



**BARTEL**  
ASSOCIATES, LLC

**TOWN OF LOS GATOS  
RETIREE HEALTHCARE PLAN**

June 30, 2017 Actuarial Valuation  
Final Results

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**May 14, 2018**

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## BENEFIT SUMMARY

<b>■ Eligibility</b>	<ul style="list-style-type: none"><li>• Retire directly from Town under CalPERS (service or disability)</li><li>• Council members in CalPERS eligible</li></ul>
<b>■ Retiree Medical Benefit</b>	<ul style="list-style-type: none"><li>• Maximum Town contribution is Kaiser Bay Area single premium plus 90% of difference between Kaiser premium for coverage elected (2-party and family) and single premium using non-Medicare and Medicare eligible premiums</li><li>• Town retiree contribution uses PEMHCA 5% unequal method<ul style="list-style-type: none"><li>➢ Town joined PEMHCA in 1991</li><li>➢ Maximum annual increase of \$100 per month - \$1,343.45 for 2-party coverage (B/B) and \$1,447.16 for family coverage (B/B/B) for 2017 non-Medicare eligible retirees</li></ul></li></ul>



## BENEFIT SUMMARY

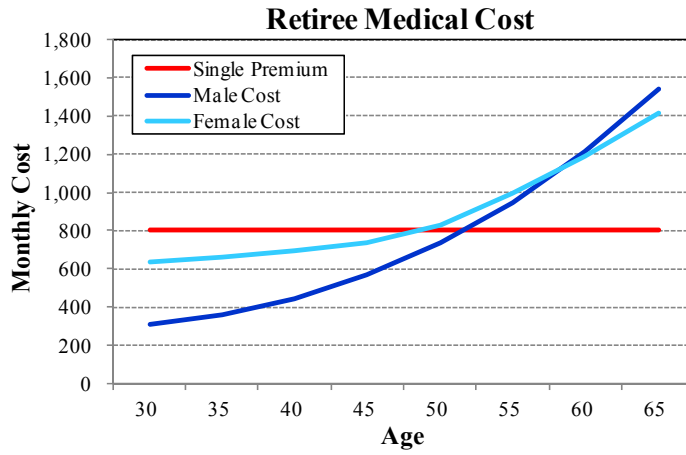
<b>■ Surviving Spouse Benefit</b>	<ul style="list-style-type: none"><li>• Retiree benefit paid to surviving spouse of retiree with CalPERS joint &amp; survivor payment option</li><li>• Retiree benefit paid to spouse of active employee who died while eligible to retire receiving CalPERS survivor benefit</li></ul>
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## BENEFIT SUMMARY

### ■ Implied Subsidy

- Retirees pay blended medical premiums rather than expected medical costs by age and gender
- Active premiums subsidize non-Medicare eligible retiree medical costs (“implied subsidy”)



- Implied subsidy required by Actuarial Standards of Practice for actuarial valuations for PEMHCA plans after 3/31/15



## FUNDING POLICY

### ■ Funding Policy

- Contribute at least full ADC<sup>1</sup> less benefit payments with OPEB trust (CERBT Investment Strategy #1)
- Cash subsidy and implied subsidy benefit payments and PEMHCA administrative fees currently paid by the Town and not reimbursed from CERBT
- Unfunded Liability amortized over 20 years for 2019/20

### ■ Pay-As-You-Go Cost (000's)

Fiscal Year	Cash Subsidy	Implied Subsidy	Total PayGo	Trust Paid	Town Paid
2016/17	\$1,040	\$229	\$1,269	\$0	\$1,269
2015/16	943	253	1,196	0	1,196
2014/15	859	n/a	859	0	859
2013/14	754	n/a	754	0	754
2012/13	687	n/a	687	0	687
2011/12	636	n/a	636	0	636
2010/11	581	n/a	581	0	581
2009/10	400	n/a	400	0	400
2008/09	346	n/a	346	0	346
2007/08	259	n/a	259	0	259

<sup>1</sup> Actuarially Determined Contribution (ADC) is GASBS 75's terminology for the recommended funding contribution.



## FUNDING POLICY

■ Town Contributions (‘000’s)	Fiscal Year	Town PayGo	Trust Prefund	Total Contrib	ARC/ ADC	Discount Rate
	2016/17	\$1,269	\$2,600	\$3,869	\$2,067	7.25%
	2015/16	1,196	1,500	2,696	1,913	7.25%
	2014/15	859	1,300	2,159	1,864	7.25%
	2013/14	754	1,300	2,054	2,619	S&U
	2012/13	687	1,200	1,887	2,492	S&U
	2011/12	636	1,060	1,696	2,129	S&U
	2010/11	581	850	1,431	1,990	S&U
	2009/10	400	550	950	1,953	S&U
	2008/09	346	400	746	1,801	S&U
	2007/08	259	0	259	n/a	n/a



## PARTICIPANT SUMMARY

### Eligible Participants - June 30, 2017

CalPERS Classification	Misc		Safety		Total	
<b>■ Actives</b>						
• Participating (Insurance Program)	83	74%	29	81%	112	76%
• Waived Coverage (Cash Program)	<u>29</u>	<u>26%</u>	<u>7</u>	<u>19%</u>	<u>36</u>	<u>24%</u>
• Total Actives	112	100%	36	100%	148	100%
• Average Age	44.3		42.9		43.9	
• Average Town Service	7.7		11.0		8.5	
• Total Payroll (000’s)	9,400		4,651		14,051	
<b>■ Retirees</b>						
• Participating	90	71%	32	71%	122	71%
• Waived Coverage	<u>37</u>	<u>29%</u>	<u>13</u>	<u>29%</u>	<u>50</u>	<u>29%</u>
• Total Retirees	127	100%	45	100%	172	100%
• Average Age	71.1		63.3		69.0	
• Average Service Retirement Age	59.8		53.6		58.6	
• Average Disabled Retirement Age	49.8		46.4		46.6	
<b>■ Retirees/Actives</b>	112%		125%		115%	



**PARTICIPANT SUMMARY**

**Eligible Participants - June 30, 2015**

CalPERS Classification	Misc		Safety		Total	
<b>■ Actives</b>						
• Participating (Insurance Program)	81	69%	30	77%	111	71%
• Waived Coverage (Cash Program)	<u>37</u>	<u>31%</u>	<u>9</u>	<u>23%</u>	<u>46</u>	<u>29%</u>
• Total Actives	118	100%	39	100%	157	100%
• Average Age	44.9		42.8		44.4	
• Average Town Service	7.9		11.1		8.7	
• Total Payroll (000's)	9,485		4,869		14,354	
<b>■ Retirees</b>						
• Participating	85	70%	24	60%	109	67%
• Waived Coverage	<u>37</u>	<u>30%</u>	<u>16</u>	<u>40%</u>	<u>53</u>	<u>33%</u>
• Total Retirees	122	100%	40	100%	162	100%
• Average Age	70.5		65.1		69.2	
• Average Service Retirement Age	59.8		53.8		58.8	
• Average Disabled Retirement Age	49.8		47.1		47.3	
<b>■ Retirees/Actives</b>	103%		103%		103%	



**PARTICIPANT SUMMARY**

**Participant Reconciliation**  
**Miscellaneous**

Participants	Actives	Retirees			
		Service	Disabled	Survivors	Total
<b>■ June 30, 2015</b>	118	107	1	14	122
• Terminations <sup>2</sup>	(23)	-	-	-	-
• New Retirees & Survivors	(10)	10	0	0	10
• Retiree Deaths with Survivor	-	(1)	(0)	1	-
• Retiree Deaths without Survivor <sup>3</sup>	-	(4)	(0)	(2)	(6)
• New Hires	28	-	-	-	-
• Data Corrections	(1)	1	0	0	1
<b>■ June 30, 2017</b>	112	113	1	13	127

<sup>2</sup> Active employees reported for the 6/30/15 valuation and not reported for the 6/30/17 valuation were assumed to be terminations and deaths before retirement.

<sup>3</sup> Retirees reported for the 6/30/15 valuation and not reported for the 6/30/17 valuation were assumed to be deaths without covered survivors.




## PARTICIPANT SUMMARY

### Participant Reconciliation Safety

Participants	Actives	Retirees			
		Service	Disabled	Survivors	Total
■ <b>June 30, 2015</b>	39	23	13	4	40
• Terminations <sup>4</sup>	(0)	-	-	-	-
• New Retirees & Survivors	(7)	2	5	0	7
• Retiree Deaths with Survivor	-	(0)	(1)	1	-
• Retiree Deaths without Survivor <sup>5</sup>	-	(0)	(1)	(1)	(2)
• New Hires	3	-	-	-	-
• Data Corrections	1	0	0	0	0
■ <b>June 30, 2017</b>	36	25	16	4	45

<sup>4</sup> Active employees reported for the 6/30/15 valuation and not reported for the 6/30/17 valuation were assumed to be terminations and deaths before retirement.

<sup>5</sup> Retirees reported for the 6/30/15 valuation and not reported for the 6/30/17 valuation were assumed to be deaths without covered survivors.

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## ASSETS

### Market Value of Plan Assets (Amounts in 000's)

Market Value of Assets	2013/14	2014/15	2015/16	2016/17
■ <b>Market Value at Beginning of Year</b>	\$4,866	\$7,061	\$8,346	\$9,958
• Town Contributions				
➢ Trust Prefunding Contributions	1,300	1,300	1,500	2,600
➢ Town Cash Subsidy Benefit Payments	754	859	943	1,040
➢ Town Implied Subsidy Benefit Payments	n/a	n/a	253	229
➢ Total Contributions	2,054	2,159	2,696	3,869
• Investment Earnings	903	(8)	119	1,053
• Benefit Payments				
➢ Cash Subsidy Benefit Payments	(754)	(859)	(943)	(1,040)
➢ Implied Subsidy Benefit Payments	n/a	n/a	(253)	(229)
➢ Total Benefit Payments	(754)	(859)	(1,196)	(1,269)
• Investment Expenses	n/a	n/a	(3)	(4)
• Administrative Expenses	(7)	(7)	(4)	(5)
■ <b>Market Value at End of Year</b>	7,061	8,346	9,958	13,601
■ <b>Estimated Annual Return</b>	18.4%	(0.2%)	1.3%	10.5%
■ <b>CERBT #1 Annual Return</b>	18.5%	(0.1%)	1.0%	10.6%

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**ASSETS**

**Actuarial Value of Plan Assets**

(Amounts in 000's)

Actuarial Value of Assets	2013/14	2014/15	2015/16	2016/17
■ <b>Actuarial Value at Beginning of Year</b>	\$4,652	\$6,444	\$ 8,238	\$ 10,261
• Town Contributions	2,054	2,159	2,696	3,869
• Expected Net Earnings	337	467	598	745
• Benefit Payments	<u>(754)</u>	<u>(859)</u>	<u>(1,196)</u>	<u>(1,269)</u>
■ <b>Expected AVA at End of Year</b>	6,289	8,212	10,336	13,606
■ <b>Accrued Market Value at End of Year</b>	7,061	8,346	9,958	13,601
■ <b>MVA - Expected AVA</b>	772	134	(379)	(5)
■ <b>1/5 of (MVA - Expected AVA)</b>	154	27	(76)	(1)
■ <b>Preliminary AVA</b>	6,444	8,238	10,261	13,605
■ <b>Minimum AVA (80% of MVA)</b>	5,649	6,677	7,966	10,881
■ <b>Maximum AVA (120% of MVA)</b>	8,473	10,015	11,949	16,321
■ <b>Actuarial Value at End Year</b>	6,444	8,238	10,261	13,605
■ <b>Actuarial Value Estimated Net Return</b>	10.6%	7.7%	6.3%	7.2%
■ <b>AVA / MVA</b>	91%	99%	103%	100%



**VALUATION RESULTS**

**Actuarial Obligations**

Actuarial Obligations (Amounts in 000's)	<u>6/30/15 Valuation</u>		<u>6/30/17 Valuation</u>	
	Actual 6/30/15	Projected 6/30/17	Actual 6/30/17	Projected 6/30/18
■ <b>Discount Rate</b>	7.25%	7.25%	6.75%	6.75%
■ <b>Present Value of Benefits</b>				
• Actives	\$18,080	n/a	\$19,569	n/a
• Retirees	<u>11,786</u>	<u>n/a</u>	<u>15,436</u>	<u>n/a</u>
• Total	29,866	\$31,894	35,005	\$36,066
■ <b>Actuarial Accrued Liability</b>				
• Actives	9,191	n/a	9,337	n/a
• Retirees	<u>11,786</u>	<u>n/a</u>	<u>15,436</u>	<u>n/a</u>
• Total	20,977	24,061	24,773	26,390
■ <b>Actuarial Value of Assets</b>	<u>8,238</u>	<u>11,451</u>	<u>13,605</u>	<u>15,349</u>
■ <b>Unfunded AAL</b>	12,739	12,610	11,168	11,041
■ <b>Funded Percentage</b>	39.3%	47.6%	54.9%	58.2%
■ <b>Annual Cost for Following Year</b>				
• Normal Cost	1,174	1,212	1,247	1,285
• PEMHCA Administrative Fee	n/a	n/a	4	4
• CERBT Administrative Expenses	<u>n/a</u>	<u>n/a</u>	<u>8</u>	<u>9</u>
• Total	1,174	1,212	1,259	1,298



**VALUATION RESULTS**

**Actuarial Obligations**  
**June 30, 2017**

Actuarial Obligations (Amounts in 000's)	Cash Subsidy	Implied Subsidy	Total Subsidy
■ <b>Discount Rate</b>	6.75%	6.75%	6.75%
■ <b>Present Value of Benefits</b>			
• Actives	\$16,645	\$2,924	\$19,569
• Retirees	<u>14,301</u>	<u>1,135</u>	<u>15,436</u>
• Total	30,946	4,059	35,005
■ <b>Actuarial Accrued Liability</b>			
• Actives	7,881	1,456	9,337
• Retirees	<u>14,301</u>	<u>1,135</u>	<u>15,436</u>
• Total	22,182	2,591	24,773
■ <b>Actuarial Value of Assets<sup>6</sup></b>	<u>12,182</u>	<u>1,423</u>	<u>13,605</u>
■ <b>Unfunded AAL</b>	10,000	1,168	11,168
■ <b>Annual Cost 2017/18</b>			
• Normal Cost	1,109	176	1,285
• PEMHCA Administrative Fee	4	n/a	4
• CERBT Administrative Expenses	<u>9</u>	<u>n/a</u>	<u>9</u>
• Total	1,122	176	1,298

<sup>6</sup> Actuarial Value of Assets allocated to cash subsidy and implied subsidy in proportion to Actuarial Accrued Liability.



**VALUATION RESULTS**

**Estimated Gains & Losses**  
(Amounts in 000's)

Actuarial Gains & Losses	AAL	(AVA)	UAAL	Fund%
■ <b>6/30/15 Actual Amounts</b>	\$20,977	(\$8,238)	\$12,739	39.3%
■ <b>6/30/17 Expected Amounts</b>	24,061	(11,451)	12,610	47.6%
■ <b>Experience Losses (Gains)</b>				
• Actual versus expected premiums	(357)	-	(357)	
• Demographic & other	(449)	-	(449)	
• Asset loss (gain)	-	(2,154)	(2,154)	
■ <b>Assumption Changes</b>				
• Economic assumptions <sup>7</sup>	897	-	897	
• Healthcare trend	1,301	-	1,301	
• Demographic assumptions	(40)	-	(40)	
• Mortality Improvement	(558)	-	(558)	
• Remove administrative expense from AAL	<u>(82)</u>	<u>-</u>	<u>(82)</u>	
■ <b>Total Changes</b>	712	(2,154)	(1,442)	7.3%
■ <b>6/30/17 Actual Amounts</b>	24,773	(13,605)	11,168	54.9%

<sup>7</sup> Includes the impact of changing the inflation assumption on the discount rate, aggregate payroll increase, and prior healthcare trend assumptions.





VALUATION RESULTS



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VALUATION RESULTS

**Actuarially Determined Contributions (ADC)**

(Amounts in 000's)

Actuarially Determined Contribution	<u>6/30/15 Valuation</u>		<u>6/30/17 Valuation</u>	
	2016/17	2017/18	2018/19	2019/20
■ <b>Discount Rate</b>	7.25%	7.25%	6.75%	6.75%
■ <b>ADC - \$</b>				
• Annual Cost	\$1,174	\$1,212	\$1,298	\$1,337
• UAAL Amortization	<u>893</u>	<u>917</u>	<u>810</u>	<u>835</u>
• Total ADC	2,067	2,129	2,108	2,172
■ <b>Projected Payroll<sup>8</sup></b>	15,059	15,549	14,688	15,129
■ <b>ADC - %</b>				
• Annual Cost	7.8%	7.8%	8.8%	8.8%
• UAAL Amortization	<u>5.9%</u>	<u>5.9%</u>	<u>5.5%</u>	<u>5.5%</u>
• Total ADC%	13.7%	13.7%	14.4%	14.4%
■ <b>UAAL Amortization Years</b>	22	21	20	19

<sup>8</sup> For 2016/17, 7/1/15 annual pay rate was projected 1.5 years using the aggregate payroll assumption of 3.25%. For 2018/19, 7/1/17 annual pay rate was projected 1.5 years using the aggregate payroll assumption of 3.00%.



**VALUATION RESULTS**

**Actuarially Determined Contribution (ADC)**

**2018/19 Fiscal Year**

(Amounts in 000's)

Actuarially Determined Contribution	Cash Subsidy	Implied Subsidy	Total Subsidy
■ <b>Discount Rate</b>	6.75%	6.75%	6.75%
■ <b>ADC - \$</b>			
• Annual Cost	\$1,122	\$176	\$1,298
• UAAL Amortization	<u>726</u>	<u>84</u>	<u>810</u>
• Total ADC	1,848	260	2,108
■ <b>Projected Payroll</b>	14,688	14,688	14,688
■ <b>ADC - %</b>			
• Annual Cost	7.6%	1.2%	8.8%
• UAAL Amortization	<u>4.9%</u>	<u>0.6%</u>	<u>5.5%</u>
• Total ADC%	12.6%	1.8%	14.4%
■ <b>UAAL Amortization Years</b>	20	20	20



**VALUATION RESULTS**

**Benefit Payment Projection**

(Amounts in 000's)

Fiscal Year End	Cash Subsidy			Implied Subsidy	Total Benefit Payments
	Current Actives	Current Retirees	Total Cash		
2018	\$ 35	\$1,037	\$1,072	\$188	\$1,260
2019	110	1,045	1,155	195	1,350
2020	188	1,050	1,238	201	1,439
2021	268	1,046	1,314	185	1,499
2022	357	1,061	1,418	197	1,615
2023	443	1,062	1,505	197	1,702
2024	550	1,061	1,611	208	1,819
2025	658	1,055	1,713	210	1,923
2026	762	1,061	1,823	223	2,046
2027	869	1,082	1,951	247	2,198
PVB <sup>9</sup>	16,645	14,301	30,946	4,059	35,005

<sup>9</sup> Present Value of Benefits for all years, including those after the 10 years shown. The Present Value of Benefits is the discounted value of future expected Town benefit payments using the valuation discount rate.



**VALUATION RESULTS**

**Total Payments Projection**

(Amounts in 000's)

<b>Fiscal Year End</b>	<b>Cash Benefit Payments</b>	<b>PEMHCA Admin Expense</b>	<b>Total Cash Payments</b>	<b>Implied Subsidy Payments</b>	<b>Total Benefit Payments</b>
2018	\$1,072	\$4	\$1,076	\$188	\$1,264
2019	1,155	4	1,159	195	1,354
2020	1,238	4	1,242	201	1,443
2021	1,314	5	1,319	185	1,504
2022	1,418	5	1,423	197	1,620
2023	1,505	5	1,510	197	1,707
2024	1,611	6	1,617	208	1,825
2025	1,713	6	1,719	210	1,929
2026	1,823	7	1,830	223	2,053
2027	1,951	7	1,958	247	2,205



**VALUATION RESULTS**

**Implied Subsidy Illustration**

(Amounts in 000's)

<b>2018/19</b>	<b>Pay-As-You-Go Cost</b>			<b>Town Contribution</b>		
	<b>Actives</b>	<b>OPEB</b>	<b>Total</b>	<b>Actives</b>	<b>OPEB<sup>10</sup></b>	<b>Total</b>
<b>■ Before Implied Subsidy</b>						
• Cash Subsidy <sup>11</sup>	\$2,000	\$1,159	\$3,159	\$2,000	\$1,848	\$3,848
• Implied Subsidy	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
• Total	2,000	1,159	3,159	2,000	1,848	3,848
<b>■ After Implied Subsidy</b>						
• Cash Subsidy	2,000	1,159	3,159	2,000	1,848	3,848
• Implied Subsidy <sup>12</sup>	<u>(195)</u>	<u>195</u>	<u>0</u>	<u>(195)</u>	<u>260</u>	<u>65</u>
• Total	1,805	1,354	3,159	1,805	2,108	3,913
<b>■ Change</b>						
• Cash Subsidy	0	0	0	0	0	0
• Implied Subsidy	<u>(195)</u>	<u>195</u>	<u>0</u>	<u>(195)</u>	<u>260</u>	<u>65</u>
• Total	(195)	195	0	(195)	260	65

<sup>10</sup> The Town contribution is shown as the ADC for purposes of this illustration.

<sup>11</sup> Estimate of Town's active employee cash subsidy.

<sup>12</sup> The Town's active premium pay-as-you-go cost is offset by the estimated retiree implied subsidy pay-as-you-go cost.



VALUATION RESULTS



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VALUATION RESULTS

**Contribution Projection - Full ADC Funding**

(Amounts in 000's)

Fiscal Year End <sup>13</sup>	Actuarially Determined Contribution					Town Contributions <sup>14</sup>			
	Annual Cost	UAAL Amort	ADC	Projected Payroll	ADC % Pay	Cash Subsidy	Implied Subsidy	Trust Funding	Total Contrib
2018	\$1,212	\$917	\$2,129	\$15,549	13.7%	\$0	\$0	\$2,129	\$2,129
2019	1,298	810	2,108	14,688	14.4%	0	0	2,108	2,108
2020	1,337	835	2,172	15,129	14.4%	0	0	2,172	2,172
2021	1,378	860	2,238	15,583	14.4%	0	0	2,238	2,238
2022	1,421	886	2,307	16,050	14.4%	0	0	2,307	2,307
2023	1,465	912	2,377	16,531	14.4%	0	0	2,377	2,377
2024	1,509	940	2,449	17,027	14.4%	0	0	2,449	2,449
2025	1,556	968	2,524	17,538	14.4%	0	0	2,524	2,524
2026	1,604	997	2,601	18,064	14.4%	0	0	2,601	2,601
2027	1,653	1,027	2,680	18,606	14.4%	0	0	2,680	2,680

<sup>13</sup> ADC for the fiscal year ending 6/30/18 was determined by the 6/30/15 actuarial valuation.

<sup>14</sup> Projection assumes Town requests benefit payments, including PEMHCA administrative fees, from the OPEB trust.



## VALUATION RESULTS


### Funded Status Projection - Full ADC Funding

(Amounts in 000's)

Fiscal Year End	Actuarial Value of Assets <sup>15</sup>						Funded Status		
	BOY AVA	Trust Funding	CS Payments	IS Payments	Expected Earnings	EOY AVA	BOY AAL	BOY UAAL <sup>16</sup>	BOY Fund%
2018	\$13,605	\$2,129	(\$1,076)	(\$188)	\$879	\$15,349	\$24,773	\$11,168	55%
2019	15,349	2,108	(1,159)	(195)	981	17,084	26,390	11,041	58%
2020	17,084	2,172	(1,242)	(201)	1,094	18,907	28,061	10,977	61%
2021	18,907	2,238	(1,319)	(185)	1,216	20,857	29,791	10,884	63%
2022	20,857	2,307	(1,423)	(197)	1,341	22,885	31,616	10,759	66%
2023	22,885	2,377	(1,510)	(197)	1,473	25,028	33,484	10,600	68%
2024	25,028	2,449	(1,617)	(208)	1,614	27,266	35,432	10,403	71%
2025	27,266	2,524	(1,719)	(210)	1,760	29,621	37,433	10,166	73%
2026	29,621	2,601	(1,830)	(223)	1,914	32,083	39,506	9,885	75%
2027	32,083	2,680	(1,958)	(247)	2,073	34,631	41,638	9,555	77%

<sup>15</sup> Projection assumes Town requests benefit payments, including PEMHCA administrative fees, from the OPEB trust. Expected earnings is shown net of investment and CERBT administrative expenses.

<sup>16</sup> UAAL is amortized over 20 years for 2018/19 and is projected to be fully funded on 6/30/38.

 May 14, 2018

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## ACTUARIAL CERTIFICATION

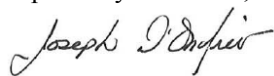
This report presents the Town of Los Gatos Retiree Healthcare Plan ("Plan") June 30, 2017 actuarial valuation. The purpose of this valuation is to calculate the June 30, 2017 funded status and the 2018/19 and 2019/20 Actuarially Determined Contributions.

This report provides recommended contribution information for Plan funding and may not be appropriate for other purposes. Future valuations may differ significantly if the Plan's experience differs from the assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The scope of the valuation did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, and asset information provided by the Town as summarized in this report, which we relied on but did not audit. We reviewed the participant data for reasonableness.

To the best of our knowledge, this report is complete and accurate and has been completed using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries meeting the Academy's Qualification Standards, we certify the actuarial results and opinions herein.


Respectfully submitted,



Joseph R. D'Onofrio, FSA, EA, MAAA, FCA  
Assistant Vice President  
Bartel Associates, LLC  
May 14, 2018



Katherine Moore, ASA, MAAA  
Associate Actuary  
Bartel Associates, LLC  
May 14, 2018

 May 14, 2018

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**EXHIBITS**

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Premiums	E-1
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**PREMIUMS**

**2017 PEMHCA Monthly Premiums**  
Bay Area

<b>Medical Plan</b>	<b>Non-Medicare Eligible</b>			<b>Medicare Eligible</b>		
	<b>Single B</b>	<b>2-Party B/B</b>	<b>Family B/B/B</b>	<b>Single M</b>	<b>2-Party M/M</b>	<b>Family M/M/B</b>
Anthem HMO Select	\$783.46	\$1,566.92	\$2,037.00	n/a	n/a	n/a
Anthem HMO Traditional	990.05	1,980.10	2,574.13	n/a	n/a	n/a
Blue Shield Access+	1,024.85	2,049.70	2,664.61	n/a	n/a	n/a
Health Net SmartCare	733.29	1,466.58	1,906.55	n/a	n/a	n/a
Kaiser	733.39	1,466.78	1,906.81	\$300.48	\$600.96	\$1,040.99
UnitedHealthcare	1,062.26	2,124.52	2,761.88	324.21	648.42	1,285.78
PERS Choice	830.30	1,660.60	2,158.78	353.63	707.26	1,205.44
PERS Select	736.27	1,472.54	1,914.30	353.63	707.26	1,149.02
PERSCare	932.39	1,864.78	2,424.21	389.76	779.52	1,338.95
PORAC	699.00	1,467.00	1,876.00	464.00	924.00	1,333.00



**PREMIUMS**

**2018 PEMHCA Monthly Premiums**  
**Bay Area**

Medical Plan	Non-Medicare Eligible			Medicare Eligible		
	Single B	2-Party B/B	Family B/B/B	Single M	2-Party M/M	Family M/M/B
Anthem HMO Select	\$856.41	\$1,712.82	\$2,226.67	n/a	n/a	n/a
Anthem HMO Traditional	925.47	1,850.94	2,406.22	\$370.34	\$740.68	\$1,295.96
Blue Shield Access+	889.02	1,778.04	2,311.45	n/a	n/a	n/a
Health Net SmartCare	863.48	1,726.96	2,245.05	n/a	n/a	n/a
Kaiser	779.86	1,559.72	2,027.64	316.34	632.68	1,100.60
UnitedHealthcare	1,371.84	2,743.68	3,566.78	330.76	661.52	1,484.62
Western Health Advantage	792.56	1,585.12	2,060.66	n/a	n/a	n/a
PERS Choice	800.27	1,600.54	2,080.70	345.97	691.94	1,172.10
PERS Select	717.50	1,435.00	1,865.50	345.97	691.94	1,122.44
PERSCare	882.45	1,764.90	2,294.37	382.30	764.60	1,294.07
PORAC	734.00	1,540.00	1,970.00	487.00	970.00	1,400.00



**PREMIUMS**

**PEMHCA Monthly Premium Increases**  
**Bay Area - 2017 to 2018**

Medical Plan	Actual Increases		Assumed Increases	
	Non-Medicare	Medicare	Non-Medicare	Medicare
Anthem HMO Select	9.3%	n/a	6.5%	n/a
Anthem HMO Traditional	(6.5%)	n/a	6.5%	n/a
Blue Shield Access+	(13.3%)	n/a	6.5%	n/a
Health Net SmartCare	17.8%	n/a	6.5%	n/a
Kaiser	6.3%	5.3%	6.5%	6.7%
UnitedHealthcare	29.1%	2.0%	6.5%	6.7%
Western Health Advantage	n/a	n/a	n/a	n/a
PERS Choice	(3.6%)	(2.2%)	6.5%	6.7%
PERS Select	(2.5%)	(2.2%)	6.5%	6.7%
PERSCare	(5.4%)	(1.9%)	6.5%	6.7%
PORAC (single)	5.0%	5.0%	6.5%	6.7%



**PARTICIPANT STATISTICS**

**Medical Plan Participation  
Miscellaneous Non-Waived Participants<sup>17</sup>**

Medical Plan	June 30, 2015			June 30, 2017		
	Actives	Retirees		Actives	Retirees	
		< 65	≥ 65		< 65	≥ 65
Anthem HMO Select	31%	8%	0%	13%	8%	0%
Anthem HMO Traditional	6%	4%	0%	8%	0%	0%
Blue Shield Access+	0%	15%	15%	3%	11%	0%
Blue Shield NetValue	5%	8%	0%	n/a	n/a	n/a
Health Net SmartCare	n/a	n/a	n/a	3%	8%	0%
Kaiser	30%	23%	29%	57%	31%	27%
UnitedHealthcare	1%	0%	2%	0%	0%	17%
PERS Choice	22%	31%	30%	12%	34%	33%
PERS Select	0%	0%	0%	2%	0%	0%
PERSCare	5%	11%	24%	2%	8%	23%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<sup>17</sup> Excludes Cash Allocation Program actives and waived retirees.



**PARTICIPANT STATISTICS**

**Medical Plan Participation  
Safety Non-Waived Participants<sup>18</sup>**

Medical Plan	June 30, 2015			June 30, 2017		
	Actives	Retirees		Actives	Retirees	
		< 65	≥ 65		< 65	≥ 65
Anthem HMO Select	33%	0%	0%	17%	11%	0%
Anthem HMO Traditional	10%	0%	0%	0%	0%	0%
Blue Shield Access+	0%	9%	8%	0%	5%	0%
Blue Shield NetValue	0%	9%	0%	n/a	n/a	n/a
Health Net SmartCare	n/a	n/a	n/a	0%	0%	0%
Kaiser	30%	18%	23%	48%	21%	23%
UnitedHealthcare	0%	0%	0%	0%	0%	8%
PERS Choice	7%	37%	23%	4%	26%	23%
PERS Select	3%	0%	0%	0%	0%	0%
PERSCare	0%	0%	8%	0%	0%	8%
PORAC	17%	27%	38%	31%	37%	38%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<sup>18</sup> Excludes Cash Allocation Program actives and waived retirees.





**PARTICIPANT STATISTICS**

**Active Medical Coverage**  
Miscellaneous

Medical Plan	Single	2-Party	Family	Cash	Total
Anthem Select	2	2	7		11
Anthem Traditional	5		2		7
Blue Shield Access+		1	1		2
Health Net SmartCare	1		1		2
Kaiser	26	6	15		47
UnitedHealthcare					0
PERS Choice	2	3	5		10
PERS Select			2		2
PERSCare	2				2
Cash Allocation Program				29	29
<b>Total</b>	<b>38</b>	<b>12</b>	<b>33</b>	<b>29</b>	<b>112</b>
Election %	46%	14%	40%		
Waived %				26%	



**PARTICIPANT STATISTICS**

**Active Medical Coverage**  
Safety

Medical Plan	Single	2-Party	Family	Cash	Total
Anthem Select			5		5
Anthem Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser	3	2	9		14
UnitedHealthcare					0
PERS Choice	1				1
PERS Select					0
PERSCare					0
PORAC	1	2	6		9
Cash Allocation Program				7	7
<b>Total</b>	<b>5</b>	<b>4</b>	<b>20</b>	<b>7</b>	<b>36</b>
Election %	17%	14%	69%		
Waived %				19%	



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage  
Miscellaneous - Under Age 65**

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem Select		1	1		2
Anthem Traditional					0
Blue Shield Access+	3				3
Health Net SmartCare	1	1			2
Kaiser	4	4			8
UnitedHealthcare					0
PERS Choice	4	5			9
PERS Select					0
PERSCare	1	1			2
Waived				8	8
<b>Total</b>	<b>13</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>34</b>
Election %	50%	46%	4%		
Waived %				24%	



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage  
Safety - Under Age 65**

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem Select	1		1		2
Anthem Traditional					0
Blue Shield Access+		1			1
Health Net SmartCare					0
Kaiser	2	1	1		4
UnitedHealthcare					0
PERS Choice	3	2			5
PERS Select					0
PERSCare					0
PORAC	1	3	3		7
Waived				8	8
<b>Total</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>27</b>
Election %	37%	37%	26%		
Waived %				30%	



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage**  
**Miscellaneous - Age 65 & Over**

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem Select					0
Anthem Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser	11	6			17
UnitedHealthcare	5	6			11
PERS Choice	11	10			21
PERS Select					0
PERSCare	8	7			15
Waived				29	29
<b>Total</b>	<b>35</b>	<b>29</b>	<b>0</b>	<b>29</b>	<b>93</b>
Election %	55%	45%	0%		
Waived %				31%	



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage**  
**Safety - Age 65 & Over**

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem Select					0
Anthem Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser	2	1			3
UnitedHealthcare			1		1
PERS Choice	2	1			3
PERS Select					0
PERSCare	1				1
PORAC	1	4			5
Waived				5	5
<b>Total</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>18</b>
Election %	46%	46%	8%		
Waived %				28%	



**PARTICIPANT STATISTICS**

**Actives by Age and Town Service**  
Miscellaneous

Age	Town Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	3							3
25-29	6	9						15
30-34		8	1					9
35-39	2	8	1	1	1	1		14
40-44	1	10	2	3	2			18
45-49		3	3	3	3			12
50-54	1	8	3	1	4		1	18
55-59	1	6		1	2		1	11
60-64			1	1	2	1	4	9
≥ 65			1	1			1	3
<b>Total</b>	14	52	12	11	14	2	7	112



**PARTICIPANT STATISTICS**

**Actives by Age and Town Service**  
Safety

Age	Town Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25								0
25-29		4						4
30-34		2		2				4
35-39		1	2		1			4
40-44		2		1	3			6
45-49	1	4		1	5	1		12
50-54					2	1		3
55-59					2			2
60-64					1			1
≥ 65								0
<b>Total</b>	1	13	2	4	14	2	0	36



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage by Age Group**

**Miscellaneous**

Age	Single	2-Party	Family	Waived	Total
Under 50					0
50-54	1	1			2
55-59	3	4		3	10
60-64	9	7	1	5	22
65-69	10	10		8	28
70-74	10	13		4	27
75-79	8	3		8	19
80-84	4	3		2	9
85+	3			7	10
<b>Total</b>	<b>48</b>	<b>41</b>	<b>1</b>	<b>37</b>	<b>127</b>

Average Age	71.1	68.9	61.5	73.7	71.1
Election %	53%	46%	1%		
Waived %				29%	



**PARTICIPANT STATISTICS**

**Retiree Medical Coverage by Age Group**

**Safety**

Age	Single	2-Party	Family	Waived	Total
Under 50	1		3	3	7
50-54	1		1		2
55-59	3	3	1		7
60-64	2	4		5	11
65-69	2	2	1	1	6
70-74	2	1		1	4
75-79	1	1		3	5
80-84		2			2
85+	1				1
<b>Total</b>	<b>13</b>	<b>13</b>	<b>6</b>	<b>13</b>	<b>45</b>

Average Age	65.1	67.1	51.1	63.4	63.3
Election %	41%	41%	18%		
Waived %				29%	



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<p>■ Valuation Date</p>	<ul style="list-style-type: none"> <li>• June 30, 2015</li> <li>• 2016/17 ARC and 2017/18 ADC</li> <li>• ARC/ADC calculated as of beginning of the year with interest to end of year</li> <li>• 1-year lag period between valuation date and first fiscal year ARC</li> </ul>	<ul style="list-style-type: none"> <li>• June 30, 2017</li> <li>• 2018/19 and 2019/20 ADCs</li> <li>• ADC calculated as of beginning of the year with interest to end of year</li> <li>• 1-year lag period between valuation date and first fiscal year ADC</li> </ul>
<p>■ Funding Policy</p>	<ul style="list-style-type: none"> <li>• Prefund full ARC less benefit payments with CERBT #1</li> <li>• Benefit payments currently made from Town assets</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
<p>■ General Inflation</p>	<ul style="list-style-type: none"> <li>• 3% annually</li> <li>• Basis for aggregate payroll and discount rate assumptions</li> </ul>	<ul style="list-style-type: none"> <li>• 2.75% annually</li> <li>• Basis for aggregate payroll and discount rate assumptions</li> </ul>



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>																																				
<p>■ Target Asset Allocation and Expected Long-Term Real Returns</p>	<ul style="list-style-type: none"> <li>• 2010 capital market assumptions</li> <li>• 2010 CERBT #1 target asset allocation</li> </ul> <table border="1"> <thead> <tr> <th><u>CERBT #1</u></th> <th><u>Mix</u></th> <th><u>Return</u></th> </tr> </thead> <tbody> <tr> <td>Global Equity</td> <td>66%</td> <td>5.35%</td> </tr> <tr> <td>Fixed Income</td> <td>18%</td> <td>1.55%</td> </tr> <tr> <td>TIPS</td> <td>5%</td> <td>1.53%</td> </tr> <tr> <td>REITs</td> <td>8%</td> <td>4.03%</td> </tr> <tr> <td>Commodities</td> <td>3%</td> <td>1.90%</td> </tr> </tbody> </table>	<u>CERBT #1</u>	<u>Mix</u>	<u>Return</u>	Global Equity	66%	5.35%	Fixed Income	18%	1.55%	TIPS	5%	1.53%	REITs	8%	4.03%	Commodities	3%	1.90%	<ul style="list-style-type: none"> <li>• 2017 capital market assumptions</li> <li>• 2017 CERBT #1 target asset allocation</li> </ul> <table border="1"> <thead> <tr> <th><u>CERBT #1</u></th> <th><u>Mix</u></th> <th><u>Return</u></th> </tr> </thead> <tbody> <tr> <td>Global Equity</td> <td>57%</td> <td>4.82%</td> </tr> <tr> <td>Fixed Income</td> <td>27%</td> <td>1.47%</td> </tr> <tr> <td>TIPS</td> <td>5%</td> <td>1.29%</td> </tr> <tr> <td>REITs</td> <td>8%</td> <td>3.76%</td> </tr> <tr> <td>Commodities</td> <td>3%</td> <td>0.84%</td> </tr> </tbody> </table>	<u>CERBT #1</u>	<u>Mix</u>	<u>Return</u>	Global Equity	57%	4.82%	Fixed Income	27%	1.47%	TIPS	5%	1.29%	REITs	8%	3.76%	Commodities	3%	0.84%
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Commodities	3%	0.84%																																				
<p>■ Discount Rate</p>	<ul style="list-style-type: none"> <li>• 7.25%</li> <li>• 2010 capital market assumptions</li> <li>• 3.00% assumed inflation</li> <li>• 15 bp investment and administrative expenses</li> <li>• 55% confidence level</li> </ul>	<ul style="list-style-type: none"> <li>• 6.75%</li> <li>• 2017 capital market assumptions</li> <li>• 2.75% assumed inflation</li> <li>• 4 bp investment expenses with no administrative expenses</li> <li>• 50% confidence level</li> </ul>																																				



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<ul style="list-style-type: none"> <li>■ Aggregate Payroll Increases</li> </ul>	<ul style="list-style-type: none"> <li>• 3.25% annually</li> <li>• Inflation plus 0.25%</li> <li>• For Normal Cost calculation and UAAL amortization</li> </ul>	<ul style="list-style-type: none"> <li>• 3.00% annually</li> <li>• Inflation plus 0.25%</li> <li>• For Normal Cost calculation and UAAL amortization</li> </ul>
<ul style="list-style-type: none"> <li>■ Merit Payroll Increases</li> </ul>	<ul style="list-style-type: none"> <li>• CalPERS 1997-2011 Experience Study</li> <li>• Added to aggregate payroll increase assumption for Normal Cost calculation</li> </ul>	<ul style="list-style-type: none"> <li>• CalPERS 1997-2015 Experience Study</li> <li>• Added to aggregate payroll increase assumption for Normal Cost calculation</li> </ul>
<ul style="list-style-type: none"> <li>■ Administration Expenses</li> </ul>	<ul style="list-style-type: none"> <li>• CERBT - included with discount rate</li> <li>• PEMHCA - 0.31% of retiree premium included with AAL</li> </ul>	<ul style="list-style-type: none"> <li>• CERBT - 0.06% of assets added to Normal Cost</li> <li>• PEMHCA - 0.33% of retiree premium added to Normal Cost</li> </ul>
<ul style="list-style-type: none"> <li>■ CalPERS Service</li> </ul>	<ul style="list-style-type: none"> <li>• Total CalPERS service used for CalPERS demographic assumptions</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<ul style="list-style-type: none"> <li>■ PPACA High Cost Plan Excise Tax</li> </ul>	<ul style="list-style-type: none"> <li>• 2% cash subsidy load</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
<ul style="list-style-type: none"> <li>■ Medical Trend Basis</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Short-term healthcare trend was developed in consultation with Axene Health Partners' healthcare actuaries</li> <li>• Long-term healthcare trend developed using Society of Actuaries' Getzen Model of Long-Run Medical Cost Trends</li> </ul>



**ACTUARIAL ASSUMPTIONS**

Assumption	June 30, 2015 Valuation			June 30, 2017 Valuation		
	Year	Increase from Prior Year		Year	Increase from Prior Year	
■ Medical Trend		<u>Non-Medicare</u>	<u>Medicare</u>		<u>Non-Medicare</u>	<u>Medicare</u>
	2015	Premiums		2017	Premiums	
	2016	Premiums		2018	Premiums	
	2017	Premiums		2019	7.50%	6.50%
	2018	6.5%	6.7%	2020	7.50%	6.50%
	2019	6.0%	6.1%	2021	7.25%	6.30%
	2020	5.5%	5.6%	2022	7.00%	6.10%
	2021+	5.0%	5.0%	2023	6.75%	5.90%
				2024	6.50%	5.70%
				2025	6.25%	5.50%
				2026	6.00%	5.30%
				2027	5.80%	5.15%
				2028	5.60%	5.00%
			2029	5.40%	4.85%	
			2030	5.20%	4.70%	
			2031-2035	5.05%	4.60%	
			2036-2045	4.90%	4.50%	
			2046-2055	4.75%	4.45%	
			2056-2065	4.60%	4.40%	
			2066-2075	4.30%	4.20%	
			2076+	4.00%	4.00%	



**ACTUARIAL ASSUMPTIONS**

Assumption	June 30, 2015 Valuation				June 30, 2017 Valuation				
	Age	Anthem Select		Anthem Trad		BS Access+		HN SmartCare	
■ Medical Claims Costs 2018 Calendar Year		<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
	25	\$252	\$494	\$272	\$534	\$261	\$513	\$254	\$499
	35	330	605	356	654	342	628	332	610
	45	525	635	567	686	545	659	529	640
	55	876	886	947	958	910	920	884	894
	60	1,119	1,047	1,209	1,131	1,162	1,087	1,128	1,055
	65	1,414	1,273	1,528	1,376	1,468	1,321	1,425	1,283
■ Medical Claims Costs 2018 Calendar Year		<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
	25	\$257	\$505	\$403	\$792	\$245	\$402	\$212	\$348
	35	336	617	528	969	363	559	315	483
	45	536	648	841	1,017	577	632	500	547
	55	895	905	1,404	1,420	853	825	739	714
	60	1,142	1,068	1,792	1,677	1,025	948	887	821
	65	1,443	1,299	2,265	2,039	1,273	1,145	1,102	991





**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>										
<b>■ Medical Claims</b> Costs 2018 Calendar Year	• Sample estimated monthly claims costs: Bay Area Region - Non-Medicare Eligible											
		<table border="0"> <tr> <td></td> <td align="center" colspan="2"><u>PERSCare</u></td> <td align="center" colspan="2"><u>PORAC</u></td> </tr> <tr> <td align="center"><u>Age</u></td> <td align="center"><u>M</u></td> <td align="center"><u>F</u></td> <td align="center"><u>M</u></td> <td align="center"><u>F</u></td> </tr> </table>		<u>PERSCare</u>		<u>PORAC</u>		<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
		<u>PERSCare</u>		<u>PORAC</u>								
	<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>							
		\$281	\$462	\$249	\$409							
		417	642	369	567							
		663	726	586	642							
	980	948	868	839								
	1,178	1,089	1,039	963								
	1,463	1,315	1,293	1,162								
<b>■ Mortality, Termination, Disability</b>	• CalPERS 1997-2007 Experience Study • Mortality Improvement Scale MP-2014 modified to converge to ultimate mortality improvement rates in 2022	• CalPERS 1997-2015 Experience Study • Mortality Improvement Scale 2017 for postretirement mortality										



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>				
<b>■ Service Retirement</b>	• CalPERS 1997-2011 Experience Study					
		<table border="0"> <tr> <td></td> <td align="center"><u>CalPERS</u></td> <td align="center"><u>Misc</u></td> </tr> </table>		<u>CalPERS</u>	<u>Misc</u>	
		<u>CalPERS</u>	<u>Misc</u>			
		Hired < 9/15/12	2.5%@55			
		Hired ≥ 9/15/12	2%@60			
		Hired ≥ 1/1/13				
		➤ Classic Member	2%@60			
		➤ New Member	2%@62			
		<table border="0"> <tr> <td></td> <td align="center"><u>CalPERS</u></td> <td align="center"><u>Safety</u></td> </tr> </table>		<u>CalPERS</u>	<u>Safety</u>	
		<u>CalPERS</u>	<u>Safety</u>			
	Hired < 1/1/13	3%@50				
	Hired ≥ 1/1/13					
	➤ Classic Member	3%@50				
	➤ New Member	2.7%@57				
	• CalPERS 1997-2015 Experience Study					
	<table border="0"> <tr> <td></td> <td align="center"><u>CalPERS</u></td> <td align="center"><u>Misc</u></td> </tr> </table>		<u>CalPERS</u>	<u>Misc</u>		
	<u>CalPERS</u>	<u>Misc</u>				
	Hired < 9/15/12	2.5%@55				
	Hired ≥ 9/15/12	2%@60				
	Hired ≥ 1/1/13					
	➤ Classic Member	2%@60				
	➤ New Member	2%@62				
	<table border="0"> <tr> <td></td> <td align="center"><u>CalPERS</u></td> <td align="center"><u>Safety</u></td> </tr> </table>		<u>CalPERS</u>	<u>Safety</u>		
	<u>CalPERS</u>	<u>Safety</u>				
	Hired < 1/1/13	3%@50				
	Hired ≥ 1/1/13					
	➤ Classic Member	3%@50				
	➤ New Member	2.7%@57				



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<p>■ Medical Plan at Retirement</p>	<ul style="list-style-type: none"> <li>● Participating - Current plan election except:                             <ul style="list-style-type: none"> <li>➢ Blue Shield Access+ participants assumed to participate in UnitedHealthcare when eligible for Medicare for 2017 and later years</li> <li>➢ Blue Shield NetValue participants assumed to participate in Blue Shield Access+ before eligible for Medicare and UnitedHealthcare when eligible for Medicare for 2017 and later years</li> </ul> </li> <li>● Waived - Kaiser</li> </ul>	<ul style="list-style-type: none"> <li>● Participating                             <ul style="list-style-type: none"> <li>➢ Current plan election</li> <li>➢ UnitedHealthcare when eligible for Medicare if Medicare eligible plan not available for current plan election</li> </ul> </li> <li>● Waived - Kaiser</li> </ul>



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<p>■ Participation at Retirement</p>	<ul style="list-style-type: none"> <li>● Actives:                             <ul style="list-style-type: none"> <li>➢ Insurance Pgm - 100%</li> <li>➢ Cash Alloc Pgm - 90%</li> </ul> </li> <li>● Retirees with sick leave conversion accounts will continue to participate after account exhausted</li> <li>● Waived Retirees:                             <ul style="list-style-type: none"> <li>➢ &lt; 65 - 20% elect at 65</li> <li>➢ ≥ 65 - 0%</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Actives:                             <ul style="list-style-type: none"> <li>➢ Insurance Pgm - 100%</li> <li>➢ Cash Alloc Pgm - 90%</li> </ul> </li> <li>● Retirees with sick leave conversion accounts will continue to participate after account exhausted</li> <li>● Waived Retirees:                             <ul style="list-style-type: none"> <li>➢ &lt; 65 - 20% elect at 65</li> <li>➢ ≥ 65 - 0%</li> </ul> </li> </ul>
<p>■ Retiree Coverage Election at Retirement</p>	<ul style="list-style-type: none"> <li>● Covered - based on current coverage election</li> <li>● Waived                             <ul style="list-style-type: none"> <li>➢ Single coverage if assumed not married</li> <li>➢ 2-party coverage if assumed married</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Same</li> </ul>



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<p>■ Marital Status at Retirement</p>	<ul style="list-style-type: none"> <li>• Actives:                             <ul style="list-style-type: none"> <li>➢ Married if currently elect 2-party or family coverage</li> <li>➢ Waived - 80% married</li> </ul> </li> <li>• Retirees - based on spouse information if provided</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
<p>■ Spouse Age</p>	<ul style="list-style-type: none"> <li>• Actives - males 3 years older than females</li> <li>• Retirees - males 3 years older than females if spouse birth date not provided</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
<p>■ Spouse &amp; Dependent Coverage at Retirement</p>	<ul style="list-style-type: none"> <li>• Surviving spouse coverage - 100% of married retirees elect CalPERS joint and survivor annuity</li> <li>• Family coverage:                             <ul style="list-style-type: none"> <li>➢ Current actives:                                     <ul style="list-style-type: none"> <li>- Misc - 10% until age 65</li> <li>- Safety - 25% until age 65</li> </ul> </li> <li>➢ Current retirees                                     <ul style="list-style-type: none"> <li>- Current coverage until 65</li> </ul> </li> <li>➢ No coverage after age 65</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Surviving spouse coverage - 100% of married retirees elect CalPERS joint and survivor annuity</li> <li>• Family coverage:                             <ul style="list-style-type: none"> <li>➢ Current actives:                                     <ul style="list-style-type: none"> <li>- Misc - 10% until age 65</li> <li>- Safety - 25% until age 65</li> </ul> </li> <li>➢ Current retirees                                     <ul style="list-style-type: none"> <li>- Current coverage until 65</li> </ul> </li> </ul> </li> <li>• No coverage after age 65</li> </ul>
<p>■ Medicare Eligibility</p>	<ul style="list-style-type: none"> <li>• 100% eligible for Medicare at age 65</li> <li>• Medicare eligible retirees will elect Part B coverage</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



**ACTUARIAL METHODS**

<b>Method</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
■ Cost Method	<ul style="list-style-type: none"> <li>• Entry Age Normal</li> <li>• Normal Cost is a level percentage of payroll</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
■ Actuarial Value of Assets	<ul style="list-style-type: none"> <li>• Investment gains and losses spread over a 5-year rolling period</li> <li>• Not less than 80% nor more than 120% of market value</li> <li>• Asset used are from CERBT asset statements and not from CalPERS audited CERBT assets for GASBS 75 accounting purposes</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
■ Amortization Method	<ul style="list-style-type: none"> <li>• Level percent of payroll</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



**ACTUARIAL METHODS**

<b>Method</b>	<b>June 30, 2015 Valuation</b>	<b>June 30, 2017 Valuation</b>
■ Amortization Periods	<ul style="list-style-type: none"> <li>• 30-year fixed (closed) period for 2008/09 ARC</li> <li>• 22-year fixed (closed) period for 6/30/16 projected UAAL for 2016/17 ARC</li> <li>• Amortization period decreases by one year each fiscal year</li> <li>• When amortization period reaches 15 years, experience gains and losses will be amortized over fixed (closed) 15-year periods and plan and assumption changes will be amortized over fixed (closed) 20-year periods</li> </ul>	<ul style="list-style-type: none"> <li>• 30-year fixed (closed) period for 2008/09 ARC</li> <li>• 20-year fixed (closed) period for 6/30/18 projected UAAL for 2018/19 ADC</li> <li>• Amortization period decreases by one year each fiscal year</li> <li>• When amortization period reaches 15 years, experience gains and losses will be amortized over fixed (closed) 15-year periods and plan and assumption changes will be amortized over fixed (closed) 20-year periods</li> </ul>



**ACTUARIAL METHODS**

Method	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> <li>■ Administrative Expenses</li> </ul>	<ul style="list-style-type: none"> <li>• CERBT administrative expenses reflected as a reduction to the discount rate</li> <li>• PEMHCA administrative expenses included with projected benefit payments, Actuarial Accrued Liability, and Normal Cost</li> </ul>	<ul style="list-style-type: none"> <li>• Trust administrative expenses cannot be reflected in the discount rate under GASBS 75</li> <li>• Administrative expenses cannot be included in projected benefit payments under GASBS 75</li> <li>• CERBT and PEMHCA administrative expenses added to the Normal Cost and included with the ADC</li> </ul>
<ul style="list-style-type: none"> <li>■ Implied Subsidy</li> </ul>	<ul style="list-style-type: none"> <li>• Implied subsidy estimate included for non-Medicare eligible retirees</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



**ACTUARIAL METHODS**

Method	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> <li>■ Projections</li> </ul>	<ul style="list-style-type: none"> <li>• Valuation Results - Closed group, no new hires</li> <li>• Projections                             <ul style="list-style-type: none"> <li>➢ Simplified open group projection</li> <li>➢ Total active pay increased in accordance with aggregate payroll assumption</li> <li>➢ No additional retirees from new hires over the 10-year projection period</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>



## DEFINITIONS

### ■ Actuarial Obligations

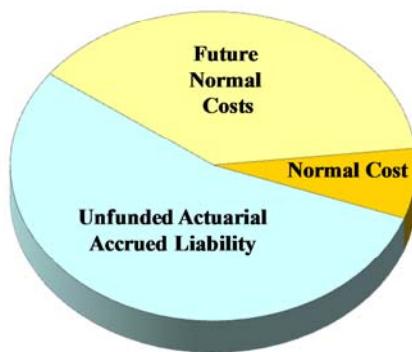
- The Present Value of Benefits (PVB) is calculated as follows:
  - Project future employer-provided retiree benefits for current retirees and current active employees (future retirees)
  - Discount projected benefits to valuation date using the discount rate
  - Discount rate is the expected long-term net rate of return on assets for benefits projected to be paid from the OPEB trust and the expected long-term net rate of return on Town investments for benefits projected to be paid from Town assets
  - Allocate the PVB to past, current, and future working periods using the Entry Age Normal Cost Method
- Normal Cost (NC) is portion of the PVB allocated to one fiscal year
- Actuarial Accrued Liability (AAL) is the portion of the PVB allocated to prior Town service, that is, the accumulation of prior years' NCs
- Unfunded AAL (UAAL) is AAL less the Actuarial Value of Assets
- Actuarial Value of Assets smooths market volatility by spreading investment gains and losses over 5 years



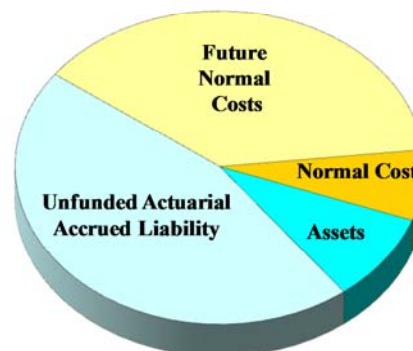
## DEFINITIONS

### Present Value of Benefits

**Present Value of Benefits  
(Without Plan Assets)**



**Present Value of Benefits  
(With Plan Assets)**



## DEFINITIONS

- |                     |   |
|---------------------|---|
| <b>■ PayGo Cost</b> | <ul style="list-style-type: none"><li>• Cash Subsidy is the Town's pay-as-you-go cash payments for its portion of retiree premiums</li><li>• Implied Subsidy is the difference between the expected cost of retiree healthcare benefits, by age and gender, and retiree premiums, that is, it is the portion of retiree healthcare costs subsidized by active employee premiums</li></ul> |
|---------------------|---|



## DEFINITIONS

- |   |   |
|---|---|
| <b>■ Terminology<br/>Used in<br/>Report</b> | <ul style="list-style-type: none"><li>• AAL - Actuarial Accrued Liability</li><li>• ADC - Actuarially Determined Contribution</li><li>• ARC - Annual Required Contribution</li><li>• AVA - Actuarial Value of Assets</li><li>• GASBS 45 - Governmental Accounting Standards Board Statement No. 45</li><li>• GASBS 75 - Governmental Accounting Standards Board Statement No. 75</li><li>• MVA - Market Value of Assets</li><li>• NC - Normal Cost</li><li>• OPEB - Other (than pensions) Postemployment Benefits</li><li>• PVB - Present Value of Benefits</li><li>• UAAL - Unfunded Actuarial Accrued Liability</li></ul> |
|---|---|

