



MARIN MUNICIPAL
WATER DISTRICT

BARTEL
ASSOCIATES, LLC

RETIREE HEALTHCARE PLAN

June 30, 2015 GASB 45 Actuarial Valuation

Doug Pryor, Vice President & Actuary

Nathan Hinojosa, Actuarial Analyst

Katherine Moore, Associate Actuary

Bartel Associates, LLC

June 8, 2016

Contents

<u>Topic</u>	<u>Page</u>
Benefit Summary	1
Implied Subsidy	3
Participant Statistics	5
Actuarial Assumption Highlights	7
Assets	9
Results	13
Actuarial Certification	25
Exhibits	
Premiums	E - 1
Data Summary	E - 4
Actuarial Assumptions	E - 13
Actuarial Methods	E - 17



BENEFIT SUMMARY

<ul style="list-style-type: none"> ■ Eligibility 	<ul style="list-style-type: none"> ■ Retire directly from District under CalPERS (10+ years of continuous District service for dental) 																
<ul style="list-style-type: none"> ■ Medical Benefit 	<ul style="list-style-type: none"> ■ District pays premium up to cap (middle cost pre-Medicare Bay Area plan): <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th style="text-align: center;">2014</th> <th style="text-align: center;">2015</th> <th style="text-align: center;">2016</th> </tr> </thead> <tbody> <tr> <td>Plan</td> <td style="text-align: center;">PERSCare</td> <td style="text-align: center;">PERSCare</td> <td style="text-align: center;">Health Net SmartCare</td> </tr> <tr> <td>Employee</td> <td style="text-align: right;">\$ 720.04</td> <td style="text-align: right;">\$ 775.08</td> <td style="text-align: right;">\$ 808.44</td> </tr> <tr> <td>2-Party</td> <td style="text-align: right;">1,440.08</td> <td style="text-align: right;">1,550.16</td> <td style="text-align: right;">1,616.88</td> </tr> </tbody> </table>		2014	2015	2016	Plan	PERSCare	PERSCare	Health Net SmartCare	Employee	\$ 720.04	\$ 775.08	\$ 808.44	2-Party	1,440.08	1,550.16	1,616.88
	2014	2015	2016														
Plan	PERSCare	PERSCare	Health Net SmartCare														
Employee	\$ 720.04	\$ 775.08	\$ 808.44														
2-Party	1,440.08	1,550.16	1,616.88														
<ul style="list-style-type: none"> ■ Dental Benefit 	<ul style="list-style-type: none"> ■ 2-Party dental coverage up to cap until age 65 ■ Cap: \$2,000 per individual covered up to total of \$4,000 																
<ul style="list-style-type: none"> ■ Surviving Spouse 	<ul style="list-style-type: none"> ■ 100% of retiree benefit continues to surviving spouse if retiree elects CalPERS survivor allowance 																
<ul style="list-style-type: none"> ■ Other OPEB 	<ul style="list-style-type: none"> ■ The District does not provide Medicare Part B Reimbursement, Non-PEMHCA Premium, Vision, and Life 																



June 8, 2016



BENEFIT SUMMARY

<ul style="list-style-type: none"> ■ Pay-As-You-Go 	<table style="margin-left: 20px;"> <thead> <tr> <th style="text-align: left;">Fiscal Year</th> <th style="text-align: left;">Amount</th> </tr> </thead> <tbody> <tr> <td>2014/15</td> <td style="text-align: right;">\$ 1,961,500</td> </tr> <tr> <td>2013/14</td> <td style="text-align: right;">1,972,800</td> </tr> <tr> <td>2012/13</td> <td style="text-align: right;">1,901,800</td> </tr> <tr> <td>2011/12</td> <td style="text-align: right;">1,728,500¹</td> </tr> <tr> <td>2010/11</td> <td style="text-align: right;">1,564,200₁</td> </tr> <tr> <td>2009/10</td> <td style="text-align: right;">1,379,700²</td> </tr> <tr> <td>2008/09</td> <td style="text-align: right;">1,419,400</td> </tr> <tr> <td>2007/08</td> <td style="text-align: right;">1,355,900</td> </tr> </tbody> </table>	Fiscal Year	Amount	2014/15	\$ 1,961,500	2013/14	1,972,800	2012/13	1,901,800	2011/12	1,728,500 ¹	2010/11	1,564,200 ₁	2009/10	1,379,700 ²	2008/09	1,419,400	2007/08	1,355,900
Fiscal Year	Amount																		
2014/15	\$ 1,961,500																		
2013/14	1,972,800																		
2012/13	1,901,800																		
2011/12	1,728,500 ¹																		
2010/11	1,564,200 ₁																		
2009/10	1,379,700 ²																		
2008/09	1,419,400																		
2007/08	1,355,900																		

¹ 2010/11 & 2011/12 pay-as-you-go cost calculated based on contribution to trust assuming full ADC funding

² Reflects CalPERS 2 month PPO premium holiday

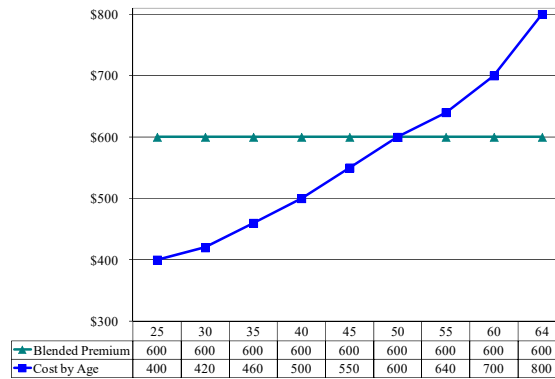


June 8, 2016

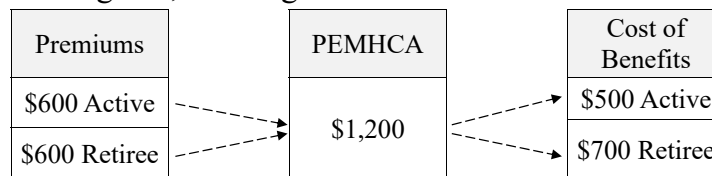


IMPLIED SUBSIDY

- PEMHCA, employer cost for allowing retirees to participate at active rates.
 - General trend:



- Sample active age 40, retire age 60:



June 8, 2016



IMPLIED SUBSIDY

Implied Subsidy

- GASB 45 defers to actuarial standards of practice.
- Previous Actuarial Standards of Practice No. 6³ (ASOP 6) allows community rated plans to value liability using premiums, resulting in no implied subsidy.
- In May 2014, Actuarial Standards Board released revised ASOP 6:
 - Requires implied subsidy valued for community rated plans such as PEMHCA.
 - Timing: effective with all valuations on or after March 31, 2015 with earlier implementation encouraged
- June 30, 2013 and June 30, 2015 valuations include the implied subsidy.

³ Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Plan Costs or Contributions.



June 8, 2016



PARTICIPANT STATISTICS

Actives

	1/1/07	1/1/09	6/30/10	6/30/12	6/30/13 ⁴	6/30/15
■ Count	255	253	254	225	225	236
■ Average:						
• Age	46.7	46.9	47.7	47.6	48.6	46.7
• Service	11.1	11.5	12.4	12.8	13.8	12.2
• CalPERS Service	11.8	12.3	13.2	13.5	14.5	13.1
• Pay	\$ 70,500	\$ 81,300	\$ 85,800	\$ 87,100	\$ 89,900	\$ 91,100
■ Total Payroll (000s)	17,967	20,581	21,789	19,600	20,234	21,494

⁴ 6/30/2012 data used for 6/30/13 valuation. Pay increased with 3.25% aggregate pay increase assumption.



June 8, 2016



PARTICIPANT STATISTICS

Retirees

	1/1/07	1/1/09	6/30/10	6/30/12	6/30/13 ⁵	6/30/15
■ Count						
• Benefitting						
> < 65	69	64	65	79	59	70
> ≥ 65	<u>93</u>	<u>105</u>	<u>110</u>	<u>124</u>	<u>144</u>	<u>151</u>
> Subtotal	162	169	175	203	203	221
• Not benefitting	<u>17</u>	<u>27</u>	<u>11</u>	<u>15</u>	<u>15</u>	<u>18</u>
• Total	179	196	186	218	218	239
■ Average						
• Age	67.6	69.1	70.0	69.9	70.9	70.8
• Retirement Age						
> Service retired	58.3	58.0	58.1	58.3	58.3	58.4
> Disabled retired	46.3	47.0	45.8	45.7	45.7	45.2

⁵ 6/30/2012 data used for 6/30/13 valuation.



June 8, 2016



ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2013 Valuation	June 30, 2015 Valuation
■ Valuation Date	<ul style="list-style-type: none"> ■ June 30, 2013 ■ 2015/16 and 2016/17 ■ GASB 45 and Funding 	<ul style="list-style-type: none"> ■ June 30, 2015 ■ 2017/18 and 2018/19 ■ Funding only
■ Funding Policy	■ Contribute full ARC (net of pay-go) to CERBT	■ Same
■ Discount Rate	■ 7.25% pre-funded with CalPERS CERBT fund #1	■ Same
■ Medical Cap Increase	■ Non-Medicare Healthcare trend	■ Same
■ Mortality, Withdrawal, Disability	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study ■ Fully-generational Scale AA mortality improvement applied to post-retirement mortality 	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study ■ Fully generational with Scale MP-2014 modified to converge to ultimate improvement rates in 2022 for pre and post-retirement mortality



June 8, 2016



ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2013 Valuation	June 30, 2015 Valuation																																																																		
■ ACA Excise Tax Load	■ n/a	■ 2% load on cash subsidy																																																																		
■ Healthcare Trend	<table border="0"> <thead> <tr> <th></th> <th colspan="2">Increase from Prior Year</th> </tr> <tr> <th>Year</th> <th>Non-Medicare</th> <th>Medicare</th> </tr> </thead> <tbody> <tr> <td>2013</td> <td colspan="2">Actual Premiums</td> </tr> <tr> <td>2014</td> <td colspan="2">Actual Premiums</td> </tr> <tr> <td>2015</td> <td colspan="2">Actual Premiums</td> </tr> <tr> <td>2016</td> <td>7.5%</td> <td>7.8%</td> </tr> <tr> <td>2017</td> <td>7.0%</td> <td>7.2%</td> </tr> <tr> <td>2018</td> <td>6.5%</td> <td>6.7%</td> </tr> <tr> <td>2019</td> <td>6.0%</td> <td>6.1%</td> </tr> <tr> <td>2020</td> <td>5.5%</td> <td>5.6%</td> </tr> <tr> <td>2021+</td> <td>5.0%</td> <td>5.0%</td> </tr> </tbody> </table>		Increase from Prior Year		Year	Non-Medicare	Medicare	2013	Actual Premiums		2014	Actual Premiums		2015	Actual Premiums		2016	7.5%	7.8%	2017	7.0%	7.2%	2018	6.5%	6.7%	2019	6.0%	6.1%	2020	5.5%	5.6%	2021+	5.0%	5.0%	<table border="0"> <thead> <tr> <th></th> <th colspan="2">Increase from Prior Year</th> </tr> <tr> <th>Year</th> <th>Non-Medicare</th> <th>Medicare</th> </tr> </thead> <tbody> <tr> <td>2013</td> <td colspan="2">n/a</td> </tr> <tr> <td>2014</td> <td colspan="2">n/a</td> </tr> <tr> <td>2015</td> <td colspan="2">Actual Premiums</td> </tr> <tr> <td>2016</td> <td colspan="2">Actual Premiums</td> </tr> <tr> <td>2017</td> <td>7.0%</td> <td>7.2%</td> </tr> <tr> <td>2018</td> <td>6.5%</td> <td>6.7%</td> </tr> <tr> <td>2019</td> <td>6.0%</td> <td>6.1%</td> </tr> <tr> <td>2020</td> <td>5.5%</td> <td>5.6%</td> </tr> <tr> <td>2021+</td> <td>5.0%</td> <td>5.0%</td> </tr> </tbody> </table>		Increase from Prior Year		Year	Non-Medicare	Medicare	2013	n/a		2014	n/a		2015	Actual Premiums		2016	Actual Premiums		2017	7.0%	7.2%	2018	6.5%	6.7%	2019	6.0%	6.1%	2020	5.5%	5.6%	2021+	5.0%	5.0%
	Increase from Prior Year																																																																			
Year	Non-Medicare	Medicare																																																																		
2013	Actual Premiums																																																																			
2014	Actual Premiums																																																																			
2015	Actual Premiums																																																																			
2016	7.5%	7.8%																																																																		
2017	7.0%	7.2%																																																																		
2018	6.5%	6.7%																																																																		
2019	6.0%	6.1%																																																																		
2020	5.5%	5.6%																																																																		
2021+	5.0%	5.0%																																																																		
	Increase from Prior Year																																																																			
Year	Non-Medicare	Medicare																																																																		
2013	n/a																																																																			
2014	n/a																																																																			
2015	Actual Premiums																																																																			
2016	Actual Premiums																																																																			
2017	7.0%	7.2%																																																																		
2018	6.5%	6.7%																																																																		
2019	6.0%	6.1%																																																																		
2020	5.5%	5.6%																																																																		
2021+	5.0%	5.0%																																																																		



June 8, 2016



ASSETS

Market Value of Plan Assets

(Amounts in 000's)

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	All
■ MVA (Beginning of Year)	\$ -	\$2,317	\$5,068	\$7,849	\$9,270	\$12,478	\$17,075	\$ -
• Employer Contribution	2,200	2,521	1,503	1,419	2,169	2,184	1,856	13,851
• Benefit Payments	-	-	-	-	-	-	-	-
• Administrative Expenses	(0)	(3)	(8)	(9)	(15)	(20)	(18)	(73)
• Investment Return	117	233	1,286	12	1,054	2,433	2	5,137
■ MVA (End of Year)	2,317	5,068	7,849	9,270	12,478	17,075	18,914	18,914
■ Approximate Annual Return	n/a	8.8%	25.2%	0.0%	11.3%	18.2%	(0.1)%	10.5% ⁶

⁶ Arithmetic average of 09/10 to 14/15 returns.



June 8, 2016



ASSETS

Actuarial Value of Plan Assets

(Amounts in 000's)

	08/09	09/10	10/11	11/12	12/13	13/14	14/15
■ AVA (Beginning of Year)	\$ -	\$ 2,229	\$ 4,725	\$ 7,006	\$ 9,028	\$11,983	\$15,486
• Employer Contribution	2,200	2,521	1,503	1,419	2,169	2,184	1,856
• Benefit Payments	-	-	-	-	-	-	-
• Credited Return	29	176	577	604	786	1,320	1,244
■ AVA (End of Year)	2,229	4,725	7,006	9,028	11,983	15,486	18,586
■ Approximate Annual Return	n/a	7.9%	12.2%	8.6%	8.6%	10.4%	7.8%

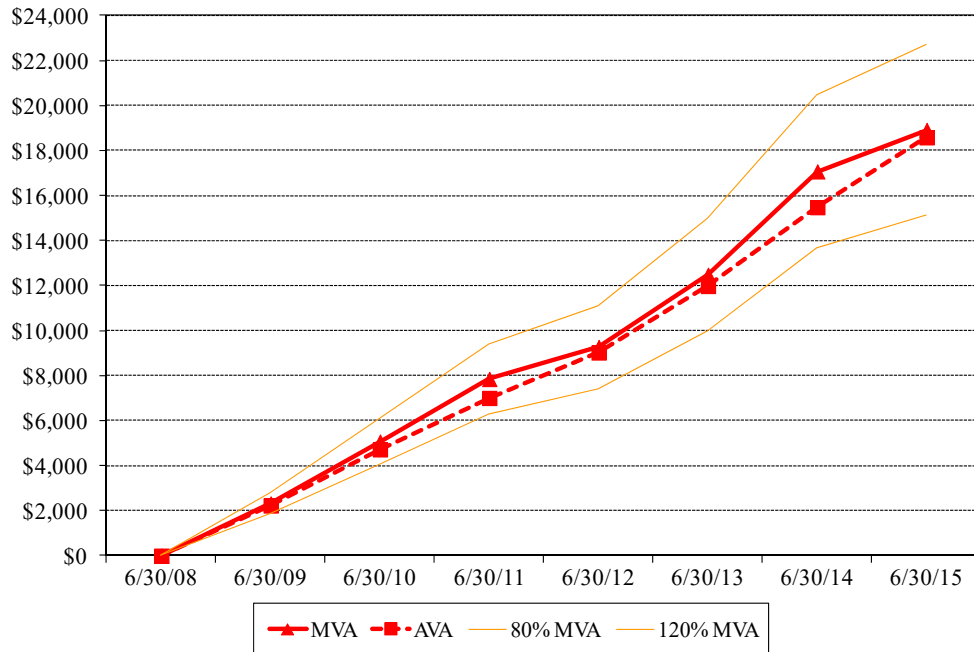


June 8, 2016



ASSETS

Historical Value of Plan Assets (Amounts in 000's)

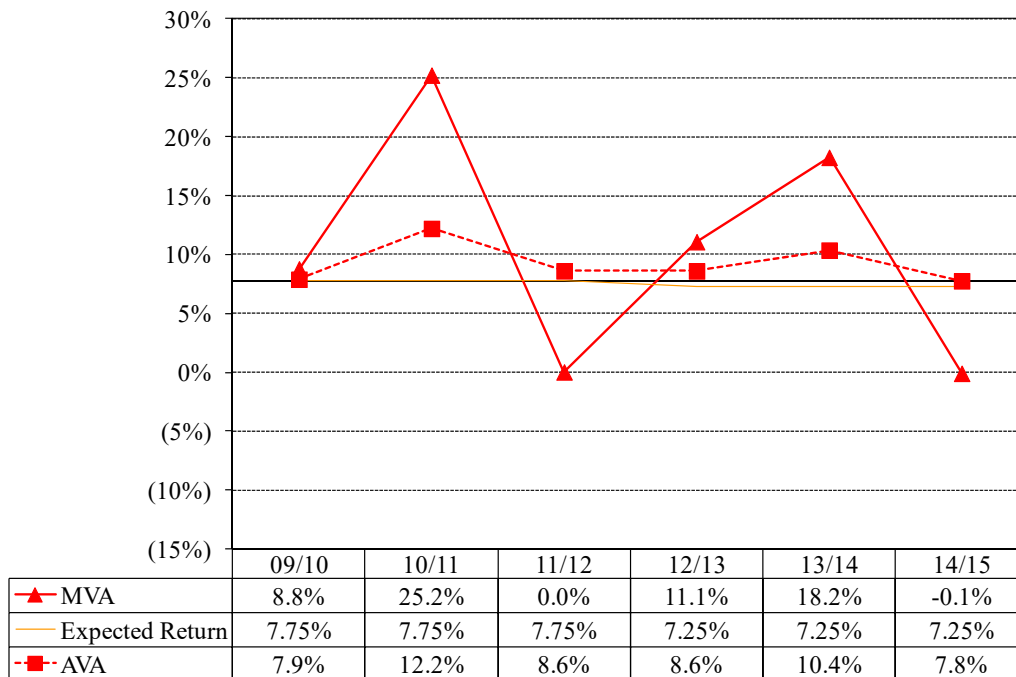


June 8, 2016



ASSETS

Historical Annualized Asset Returns



June 8, 2016



RESULTS

Actuarial Obligations

(Amounts in 000's)

	6/30/13 Valuation	6/30/15 Valuation
■ Present Value of Benefits		
• Actives	\$ 30,779	\$ 34,223
• Retirees	<u>23,472</u>	<u>29,342</u>
• Total	54,251	63,565
■ Actuarial Accrued Liability		
• Actives	21,615	23,233
• Retirees	<u>23,472</u>	<u>29,342</u>
• Total	45,087	52,575
■ Actuarial Value of Assets	<u>11,983</u>	<u>18,586</u>
■ Unfunded Liability	33,104	33,989
■ Normal Cost	1,400	1,647
■ Pay-As-You-Go Cost	2,555	3,177



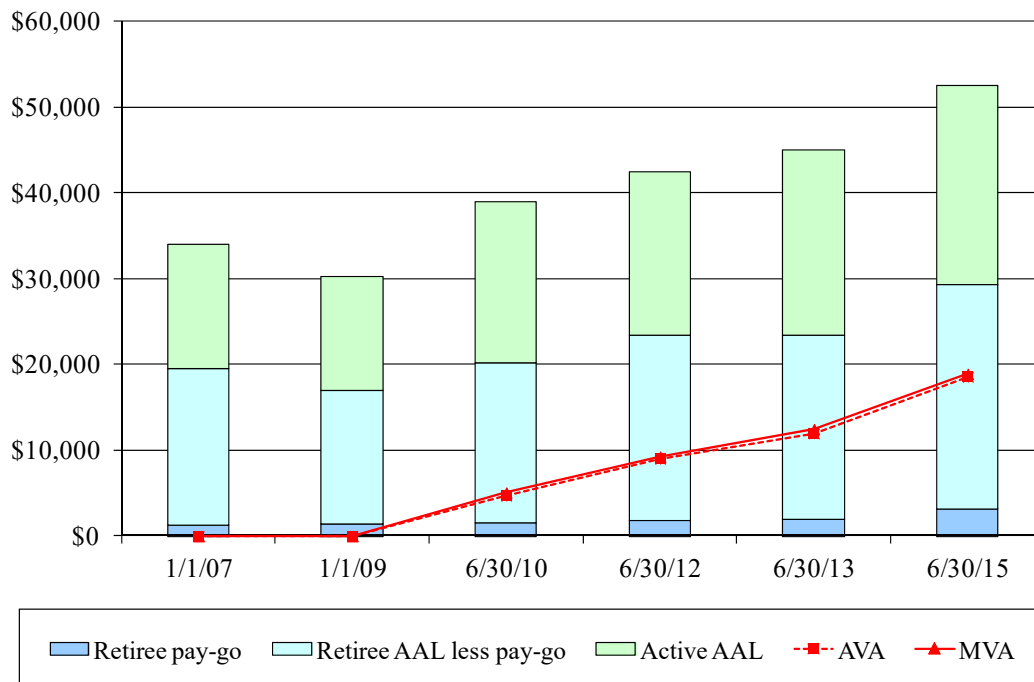
June 8, 2016



RESULTS

Historical Funded Status

(Amounts in 000's)



June 8, 2016



RESULTS

Actuarial (Gain)/Loss Analysis

(Amounts in 000's)

	AAL
■ 6/30/13 Actual	\$ 45,087
■ 6/30/15 Expected	50,041
■ Change	
• Mortality improvement	1,634
• Excise tax	871
• Premiums less than expected	(2,310)
• Implied Subsidy adjustment	2,420
• Other	(80)
■ Total Change	2,534
■ 6/30/15 Actual	52,575



June 8, 2016



RESULTS

Schedule of Funding Progress

(Amounts in 000's)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as Percentage of Covered Payroll ((b-a)/c)
6/30/2012	9,028	42,419	33,391	21.3%	21,231	157%
6/30/2013	11,983	45,087	33,104	26.6%	21,921	151%
6/30/2015	18,586	52,575	33,989	35.4%	23,659	144%



June 8, 2016



RESULTS

Actuarially Determined Contribution (ADC)

(Amounts in 000's)

	6/30/13 Valuation		6/30/15 Valuation	
	2015/16	2016/17	2017/18	2018/19
■ ADC - \$				
• Normal Cost	\$ 1,400	\$ 1,445	\$ 1,647	\$ 1,701
• UAAL Amortization	<u>2,283</u>	<u>2,357</u>	<u>2,599</u>	<u>2,683</u>
• Total ADC	3,683	3,803	4,246	4,384
■ Projected Payroll	21,921	22,634	23,659	24,427
■ ADC - % of Payroll				
• Normal Cost	6.4%	6.4%	7.0%	7.0%
• UAAL Amortization	<u>10.4%</u>	<u>10.4%</u>	<u>11.0%</u>	<u>11.0%</u>
• Total ADC	16.8%	16.8%	17.9%	17.9%



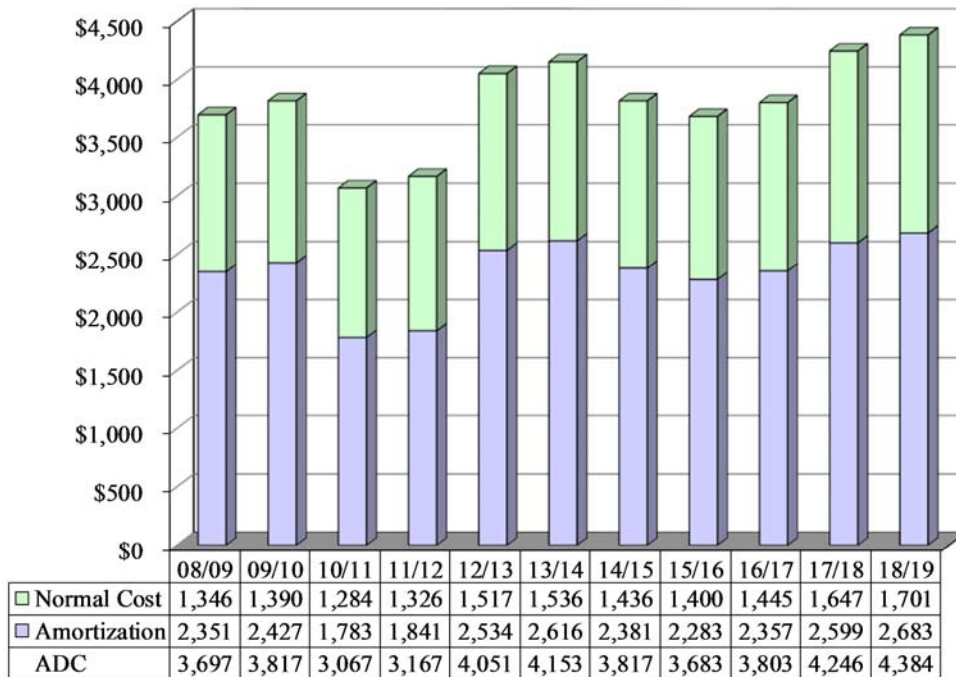
June 8, 2016



RESULTS

Actuarially Determined Contributions

(Amounts in 000's)



June 8, 2016



RESULTS

Amortization Bases

(Amounts in 000's)

	6/30/2013 Valuation		6/30/2015 Valuation	
	6/30/15	6/30/16	6/30/17	6/30/18
■ Outstanding Balance				
• Initial UAAL	\$ 30,166	\$ 30,087	\$ 29,928	\$ 29,682
• (Gain)/Loss				
> 6/30/10	6,385	6,368	6,335	6,283
> 6/30/12	(3,829)	(3,819)	(3,798)	(3,767)
> 6/30/13	(1,251)	(1,248)	(1,241)	(1,231)
> 6/30/15	-	-	2,955	2,930
• Contributions > ADC	<u>-</u>	<u>-</u>	<u>(842)</u>	<u>(837)</u>
• Total	31,472	31,389	33,336	33,060



June 8, 2016



RESULTS

Amortization Payments

(Amounts in 000's)

	6/30/2013 Valuation		6/30/2015 Valuation	
	2015/16	2016/17	2017/18	2018/19
■ Amortization Payment - \$				
• Initial UAAL	\$ 2,188	\$ 2,260	\$ 2,333	\$ 2,409
• (Gain)/Loss				
> 6/30/10	463	478	494	510
> 6/30/12	(278)	(287)	(296)	(306)
> 6/30/13	(91)	(94)	(97)	(100)
> 6/30/15	-	-	230	238
• Contributions > ADC	<u>-</u>	<u>-</u>	<u>(66)</u>	<u>(68)</u>
• Total	2,283	2,357	2,599	2,683
■ Average Amortization Years	20	19	18	17



June 8, 2016



RESULTS

Net OPEB Obligation (NOO)

(Amounts in 000's)

	CAFR		Estimated	
	2013/14	2014/15	2015/16	2016/17
■ NOO (beginning of year)	\$ -	\$ -	\$ -	\$ (361)
■ Annual OPEB Cost				
• Annual Required Contribution	4,153	3,817	3,683	3,803
• Interest on NOO	-	-	-	(26)
• Amortization of NOO	-	-	-	-
• Annual OPEB Cost	4,153	3,817	3,683	3,777
■ Contributions				
• Benefit Payments ⁷				
> Cash	1,969	1,962	2,177	2,436
> Implied Subsidy	-	-	392	421
• Trust Pre-Funding	2,184	1,856	1,475	1,400
• Total Contributions	4,153	3,817	4,044	4,257
■ NOO (end of year)	-	-	(361)	(841)

⁷ Estimated benefit payments used for 2015/16+. Actual benefit payments should be used to calculate actual NOO.



June 8, 2016



RESULTS

10-Year Projection Illustration

(Amounts in 000's)

Fiscal Year	ADC	Contribution				Total Agency Payroll	Contr % of Total Pay
		Cash BP	Implied Subsidy BP	Pre-Fund	Total Contrib		
2017/18	\$ 4,246	\$ 2,693	\$ 485	\$ 1,069	\$ 4,246	\$ 23,659	17.9%
2018/19	4,384	2,982	578	823	4,384	24,427	17.9%
2019/20	4,526	3,235	649	642	4,526	25,221	17.9%
2020/21	4,673	3,451	703	519	4,673	26,041	17.9%
2021/22	4,824	3,608	691	525	4,824	26,887	17.9%
2022/23	4,981	3,754	684	544	4,981	27,761	17.9%
2023/24	5,142	3,940	696	506	5,142	28,663	17.9%
2024/25	5,309	4,121	709	479	5,309	29,595	17.9%
2025/26	5,481	4,290	726	465	5,481	30,557	17.9%
2026/27	5,659	4,468	768	423	5,659	31,550	17.9%



June 8, 2016



RESULTS

Cash & Implied Subsidy

(Amounts in 000's)

	Cash Subsidy	Implied Subsidy	Total
■ Actuarial Accrued Liability			
• Actives	\$ 19,482	\$ 3,751	\$ 23,233
• Retirees	<u>26,226</u>	<u>3,116</u>	<u>29,342</u>
• Total	45,708	6,867	52,575
■ Actuarial Value of Assets⁸	<u>16,158</u>	<u>2,428</u>	<u>18,586</u>
■ Unfunded Actuarial Accrued Liability	29,550	4,439	33,989
■ 2017/18 ADC - \$			
• Normal Cost	1,392	255	\$1,647
• UAAL Amortization	<u>2,260</u>	<u>339</u>	<u>2,599</u>
• Total	3,652	594	4,246
■ Pay-Go	<u>2,693</u>	<u>485</u>	<u>3,177</u>
■ ADC less Pay-Go	959	109	1,068

⁸ For illustrative purposes, assets allocated on Actuarial Accrued Liability.



June 8, 2016



RESULTS

2017/18 Medical Benefit Implied Subsidy Transfer Illustration

(Amounts in 000's)

Before Implied Subsidy	Actives	Retirees	Total
■ Total Premium	4,357	3,459	\$7,816
■ Participant Contributions ⁹	<u>-</u>	<u>(766)</u>	<u>(766)</u>
■ District Contributions	4,357	2,693	7,050

After Implied Subsidy	Actives	Retirees	Total
■ Total Premium	4,357	3,459	\$7,816
■ Participant Contributions	-	(766)	(766)
■ Implied Subsidy Transfer	<u>(485)</u>	<u>485</u>	<u>-</u>
■ District Contributions	3,872	3,178	7,050

⁹ For illustrative purposes, assumes District pays full active premium of \$4,357.



June 8, 2016



ACTUARIAL CERTIFICATION

This report presents the Marin Municipal Water District Retiree Healthcare Plan ("Plan") June 30, 2015 actuarial valuation. The purpose of this valuation is to:

- Determine the Governmental Accounting Standards Board Statement Nos. 43 and 45 June 30, 2015 Benefit Obligations,
- Determine the Plan's June 30, 2015 Funded Status, and
- Calculate the 2017/18 and 2018/19 Actuarially Determined Contributions.

The report provides information intended for reporting under GASB 43 and 45, but may not be appropriate for other purposes. Information provided in this report may be useful to the District for the Plan's financial management. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, and asset information provided by the District as summarized in this report, which we relied on and 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 conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASB 43 and 45. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



Doug Pryor, ASA, EA, MAAA
Vice President
Bartel Associates, LLC
June 8, 2016



Katherine Moore, ASA, MAAA
Associate Actuary
Bartel Associates, LLC
June 8, 2016



June 8, 2016



ACTUARIAL CERTIFICATION

This page intentionally blank.



June 8, 2016



PREMIUMS

2015 PEMHCA Monthly Premiums
Bay Area

Plan	Non-Medicare Eligible			Medicare Eligible		
	Single	2-Party	Family	Single	2-Party	Family
Anthem Select	\$662.41	\$1,324.82	\$1,722.27	\$445.38	\$890.76	\$1,336.14
Anthem Traditional	827.57	1,655.14	2,151.68	445.38	890.76	1,336.14
Blue Shield Access+	928.87	1,857.74	2,415.06	352.63	705.26	1,057.89
Blue Shield NetValue	870.60	1,741.20	2,263.56	352.63	705.26	1,057.89
Kaiser	714.45	1,428.90	1,857.57	295.51	591.02	886.53
UnitedHealthcare	850.67	1,701.34	2,211.74	267.41	534.82	802.23
PERS Choice	700.84	1,401.68	1,822.18	339.47	678.94	1,018.41
PERS Select	690.43	1,380.86	1,795.12	339.47	678.94	1,018.41
PERSCare	775.08	1,550.16	2,015.21	368.76	737.52	1,106.28
PORAC	675.00	1,292.00	1,642.00	402.00	802.00	1,281.00



June 8, 2016

E-1



PREMIUMS

2016 PEMHCA Monthly Premiums
Bay Area

Plan	Non-Medicare Eligible			Medicare Eligible		
	Single	2-Party	Family	Single	2-Party	Family
Anthem Select	\$ 721.79	\$1,443.58	\$1,876.65	n/a	n/a	n/a
Anthem Traditional	855.42	1,710.84	2,224.09	n/a	n/a	n/a
Blue Shield	1,016.18	2,032.36	2,642.07	n/a	n/a	n/a
Blue Shield NetValue	1,033.86	2,067.72	2,688.04	n/a	n/a	n/a
Health Net SmartCare	808.44	1,616.88	2,101.94	n/a	n/a	n/a
Kaiser	746.47	1,492.94	1,940.82	\$297.23	\$594.46	\$891.69
UnitedHealthcare	955.44	1,910.88	2,484.14	320.98	641.96	962.94
PERS Choice	798.36	1,596.72	2,075.74	366.38	732.76	1,099.14
PERS Select	730.07	1,460.14	1,898.18	366.38	732.76	1,099.14
PERSCare	889.27	1,778.54	2,312.10	408.04	816.08	1,224.12
PORAC	699.00	1,399.00	1,789.00	442.00	881.00	1,408.00



June 8, 2016

E-2



PREMIUMS

2015 Delta Dental Premium

- \$118.17/employee/month composite rate

2016 Delta Dental Premium¹⁰

- \$118.17/employee/month composite rate

¹⁰ Assumed annual average dental claim is \$1,173 per participant



June 8, 2016

E-3



DATA SUMMARY

Medical Plan Participation June 30, 2015

Plan	Active	Retiree		
		Pre-65	Post-65	Total
Anthem Traditional	2%	-	-	-
Blue Shield	6%	20%	21%	20%
Blue Shield NetValue	4%	3%	1%	2%
Kaiser	78%	60%	43%	49%
UnitedHealthcare	-	-	-	-
PERS Choice	8%	11%	22%	19%
PERS Select	-	-	-	-
PERSCare	2%	6%	12%	10%
PORAC	-	-	1%	-
Total	100%	100%	100%	100%



June 8, 2016

E-4



DATA SUMMARY

Active Medical Plan Coverage

Plan	Region	Single	2-Party	Family	Waived	Total
Anthem Traditional	Bay Area	1	1	3	-	5
Blue Shield	Bay Area	2	6	4	-	12
Blue Shield NV	Bay Area	2	3	3	-	8
Kaiser	Bay Area	47	56	62	-	165
UnitedHealthcare	Bay Area	-	-	1	-	1
PERS Choice	Bay Area	1	5	10	-	16
PERS Select	Bay Area	-	-	1	-	1
PERSCare	Bay Area	4	1	-	-	5
Waived		-	-	-	23	23
Total		57	72	84	23	236



June 8, 2016

E-5



DATA SUMMARY

Retiree Medical Plan Coverage
Under Age 65

Plan	Region	Single	2-Party	Family	Waived	Total
Blue Shield	Bay Area	4	4	3	-	11
	Northern CA	-	1	-	-	1
	Southern CA	1	-	-	-	1
Blue Shield NV	Bay Area	-	2	-	-	2
	Southern CA	-	-	1	-	1
Kaiser	Bay Area	17	20	3	-	40
	Sacramento	-	1	-	-	1
	Southern CA	1	-	-	-	1
PERS Choice	Bay Area	1	4	1	-	6
	Out of State	-	1	1	-	2
PERSCare	Bay Area	-	1	-	-	1
	Northern CA	1	-	1	-	2
	Out of State	-	1	-	-	1
Waived		-	-	-	5	5
Total		25	35	10	5	75



June 8, 2016

E-6



DATA SUMMARY

Retiree Medical Plan Coverage
Over Age 65

Plan	Region	Single	2-Party	Family	Waived	Total
Blue Shield	Bay Area	12	15	-	-	27
	Northern CA	1	2	-	-	3
	Southern CA	1	-	-	-	1
Blue Shield NV	Bay Area	-	2	-	-	2
Kaiser	Bay Area	26	32	1	-	59
	Out of State	-	1	-	-	1
	Sacramento	1	2	1	-	4
	Southern CA	-	2	-	-	2
PERS Choice	Bay Area	5	9	-	-	14
	Northern CA	2	2	-	-	4
	Sacramento	-	1	-	-	1
	Southern CA	1	-	-	-	1
	Out of State	4	9	-	-	13
PERSCare	Bay Area	4	6	-	-	10
	Northern CA	-	1	-	-	1
	Out of State	2	4	1	-	7
PORAC		1	-	-	-	1
Waived		-	-	-	13	13
Total		60	88	3	13	164



June 8, 2016

E-7



DATA SUMMARY

Actives by Age and Service

Age	District Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	3	4	-	-	-	-	-	7
25-29	4	10	2	-	-	-	-	16
30-34	3	2	8	2	-	-	-	15
35-39	4	9	8	6	1	-	-	28
40-44	-	3	9	9	3	2	-	26
45-49	2	4	7	13	6	8	2	42
50-54	1	2	4	10	12	6	7	42
55-59	-	2	6	10	10	8	8	44
60-64	-	-	2	7	3	1	1	14
≥ 65	-	-	1	-	-	-	1	2
Total	17	36	47	57	35	25	19	236



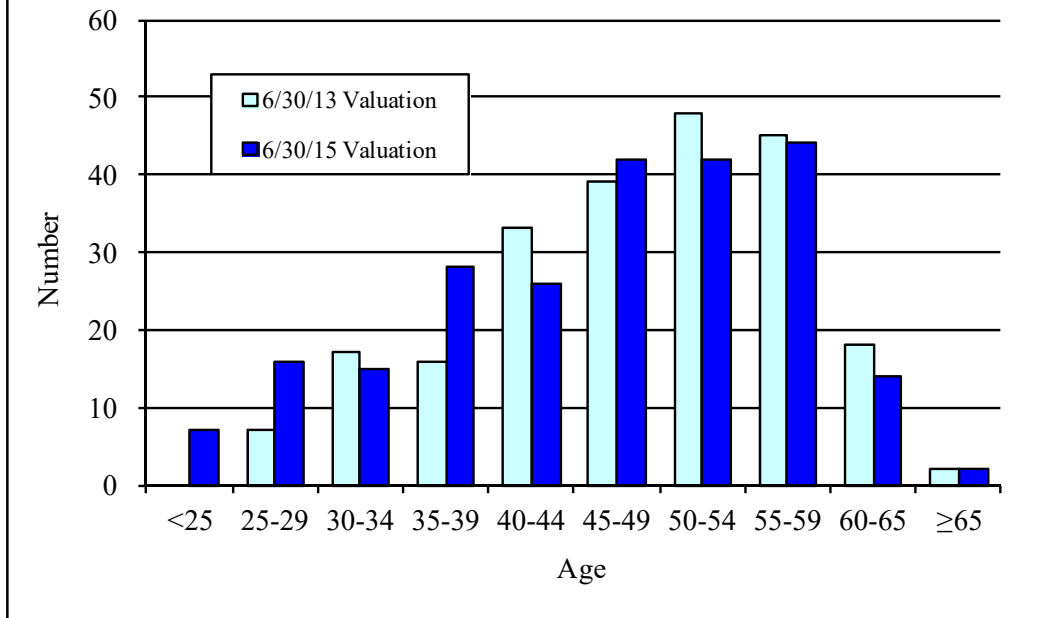
June 8, 2016

E-8



DATA SUMMARY

Active Age Distribution



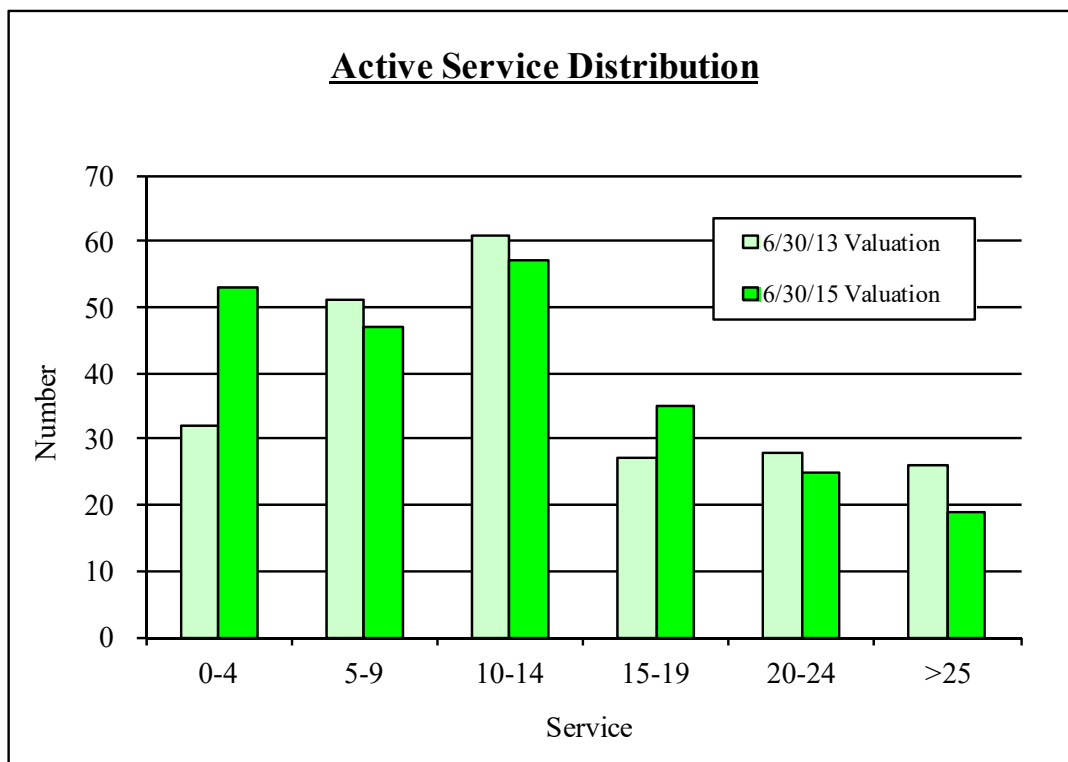
June 8, 2016

E-9



DATA SUMMARY

Active Service Distribution



June 8, 2016

E-10



DATA SUMMARY

Retiree Medical Coverage by Age Group

Age	Single	2-Party	Family	Waived	Total
Under 50	-	1	-	-	1
50-54	1	3	2	-	6
55-59	12	14	3	2	31
60-64	12	17	5	3	37
65-69	22	27	-	2	51
70-74	11	20	2	2	35
75-79	9	21	1	2	33
80-84	10	12	-	2	24
85 & Over	8	8	-	5	21
Total < 65	25	35	10	5	75
Total ≥ 65	60	88	3	13	164
Total	85	123	13	18	239
Average Age	71.6	70.4	63.1	75.9	70.8



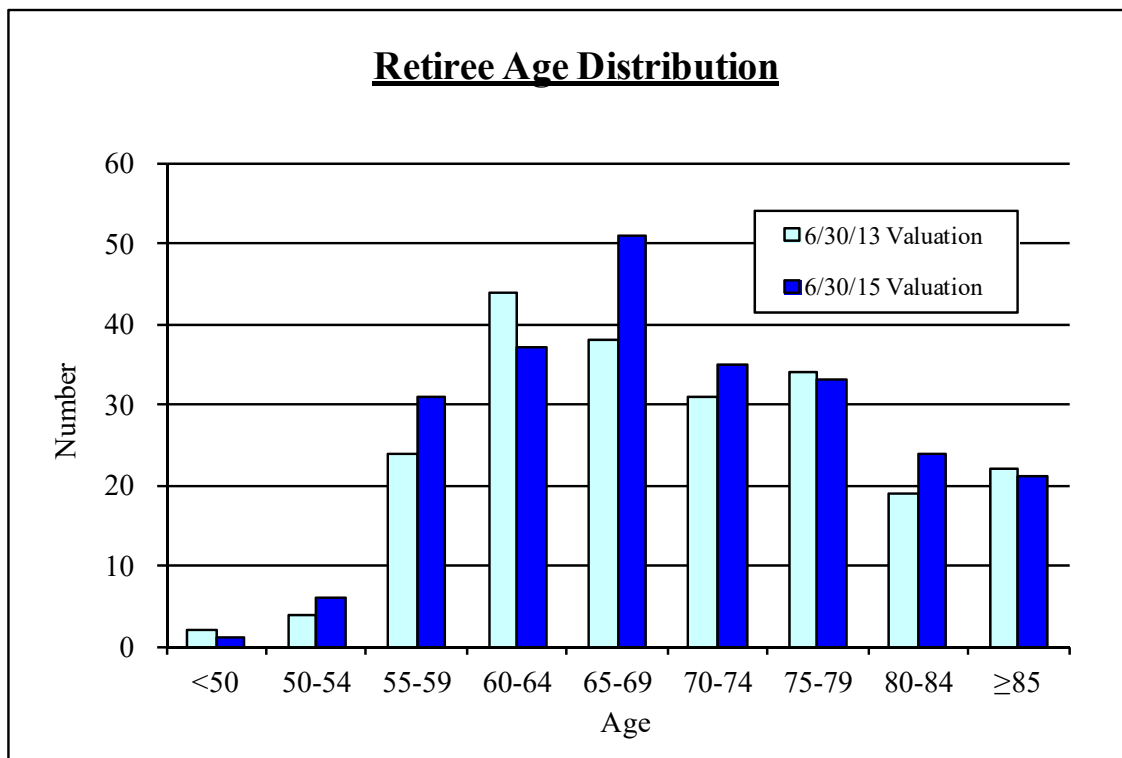
June 8, 2016

E-11



DATA SUMMARY

Retiree Age Distribution



June 8, 2016

E-12



ACTUARIAL ASSUMPTIONS

	June 30, 2013 Valuation	June 30, 2015 Valuation
■ Funding Policy	■ Full pre-funding in CalPERS OPEB Trust (CERBT)	■ Same
■ Payroll Increases	■ Aggregate increase: 3.25% ■ Merit increase: CalPERS 1997-2011 Experience Study	■ Same
■ General Inflation	■ 3.00%	■ Same
■ Dental Trend	■ 4.00% per year	■ Same
■ Medical Plan at Retirement	■ Medical plan at 65 consistent with current elections for retirees over 65	■ Same
■ Dental Cap Increase	■ None	■ Same



June 8, 2016

E-13



ACTUARIAL ASSUMPTIONS

	June 30, 2013 Valuation	June 30, 2015 Valuation
■ Retirement	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study ■ Hire Age: 34.8 ■ Miscellaneous: 2.7% @ 55 ■ Expected Ret Age: 57.9 	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study <li style="padding-left: 20px;"><u>Classic Members</u> <li style="padding-left: 20px;">Benefit Misc. 2.7%@55 <li style="padding-left: 20px;">HA 34.0 <li style="padding-left: 20px;">ERA 57.8 <li style="padding-left: 20px;"><u>New Members</u> <li style="padding-left: 20px;">Benefit Misc. 2%@62 <li style="padding-left: 20px;">HA 30.9 <li style="padding-left: 20px;">ERA 60.6
■ Medical Participation at Retirement	<ul style="list-style-type: none"> ■ Currently covered: 100% ■ Currently waived: 50% 	■ Same
■ Waived Retiree Re-election	■ 10% are assumed to elect at age 65	■ Same



June 8, 2016

E-14



ACTUARIAL ASSUMPTIONS

	June 30, 2013 Valuation	June 30, 2015 Valuation
■ Marital Status	<ul style="list-style-type: none"> ■ Currently covered: current marital status ■ Not currently covered: 80% married 	■ Same
■ Medicare Eligible Rate	<ul style="list-style-type: none"> ■ 100% ■ Everyone eligible for Medicare will elect Part B coverage 	■ Same
■ Spouse Age	<ul style="list-style-type: none"> ■ Actives: Males 3 years older than females ■ Retirees: Males 3 years older than females if spouse birth date not provided 	■ Same
■ Dependents	<ul style="list-style-type: none"> ■ Actives: 20% have family coverage < 65 ■ Dental coverage: 2 children 	■ Same



June 8, 2016

E-15



ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation																																																								
■ Sample HMO Medical Claims Costs: 2016	<ul style="list-style-type: none"> ■ Sample monthly claims costs <li align="center">Bay Area Region - Non-Medicare Eligible <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th align="center" colspan="2"><u>BS Access+</u></th> <th align="center" colspan="2"><u>BS NetValue</u></th> <th align="center" colspan="2"><u>Kaiser</u></th> </tr> <tr> <th><u>Age</u></th> <th><u>M</u></th> <th><u>F</u></th> <th><u>M</u></th> <th><u>F</u></th> <th><u>M</u></th> <th><u>F</u></th> </tr> </thead> <tbody> <tr><td>25</td><td>\$298</td><td>\$587</td><td>\$328</td><td>\$645</td><td>\$246</td><td>\$483</td></tr> <tr><td>35</td><td>391</td><td>718</td><td>430</td><td>789</td><td>322</td><td>591</td></tr> <tr><td>45</td><td>623</td><td>753</td><td>685</td><td>828</td><td>513</td><td>620</td></tr> <tr><td>55</td><td>1,040</td><td>1,052</td><td>1,143</td><td>1,156</td><td>856</td><td>866</td></tr> <tr><td>60</td><td>1,328</td><td>1,242</td><td>1,460</td><td>1,366</td><td>1,093</td><td>1,023</td></tr> <tr><td>65</td><td>1,678</td><td>1,510</td><td>1,844</td><td>1,661</td><td>1,381</td><td>1,244</td></tr> </tbody> </table> 		<u>BS Access+</u>		<u>BS NetValue</u>		<u>Kaiser</u>		<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	25	\$298	\$587	\$328	\$645	\$246	\$483	35	391	718	430	789	322	591	45	623	753	685	828	513	620	55	1,040	1,052	1,143	1,156	856	866	60	1,328	1,242	1,460	1,366	1,093	1,023	65	1,678	1,510	1,844	1,661	1,381	1,244
	<u>BS Access+</u>		<u>BS NetValue</u>		<u>Kaiser</u>																																																				
<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>																																																			
25	\$298	\$587	\$328	\$645	\$246	\$483																																																			
35	391	718	430	789	322	591																																																			
45	623	753	685	828	513	620																																																			
55	1,040	1,052	1,143	1,156	856	866																																																			
60	1,328	1,242	1,460	1,366	1,093	1,023																																																			
65	1,678	1,510	1,844	1,661	1,381	1,244																																																			
■ Sample PPO Medical Claims Costs: 2016	<ul style="list-style-type: none"> ■ Sample monthly claims costs <li align="center">Bay Area Region - Non-Medicare Eligible <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th align="center" colspan="2"><u>PERS Choice</u></th> <th align="center" colspan="2"><u>PERS Select</u></th> <th align="center" colspan="2"><u>PERSCare</u></th> </tr> <tr> <th><u>Age</u></th> <th><u>M</u></th> <th><u>F</u></th> <th><u>M</u></th> <th><u>F</u></th> <th><u>M</u></th> <th><u>F</u></th> </tr> </thead> <tbody> <tr><td>25</td><td>\$244</td><td>\$401</td><td>\$216</td><td>\$354</td><td>\$284</td><td>\$466</td></tr> <tr><td>35</td><td>363</td><td>557</td><td>320</td><td>492</td><td>421</td><td>647</td></tr> <tr><td>45</td><td>576</td><td>631</td><td>508</td><td>557</td><td>668</td><td>732</td></tr> <tr><td>55</td><td>851</td><td>823</td><td>752</td><td>727</td><td>988</td><td>955</td></tr> <tr><td>60</td><td>1,023</td><td>946</td><td>903</td><td>835</td><td>1,187</td><td>1,097</td></tr> <tr><td>65</td><td>1,270</td><td>1,142</td><td>1,121</td><td>1,008</td><td>1,474</td><td>1,325</td></tr> </tbody> </table> 		<u>PERS Choice</u>		<u>PERS Select</u>		<u>PERSCare</u>		<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	25	\$244	\$401	\$216	\$354	\$284	\$466	35	363	557	320	492	421	647	45	576	631	508	557	668	732	55	851	823	752	727	988	955	60	1,023	946	903	835	1,187	1,097	65	1,270	1,142	1,121	1,008	1,474	1,325
	<u>PERS Choice</u>		<u>PERS Select</u>		<u>PERSCare</u>																																																				
<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>																																																			
25	\$244	\$401	\$216	\$354	\$284	\$466																																																			
35	363	557	320	492	421	647																																																			
45	576	631	508	557	668	732																																																			
55	851	823	752	727	988	955																																																			
60	1,023	946	903	835	1,187	1,097																																																			
65	1,270	1,142	1,121	1,008	1,474	1,325																																																			



June 8, 2016

E-16



ACTUARIAL METHODS

	June 30, 2013 Valuation	June 30, 2015 Valuation
■ Cost Method	■ Entry Age Normal	■ Same
■ Amortization Method	■ Level percentage of payroll	■ Same
■ Actuarial Value of Assets	<ul style="list-style-type: none"> ■ Investment gains/losses spread over a 5-year rolling period ■ Not less than 80% nor more than 120% of market value 	■ Same
■ Unfunded Liability Amortization	■ Unfunded liability amortized over 20-year period commencing 2015/16	■ Unfunded liability amortized over 18-year period commencing 2017/18



June 8, 2016

