$0	\$(2,109,679)
2015	6,691,116	0	4,014,669	2,676,447	0
2016	8,985,599	0	3,594,240	5,391,359	0
2017	0	(4,988,796)	(997,759)	0	(3,991,037)
				\$8,067,806	\$(6,100,716)
				Net Deferred Outflows/(Inflows) of Resources	
				(d) + (e)	
				\$1,967,090	

Note: GASB 68 paragraph 33 requires that deferred outflows of resources and deferred inflows of resources arising from differences between projected and actual pension plan investment earnings in different measurement periods should be aggregated and reported as a net deferred outflow or inflow.

Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources

	Net Increase (Decrease) in Pension Expense						
	2017	2018	2019	2020	2021	2022	Thereafter
Changes of Assumptions	\$1,899,896	\$1,899,896	\$1,962,427	\$2,525,198	\$1,767,639	\$0	\$0
Differences between Expected and Actual Experience	(114,477)	(114,477)	(90,945)	93,740	21,340	0	0
Net Differences between Projected and Actual Earnings on Pension Plan Investments	27,907	27,905	2,137,585	799,360	(997,760)	0	0
Grand Total	\$1,813,326	\$1,813,324	\$4,009,067	\$3,418,298	\$791,219	\$0	\$0

APPENDIX B

INTEREST AND TOTAL PROJECTED EARNINGS

- **INTEREST ON TOTAL PENSION LIABILITY AND TOTAL PROJECTED EARNINGS**

Interest on Total Pension Liability and Total Projected Earnings

Interest on Total Pension Liability	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Interest on the Total Pension Liability (a) X (b) X (c)
Beginning Total Pension Liability	\$174,519,608	100%	7.15%	\$12,478,152
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	11,868,431	100%	7.15%	848,593
Difference between Expected and Actual Experience	143,288	100%	7.15%	10,245
Service Cost	5,591,795	50%	7.15%	199,907
Benefit Payments, including Refunds of Employee Contributions	(7,174,299)	50%	7.15%	(256,481)
Total Interest on Total Pension Liability				\$13,280,416

Projected Earnings on Pension Plan Investments	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) X (b) X (c)
Beginning Plan Fiduciary Net Position excluding Receivables ¹	\$125,749,405	100%	7.15%	\$8,991,082
Net Plan to Plan Resource Movement	(12,085)	50%	7.15%	(432)
Employer Contributions	5,787,085	50%	7.15%	206,888
Employee Contributions	2,035,009	50%	7.15%	72,752
Benefit Payments, including Refunds of Employee Contributions	(7,174,299)	50%	7.15%	(256,481)
Administrative Expense	(185,896)	50%	7.15%	(6,646)
Other Miscellaneous Income	0	50%	7.15%	0
Total Projected Earnings				\$9,007,163

¹ Contribution receivables for employee service buybacks, totaling \$159,495 as of June 30, 2016, were excluded for purposes of calculating projected earnings on pension plan investments.