

**CITY OF NOVATO  
RETIREE HEALTHCARE PLAN**

**January 1, 2012 GASB 45 Actuarial Valuation  
Final Results**

*Presented by* **John E. Bartel, President**  
*Prepared by* Bianca Lin, Assistant Vice President & Actuary  
Harish Ganesan, Actuarial Analyst  
Adam Zimmerer Actuarial Analyst  
**Bartel Associates, LLC**

October 4, 2013

**CONTENTS**

<u>Topic</u>	<u>Page</u>
Benefit Summary	1
Data Summary	5
Actuarial Assumptions Highlights	9
Actuarial Methods	12
PARS Funding Options	13
Results	15
Actuarial Certification	29
Exhibits	30



## BENEFIT SUMMARY

<p>■ Eligibility</p>	<ul style="list-style-type: none"> <li>Retire directly from the City under CalPERS (age 50 and 5 years of CalPERS service or disability)</li> <li>Part time employees not eligible</li> </ul>						
<p>■ Retiree Medical Benefit</p>	<ul style="list-style-type: none"> <li>City contributes the PEMHCA minimum monthly amount: <table style="margin-left: 40px; border: none;"> <tr> <td style="padding-right: 20px;">2012</td> <td>\$ 112.00</td> </tr> <tr> <td>2013</td> <td>115.00</td> </tr> <tr> <td>2014</td> <td>119.00</td> </tr> </table> </li> </ul>	2012	\$ 112.00	2013	115.00	2014	119.00
2012	\$ 112.00						
2013	115.00						
2014	119.00						
<p>■ Post-Retirement Health Benefits Contribution</p>	<ul style="list-style-type: none"> <li>City contributes the following to individual accounts for post retirement health benefits: <table style="margin-left: 40px; border: none;"> <thead> <tr> <th style="text-align: center;"><u>Unit</u></th> <th style="text-align: center;"><u>Monthly Amount</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">\$150</td> </tr> <tr> <td style="text-align: center;">B</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> </li> <li>Unit H employees contribute \$75 per month</li> <li>Contributions are made to individual accounts and therefore not included in valuation</li> </ul>	<u>Unit</u>	<u>Monthly Amount</u>	A	\$150	B	100
<u>Unit</u>	<u>Monthly Amount</u>						
A	\$150						
B	100						
<p>■ Survivor Medical Benefit</p>	<ul style="list-style-type: none"> <li>100% of retiree medical benefit continues to surviving spouse of retirees who electing CalPERS joint &amp; survivor payment option</li> </ul>						

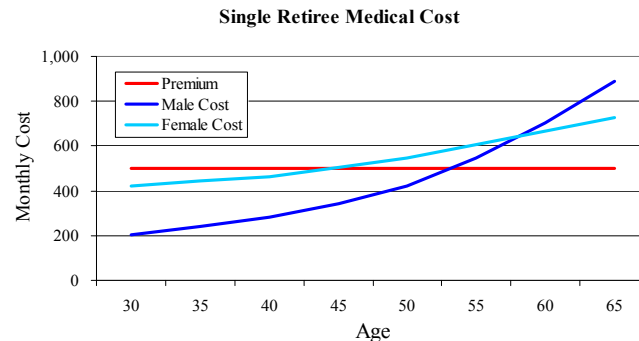
## BENEFIT SUMMARY

<p>■ Other OPEB</p>	<ul style="list-style-type: none"> <li>No contribution for dental, vision, life, or Medicare Part B</li> </ul>												
<p>■ Pay-As-You-Go Costs</p>	<table style="margin-left: 40px; border: none;"> <thead> <tr> <th style="text-align: center;"><u>Year</u></th> <th style="text-align: center;"><u>Payment</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2012/13</td> <td style="text-align: center;">\$74,322</td> </tr> <tr> <td style="text-align: center;">2011/12</td> <td style="text-align: center;">72,080</td> </tr> <tr> <td style="text-align: center;">2010/11</td> <td style="text-align: center;">62,634</td> </tr> <tr> <td style="text-align: center;">2009/10</td> <td style="text-align: center;">55,318</td> </tr> <tr> <td style="text-align: center;">2008/09</td> <td style="text-align: center;">47,443</td> </tr> </tbody> </table>	<u>Year</u>	<u>Payment</u>	2012/13	\$74,322	2011/12	72,080	2010/11	62,634	2009/10	55,318	2008/09	47,443
<u>Year</u>	<u>Payment</u>												
2012/13	\$74,322												
2011/12	72,080												
2010/11	62,634												
2009/10	55,318												
2008/09	47,443												

## BENEFIT SUMMARY

### ■ Implied Subsidy

- Non-Medicare eligible retirees pay active medical rates instead of actual cost
- Active employee premiums subsidize non-Medicare eligible retiree medical cost



- GASB 45 requires including active “implied subsidy” with retiree cost
- Community rated plans not required to value implied subsidy
- PEMHCA is a community rated plan for most employers
- Valuation does not include implied subsidy

## BENEFIT SUMMARY

### ■ Implied Subsidy (Continued)

- GASB 45 defers to Actuarial Standards of Practice (ASOP) for implied subsidy
- In April 2013, American Academy of Actuaries’ Actuarial Standards Board released 2<sup>nd</sup> exposure draft of revised ASOP No. 6 regarding retiree healthcare obligations
- Revised ASOP would require implied subsidy be valued for community-rated plans
- Timing:
  - Comments due by August 30, 2013
  - ASOPs generally effective 1 year after final statement adopted by ASB with earlier implementation encouraged
- Implied Subsidy impact depends on a number of factors including:
  - CalPERS provided information
  - Miscellaneous/Safety mix
  - Active/retiree proportions
  - Level of pre-funding
- AAL/ARC increase relative to current plan likely very large

**DATA SUMMARY**

**Participant Statistics**  
**January 1, 2012**

	<b>Misc.</b>	<b>Safety</b>	<b>Total</b>
<b>■ Actives</b>			
• Count	123	56	179
• Average age	49.5	38.5	46.0
• Average City service	12.3	9.9	11.5
• Average CalPERS service	13.4	10.9	12.6
• Average pay	\$ 63,178	\$ 82,605	\$ 69,256
• Total payroll (000's) <sup>1</sup>	7,771	4,626	12,397
<b>■ Retirees</b>			
• Count	98	45	143
• Average age	68.5	61.0	66.1
• Average retirement age <sup>2</sup>	60.1	47.5	55.9

<sup>1</sup> 2011 calendar year reported payroll

<sup>2</sup> Excludes 7 surviving spouses

**DATA SUMMARY**

**Participant Statistics**  
**January 1, 2010**

	<b>Misc.</b>	<b>Safety</b>	<b>Total</b>
<b>■ Actives</b>			
• Count	151	58	209
• Average age	48.4	38.4	45.7
• Average City service	10.4	10.0	10.3
• Average CalPERS service	11.6	11.1	11.5
• Average pay	\$ 68,311	\$ 97,552	\$ 76,426
• Total payroll (000's) <sup>3</sup>	10,315	5,658	15,973
<b>■ Retirees</b>			
• Count	84	40	124
• Average age	67.7	59.7	65.1
• Average retirement age <sup>4</sup>	59.7	46.7	55.5

<sup>3</sup> 2009/10 reported payroll

<sup>4</sup> Excludes 2 surviving spouses

**DATA SUMMARY**

**Participant Reconciliation**

<b>Participants</b>	<b>Actives</b>	<b>Retirees</b>	<b>Total</b>
■ January 1, 2010	209	124	333
• Death/withdrawal	(29)	(3)	(32)
• New Retirees	(15)	15	-
• New Survivor	-	-	-
• New Hires	13	-	13
• Data Corrections	1	7	8
■ January 1, 2012	179	143	322

**DATA SUMMARY**

**This page intentionally blank**



**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>
■ Valuation Date	<ul style="list-style-type: none"> <li>• January 1, 2010</li> <li>• 2010/11 and 2011/12 ARCs</li> </ul>	<ul style="list-style-type: none"> <li>• January 1, 2012</li> <li>• 2012/13 and 2013/14 ARCs</li> </ul>
■ Discount Rate	<ul style="list-style-type: none"> <li>• 4.50% Not pre-funded</li> <li>• 7.25% For sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>• 6.25% Full ARC pre-funded with PARS moderate OPEB trust</li> <li>• Sensitivity:                             <ul style="list-style-type: none"> <li>➢ 4.50% (not pre-funded)</li> <li>➢ 7.25% (full ARC pre-funded)</li> </ul> </li> </ul>
■ Funding Policy	<ul style="list-style-type: none"> <li>• Pay as you go</li> </ul>	<ul style="list-style-type: none"> <li>• Full ARC pre-funded with PARS moderate OPEB trust</li> </ul>
■ Mortality, Termination, Disability	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> </ul>	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> <li>• Generational Mortality Projection - Scale AA</li> </ul>



**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>																											
■ Service Retirement	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> </ul> <table border="0"> <tr> <td></td> <td align="center"><u>Level</u></td> <td align="center"><u>ERA</u></td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">≈ 59.4</td> </tr> <tr> <td>Safety</td> <td align="center">3%@55</td> <td align="center">≈ 56.0</td> </tr> <tr> <td></td> <td></td> <td align="center">(Police)</td> </tr> </table>		<u>Level</u>	<u>ERA</u>	Misc	2%@55	≈ 59.4	Safety	3%@55	≈ 56.0			(Police)	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> </ul> <table border="0"> <tr> <td></td> <td align="center"><u>Level</u></td> <td align="center"><u>ERA</u></td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">≈ 59.5</td> </tr> <tr> <td>Safety</td> <td align="center">3%@55</td> <td align="center">≈ 56.0</td> </tr> <tr> <td></td> <td></td> <td align="center">(Police)</td> </tr> </table>		<u>Level</u>	<u>ERA</u>	Misc	2%@55	≈ 59.5	Safety	3%@55	≈ 56.0			(Police)			
	<u>Level</u>	<u>ERA</u>																											
Misc	2%@55	≈ 59.4																											
Safety	3%@55	≈ 56.0																											
		(Police)																											
	<u>Level</u>	<u>ERA</u>																											
Misc	2%@55	≈ 59.5																											
Safety	3%@55	≈ 56.0																											
		(Police)																											
■ PEMHCA Minimum Increase	<table border="0"> <tr> <td></td> <td align="center"><u>Year</u></td> <td align="center"><u>Amount</u></td> </tr> <tr> <td></td> <td align="center">2011</td> <td align="center">\$108.00</td> </tr> <tr> <td></td> <td align="center">2012</td> <td align="center">112.00</td> </tr> <tr> <td></td> <td align="center">2013+</td> <td align="center">4.5%/yr</td> </tr> </table>		<u>Year</u>	<u>Amount</u>		2011	\$108.00		2012	112.00		2013+	4.5%/yr	<table border="0"> <tr> <td></td> <td align="center"><u>Year</u></td> <td align="center"><u>Amount</u></td> </tr> <tr> <td></td> <td align="center">2012</td> <td align="center">\$112.00</td> </tr> <tr> <td></td> <td align="center">2013</td> <td align="center">115.00</td> </tr> <tr> <td></td> <td align="center">2014</td> <td align="center">119.00</td> </tr> <tr> <td></td> <td align="center">2015+</td> <td align="center">4.5%/yr</td> </tr> </table>		<u>Year</u>	<u>Amount</u>		2012	\$112.00		2013	115.00		2014	119.00		2015+	4.5%/yr
	<u>Year</u>	<u>Amount</u>																											
	2011	\$108.00																											
	2012	112.00																											
	2013+	4.5%/yr																											
	<u>Year</u>	<u>Amount</u>																											
	2012	\$112.00																											
	2013	115.00																											
	2014	119.00																											
	2015+	4.5%/yr																											
■ PEMHCA Administrative Fee	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• 0.25% of premium for 2012/13+</li> </ul>																											



## ACTUARIAL ASSUMPTIONS HIGHLIGHTS

Assumption	January 1, 2010 Valuation	January 1, 2012 Valuation
<ul style="list-style-type: none"> <li>■ Participation</li> </ul>	<ul style="list-style-type: none"> <li>• Actives:                             <ul style="list-style-type: none"> <li>➢ Currently covered: 60%</li> <li>➢ Currently waived: 20%</li> </ul> </li> <li>• Retirees:                             <ul style="list-style-type: none"> <li>➢ Currently covered: 100%</li> <li>➢ Currently waived: 20% waived retirees elect coverage at 65</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Same<sup>5</sup></li> </ul>

<sup>5</sup> Based on current experience of retirees who retired since 2007

## ACTUARIAL METHODS

Method	January 1, 2010 Valuation	January 1, 2012 Valuation
■ Cost Method	<ul style="list-style-type: none"> <li>• Entry Age Normal</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
■ Funding Policy	<ul style="list-style-type: none"> <li>• Pay-As-You-Go</li> </ul>	<ul style="list-style-type: none"> <li>• Full ARC pre-funding</li> </ul>
■ Plan Assets	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None as of valuation date</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>
■ Amortization Periods	<ul style="list-style-type: none"> <li>• Initial UAAL – 30 year fixed (closed) period</li> <li>• 28-year fixed (closed) period fresh start for 2010/11 ARC</li> </ul>	<ul style="list-style-type: none"> <li>• 26-year fixed (closed) period fresh start for 2012/13 ARC</li> </ul>

**PARS FUNDING OPTIONS**

**PARS Fund Options**<sup>6</sup>

	<b>Moderately Aggressive</b>	<b>Moderate</b>	<b>Moderately Conservative</b>	<b>Conservative</b>
<b>■ Target Allocation</b> <ul style="list-style-type: none"> <li>• Equity</li> <li>• Fixed Income</li> <li>• Cash</li> <li>• Total</li> </ul>	60% 35% 5% <u>100%</u>	50% 45% 5% <u>100%</u>	30% 65% 5% <u>100%</u>	15% 80% 5% <u>100%</u>
<b>■ Median Return</b>	6.88%	6.48%	5.67%	5.00%
<b>■ Discount Rate</b> <ul style="list-style-type: none"> <li>• 50% Confidence Level</li> <li>• 55% Confidence Level</li> <li>• 60% Confidence Level</li> </ul>	7.00% 6.50% 6.25%	6.50% 6.25% 6.00%	5.75% 5.50% 5.25%	5.00% 4.75% 4.50%

<sup>6</sup> City selected to pre-fund with moderate portfolio

**PARS FUNDING OPTIONS**

**This page intentionally blank**





**RESULTS**

**Actuarial Obligations**

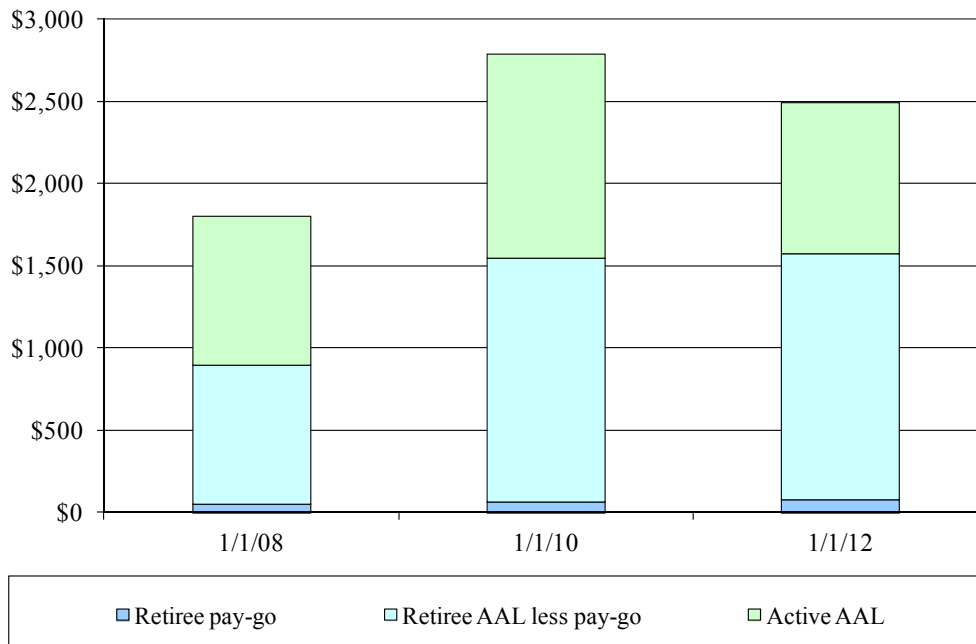
(Amounts in 000's)

Actuarial Obligations	1/1/2008	1/1/2010	1/1/2012	Proj. 6/30/12
<b>Discount Rate</b>	<b>5.00%</b>	<b>4.50%</b>	<b>6.25%</b>	<b>6.25%</b>
<b>■ Present Value of Projected Benefits</b>				
• Actives	\$ n/a	\$ 2,695	\$ 1,746	
• Retirees	<u>898</u>	<u>1,547</u>	<u>1,571</u>	
• Total	n/a	4,242	3,317	
<b>■ Actuarial Accrued Liability</b>				
• Actives	905	1,239	925	
• Retirees	<u>898</u>	<u>1,547</u>	<u>1,571</u>	
• Total	1,803	2,786	2,496	\$ 2,582
<b>■ Actuarial Assets</b>				
	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>■ Unfunded Actuarial Accrued Liability</b>				
	1,803	2,786	2,496	2,582
<b>■ Normal Cost</b>				
	117	152		96
<b>■ Pay-As-You-Go Cost</b>				
	47	63		74

**RESULTS**

**Historical Actuarial Accrued Liability**

(Amounts in 000's)



**RESULTS**

**Actuarial Gain/Loss Analysis**

(Amounts in 000's)

	<b>AAL</b>	<b>(Assets)</b>	<b>UAAL</b>
■ Actual @ 1/1/2010	\$ 2,786	\$ -	\$ 2,786
■ Expected @ 6/30/2012	3,334	(451)	2,883
■ Assumption changes			
• Discount Rate 4.5% → 6.25%	(803)		(803)
• Scale AA	158		158
• PEMHCA Administrative Fee	34		34
■ Experience (gains)/losses			
• PEMHCA minimum increased less than expected	(91)		(91)
• Contribution loss		451	451
• Demographic & other	(50)		(50)
■ Total changes	(752)	451	(301)
■ Projected @ 6/30/2012	2,582	-	2,582

**RESULTS**

**This page intentionally blank**



## RESULTS

### Annual Required Contribution (ARC)

(Amounts in 000's)

Annual Required Contribution	1/1/2010 Valuation		1/1/2012 Valuation	
	2010/11	2011/12	2012/13	2013/14
■ <b>ARC - \$</b>				
• Normal Cost	\$ 152	\$ 157	\$ 96	\$ 99
• UAAL Amortization	<u>126</u>	<u>140</u>	<u>148</u>	<u>154</u>
• ARC	278	297 <sup>7</sup>	244	253
■ <b>Projected Payroll</b>	15,730	14,138	12,800	13,216
■ <b>ARC - %</b>				
• Normal Cost	1.0%	1.1%	0.7%	0.7%
• UAAL Amortization	<u>0.8%</u>	<u>1.0%</u>	<u>1.2%</u>	<u>1.2%</u>
• ARC	1.8%	2.1%	1.9%	1.9%

<sup>7</sup> From 1/1/10 valuation report (CAFR listed \$300,000)



October 4, 2013

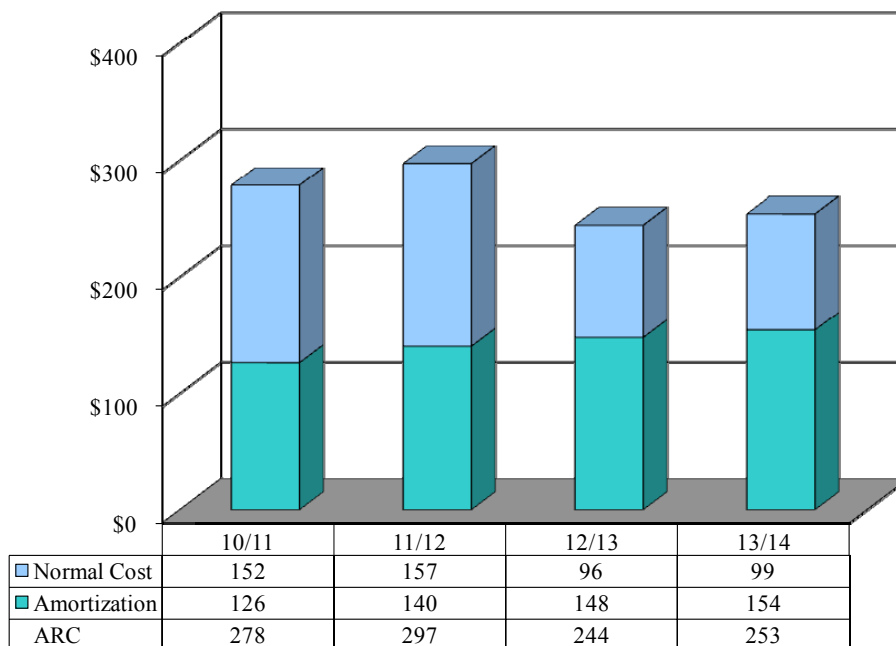
19



## RESULTS

### Annual Required Contributions

(Amounts in 000's)



October 4, 2013

20



**RESULTS**

**Estimated Net OPEB Obligation (NOO)**

(Amounts in 000's)

<b>Estimated Net OPEB Obligation</b>	<b>CAFR 2010/11</b>	<b>CAFR 2011/12</b>	<b>Estimated 2012/13</b>	<b>Estimated 2013/14</b>
■ <b>NOO at Beginning of Year</b>	\$ 279	\$ 495	\$ 720	\$ 753
■ <b>Annual OPEB Cost (AOC)</b>				
• Annual Required Contribution	278	300	244	253
• Interest on NOO	-	22	45	47
• Amortization of NOO	-	(25)	(41)	(44)
• Annual OPEB Cost	278	297	247	256
■ <b>Contributions</b>				
• Benefit Payments	63	72	74	90
• Trust Pre-Funding	-	-	140	163
• Total Contribution	63	72	214	253
■ <b>NOO at End of Year</b>	495	720	753	756

**RESULTS**

**Pre-Funding (Full ARC Contribution) Illustration**

**6.25% Discount Rate**

(Amounts in 000's)

<b>FYE June 30,</b>	<b>Beginning of Year Net OPEB Obligation</b>	<b>ARC</b>	<b>Annual OPEB Cost (AOC)</b>	<b>Contribution</b>			<b>Payroll</b>	<b>ARC as % of Payroll</b>	<b>Contrib as % of Payroll</b>
				<b>Benefit Pmts</b>	<b>Pre- Funding</b>	<b>Total Contrib</b>			
2013	\$ 720	\$ 244	\$ 247	\$ 74	\$ 140	\$ 214	\$ 12,800	1.7%	1.7%
2014	753	253	256	90	163	253	13,216	1.9%	1.9%
2015	756	261	263	99	162	261	13,645	1.9%	1.9%
2016	757	270	270	109	161	270	14,089	1.9%	1.9%
2017	757	279	277	120	159	279	14,547	1.9%	1.9%
2018	756	288	285	130	158	288	15,020	1.9%	1.9%
2019	753	297	292	142	155	297	15,508	1.9%	1.9%
2020	748	307	300	153	154	307	16,012	1.9%	1.9%
2021	742	317	308	165	152	317	16,532	1.9%	1.9%
2022	733	327	316	177	150	327	17,069	1.9%	1.9%

**RESULTS**

**Amortization Bases**

(Amounts in 000's)

	1/1/2010 Val		1/1/2012 Val	
	6/30/2010	6/30/2011	6/30/2012	6/30/2013
<b>■ Outstanding Balance</b>				
• Initial UAAL	\$ 1,833	\$ 1,835	\$ 1,835	\$ 1,845
<b>■ (Gain)/Loss</b>				
• 2010 valuation	778	779	779	783
• 2012 valuation	-	-	(752)	(756)
• Contribution (Gain)/Loss	<u>279</u>	<u>495</u>	<u>720</u>	<u>753</u>
<b>■ Total UAAL</b>	2,889	3,109	2,582	2,625

**RESULTS**

**Amortization Payments**

(Amounts in 000's)

	1/1/2010 Val		1/1/2012 Val	
	2010/11	2011/12	2012/13	2013/14
<b>■ Outstanding Balance</b>				
• Initial UAAL	\$ 80	\$ 83	\$ 105	\$ 108
<b>■ (Gain)/Loss</b>				
• 2010 valuation	34	35	45	46
• 2012 valuation			(43)	(44)
• Contribution (Gain)/Loss	<u>12</u>	<u>22</u>	<u>41</u>	<u>44</u>
<b>■ Total UAAL</b>	126	140	148	154
<b>■ Average Amortization Years</b>	28.0	27.0	26.0	25.0

**RESULTS**

**Discount Rate Sensitivity**

(Amounts in 000's)

Discount Rate	4.50%	Current 6.25%	7.25%
■ PVPB on 1/1/2012	\$ 4,744	\$ 3,317	\$ 2,770
■ Funded Status on 1/1/2012			
• AAL	3,291	2,496	2,163
• Assets	-	-	-
• Unfunded AAL	3,291	2,496	2,163
■ 2012/13 ARC			
• Normal Cost	147	96	77
• UAAL Amortization <sup>8</sup>	158	148	143
• Total ARC	305	244	220
• ARC as % of payroll	2.4%	1.9%	1.7%

<sup>8</sup> Unfunded AAL amortized over 26 years



October 4, 2013



**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)
1/01/2008	\$ -	\$ 1,803	\$ 1,803	-	\$ 17,616	10.2%
1/01/2010	-	2,786	2,786	-	15,730	17.7%
1/01/2012	-	2,496	2,496	-	12,397	20.1%



October 4, 2013



**RESULTS**

**Actuarial Obligations by Group**

**January 1, 2012**

**6.25% Discount Rate**

(Amounts in 000's)

	Miscellaneous	Safety	Total
<b>■ Present Value of Projected Benefits</b>			
• Actives	\$ 1,104	\$ 642	\$ 1,746
• Retirees	<u>981</u>	<u>590</u>	<u>1,571</u>
• Total	2,085	1,232	3,317
<b>■ Actuarial Accrued Liability</b>			
• Actives	657	269	925
• Retirees	<u>981</u>	<u>590</u>	<u>1,571</u>
• Total	1,638	859	2,496
<b>■ Actuarial Assets</b>	<u>-</u>	<u>-</u>	<u>-</u>
<b>■ Unfunded Actuarial Accrued Liability</b>	1,638	859	2,496
<b>■ Normal Cost (2012/13)</b>	59	37	96
<b>■ Pay-As-You-Go Cost (2012/13)</b>	51	23	74

**RESULTS**

**Annual Required Contribution (ARC) by Group**

**2012/13 Fiscal Year**

**6.25% Discount Rate**

(Amounts in 000's)

	Miscellaneous	Safety	Total
<b>■ ARC - \$</b>			
• Normal Cost	\$ 59	\$ 37	\$ 96
• UAAL Amort. <sup>9</sup>	<u>97</u>	<u>51</u>	<u>148</u>
• ARC	156	88	244
<b>■ Projected Payroll</b>	8,024	4,776	12,800
<b>■ ARC - %</b>			
• Normal Cost	0.7%	0.8%	0.8%
• UAAL Amort.	<u>1.2%</u>	<u>1.1%</u>	<u>1.2%</u>
• ARC	1.9%	1.8%	1.9%

<sup>9</sup> Allocated in proportion to the AAL

## ACTUARIAL CERTIFICATION

This report presents the City of Novato Healthcare Plan ("Plan") January 1, 2012 actuarial valuation. The purpose of this valuation is to:

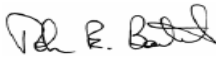
- Determine the Governmental Accounting Standards Board Statement Nos. 43 and 45 January 1, 2012 Benefit Obligations,
- Determine the Plan's January 1, 2012 Funded Status, and
- Calculate the 2012/13 and 2013/14 Annual Required Contributions.

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 City 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.

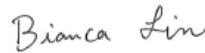
The valuation is based on Plan provisions, asset information, and employee data provided by the City and summarized in this report. We reviewed the data for reasonableness but did not perform an audit. The valuation was prepared using generally accepted actuarial principles and practices and the actuarial methods and assumptions summarized in this report.

This report presents the results of our valuation in accordance with our understanding of GASB 43 and 45. The undersigned are members of the American Academy of Actuaries and meet Academy Qualification Standards to render the actuarial results and opinions in this report.

Respectfully submitted,



John E. Bartel, ASA, FCA, MAAA  
President  
Bartel Associates, LLC  
October 4, 2013



Bianca Lin, FSA, EA, MAAA  
Assistant Vice President and Actuary  
Bartel Associates, LLC  
October 4, 2013



29



## EXHIBITS

<u>Topic</u>	<u>Page</u>
Premiums	E-1
Data Summary	E-3
Actuarial Assumptions	E-19
Definitions	E-25



30





**PREMIUMS**

**2012 PEMHCA Monthly Premiums**  
**Bay Area**

Plan	Non-Medicare Eligible			Medicare Eligible		
	Single	2-Party	Family	Single	2-Party	Family
Blue Shield	\$711.10	\$1,422.20	\$1,848.86	\$337.99	\$675.98	\$1,013.97
Blue Shield NetValue	611.59	1,223.18	1,590.13	337.99	675.98	1,013.97
Kaiser	610.44	1,220.88	1,587.14	277.81	555.62	833.43
PERS Choice	574.15	1,148.30	1,492.79	383.44	766.88	1,150.32
PERS Select	487.39	974.78	1,267.21	383.44	766.88	1,150.32
PERSCare	1,029.23	2,058.46	2,676.00	432.43	864.86	1,297.29
PORAC	556.00	1,041.00	1,323.00	418.00	833.00	1,331.00

**PREMIUMS**

**2013 PEMHCA Monthly Premiums**  
**Bay Area**

Plan	Non-Medicare Eligible			Medicare Eligible		
	Single	2-Party	Family	Single	2-Party	Family
Blue Shield	\$784.63	\$1,569.26	\$2,040.04	\$261.32	\$522.64	\$783.96
Blue Shield NetValue	670.21	1,340.42	1,742.55	261.32	522.64	783.96
Kaiser	668.63	1,337.26	1,738.44	288.37	576.74	865.11
PERS Choice	667.03	1,334.06	1,734.28	325.74	651.48	977.22
PERS Select	487.20	974.40	1,266.72	325.74	651.48	977.22
PERSCare	1,083.11	2,166.22	2,816.09	370.43	740.86	1,111.29
PORAC	581.00	1,088.00	1,382.00	418.00	833.00	1,331.00

**DATA SUMMARY**

**Medical Plan Participation**  
**Non-waived participants**

Plan	Actives	Retirees		
		<65	>65	Total
Blue Shield	21%	7%	7%	7%
Kaiser	63%	57%	59%	58%
PERS Choice	12%	18%	19%	18%
PERSCare	0%	0%	15%	7%
PERS Select	2%	0%	0%	0%
PORAC	3%	18%	0%	9%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**DATA SUMMARY**

**Active Medical Plan Coverage**<sup>10</sup>

Medical Plan	Single	2-Party	Family	Waived	Total
Blue Shield	18	4	2	-	24
Kaiser	36	16	19	-	71
PERS Choice	8	2	3	-	13
PERS Select	1	-	1	-	2
PORAC	-	-	3	-	3
Waived	-	-	-	66	66
<b>Total</b>	<b>63</b>	<b>22</b>	<b>28</b>	<b>66</b>	<b>179</b>

<sup>10</sup> All plans except one (Sacramento region) in Bay Area region

**DATA SUMMARY**

**Retiree Medical Plan Coverage**  
**Under Age 65**

Medical Plan	Region	Single	2-Party	Family	Waived	Total
Blue Shield	Bay Area	2	-	-	-	2
Kaiser	Bay Area	8	5	2	-	15
	Sacramento	1	-	-	-	1
PERS Choice	Bay Area	1	2	-	-	3
	North	-	-	-	-	-
	Out of State	2	-	-	-	2
PERSCare	Bay Area	-	-	-	-	-
	Out of State	-	-	-	-	-
PORAC		2	2	1	-	5
Waived		-	-	-	42	42
<b>Total</b>		<b>16</b>	<b>9</b>	<b>3</b>	<b>42</b>	<b>70</b>

**DATA SUMMARY**

**Retiree Medical Plan Coverage**  
**Over Age 65**

Medical Plan	Region	Single	2-Party	Family	Waived	Total
Blue Shield	Bay Area	2	-	-	-	2
Kaiser	Bay Area	8	8	-	-	16
	Sacramento	-	-	-	-	-
PERS Choice	Bay Area	1	1	-	-	2
	North	-	1	-	-	1
	Out of State	1	1	-	-	2
PERSCare	Bay Area	-	1	-	-	1
	Out of State	3	-	-	-	3
PORAC		-	-	-	-	-
Waived		-	-	-	46	46
<b>Total</b>		<b>15</b>	<b>12</b>	<b>-</b>	<b>46</b>	<b>73</b>

**DATA SUMMARY**

**Actives by Age and Service**  
**Miscellaneous**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	-	-	-	-	-	-	-	-
25-29	1	-	2	-	-	-	-	3
30-34	2	3	4	1	-	-	-	10
35-39	-	-	3	6	1	-	-	10
40-44	-	5	7	-	-	-	-	12
45-49	-	3	4	5	3	-	-	15
50-54	-	4	9	13	4	3	3	36
55-59	-	2	4	4	3	2	6	21
60-64	-	1	1	2	3	2	4	13
≥ 65	-	-	1	1	-	1	-	3
<b>Total</b>	<b>3</b>	<b>18</b>	<b>35</b>	<b>32</b>	<b>14</b>	<b>8</b>	<b>13</b>	<b>123</b>

**DATA SUMMARY**

**Actives by Age and Service**  
**Safety**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	-	1	-	-	-	-	-	1
25-29	3	5	-	-	-	-	-	8
30-34	1	3	7	2	-	-	-	13
35-39	-	3	6	5	-	-	-	14
40-44	1	-	3	1	-	-	-	5
45-49	-	-	1	1	2	2	1	7
50-54	-	-	-	1	1	-	4	6
55-59	-	-	2	-	-	-	-	2
60-64	-	-	-	-	-	-	-	-
≥ 65	-	-	-	-	-	-	-	-
<b>Total</b>	<b>5</b>	<b>12</b>	<b>19</b>	<b>10</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>56</b>

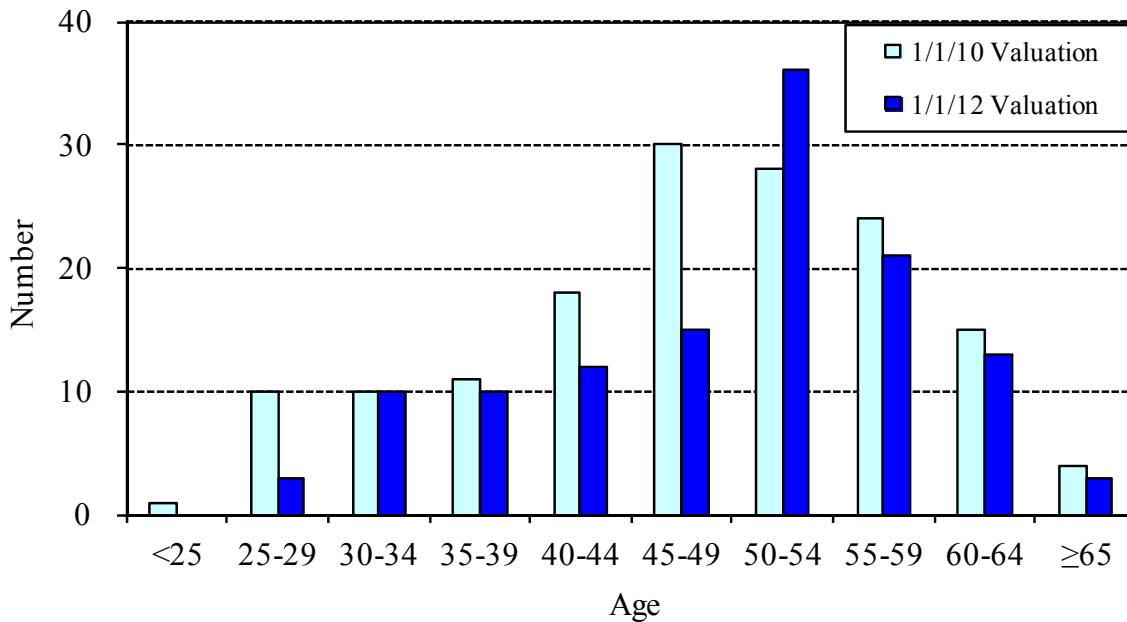
**DATA SUMMARY**

**Actives by Age and Service**  
**Total**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	-	1	-	-	-	-	-	1
25-29	4	5	2	-	-	-	-	11
30-34	3	6	11	3	-	-	-	23
35-39	-	3	9	11	1	-	-	24
40-44	1	5	10	1	-	-	-	17
45-49	-	3	5	6	5	2	1	22
50-54	-	4	9	14	5	3	7	42
55-59	-	2	6	4	3	2	6	23
60-64	-	1	1	2	3	2	4	13
≥ 65	-	-	1	1	-	1	-	3
<b>Total</b>	<b>8</b>	<b>30</b>	<b>54</b>	<b>42</b>	<b>17</b>	<b>10</b>	<b>18</b>	<b>179</b>

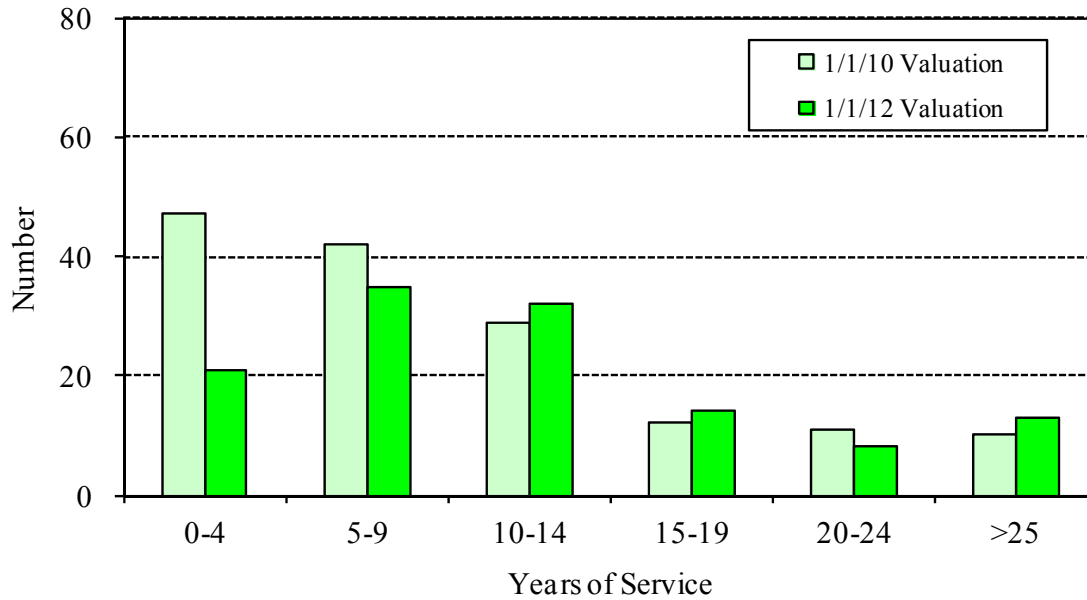
**DATA SUMMARY**

**Active Age Distribution**  
**Miscellaneous**



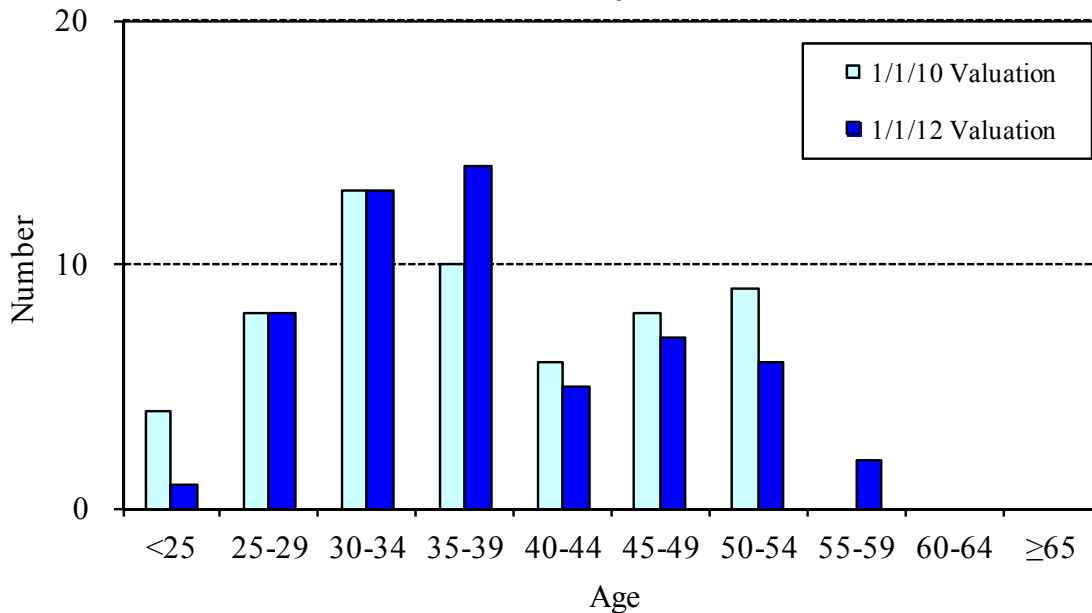
DATA SUMMARY

**Active Service Distribution**  
**Miscellaneous**



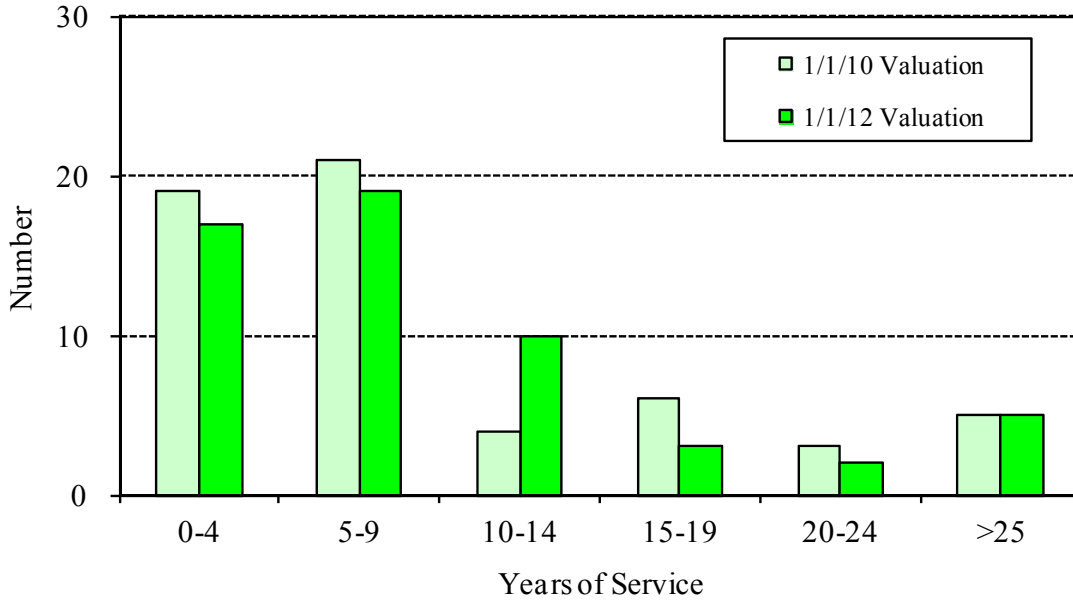
DATA SUMMARY

**Active Age Distribution**  
**Safety**



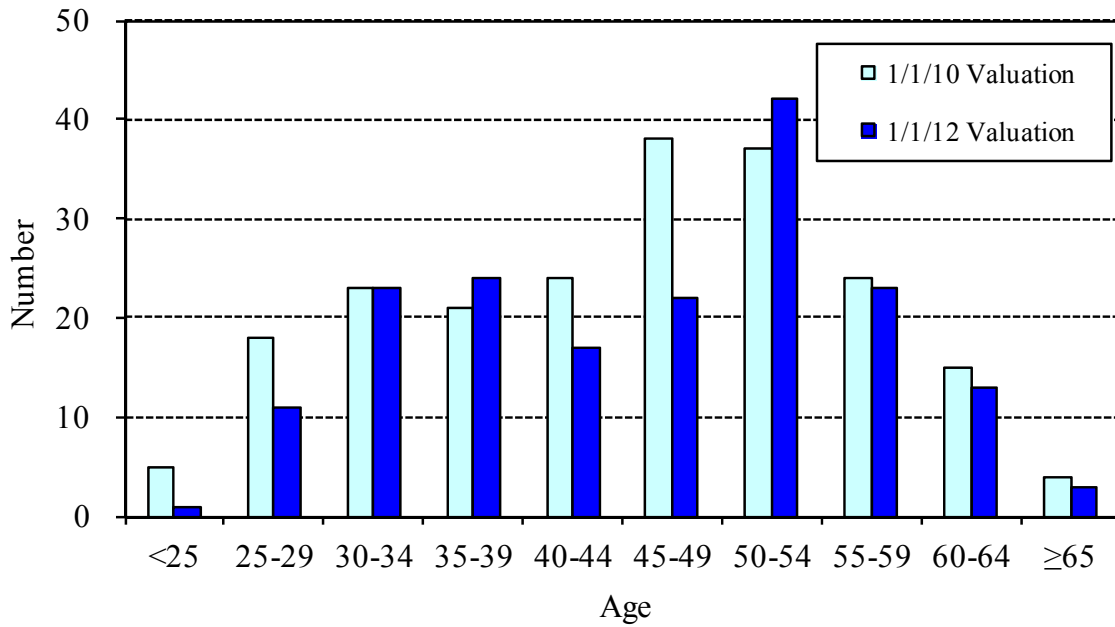
DATA SUMMARY

**Active Service Distribution**  
**Safety**



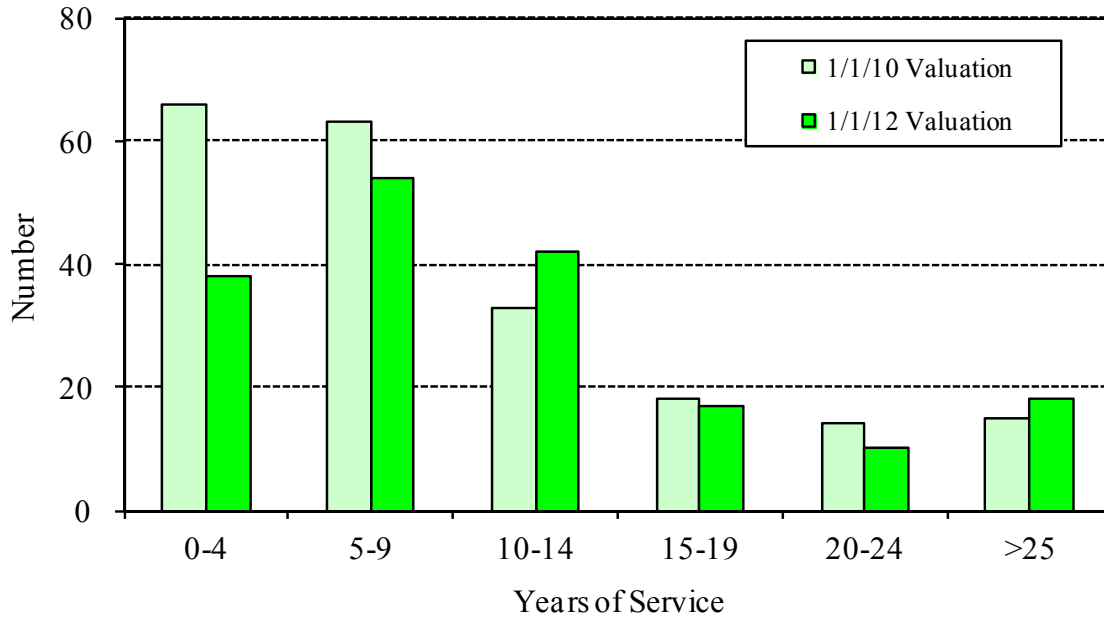
DATA SUMMARY

**Active Age Distribution**  
**Total**



**DATA SUMMARY**

**Active Service Distribution**  
**Total**



**DATA SUMMARY**

**Retiree Healthcare Coverage by Age Group**  
**Miscellaneous**

Age	Single	2-Party	Family	Waived	Total
Under 50	-	-	-	1	1
50-54	-	-	-	3	3
55-59	3	2	-	7	12
60-64	7	1	1	12	21
65-69	9	5	-	14	28
70-74	2	3	-	7	12
75-79	2	-	-	4	6
80-84	1	1	-	4	6
Over 85	1	-	-	8	9
<b>Total</b>	<b>25</b>	<b>12</b>	<b>1</b>	<b>60</b>	<b>98</b>

Average Age	67.0	67.1	64.5	69.4	68.5
-------------	------	------	------	------	------



**DATA SUMMARY**

**Retiree Healthcare Coverage by Age Group**  
Safety

Age	Single	2-Party	Family	Waived	Total
Under 50	-	-	-	5	5
50-54	1	1	1	2	5
55-59	2	4	-	5	11
60-64	3	1	1	7	12
65-69	-	1	-	5	6
70-74	-	2	-	2	4
75-79	-	-	-	2	2
80-84	-	-	-	-	-
Over 85	-	-	-	-	-
Total	6	9	2	28	45

Average Age	59.3	62.4	57.6	61.2	61.0
-------------	------	------	------	------	------



October 4, 2013

E-17



**DATA SUMMARY**

**Retiree Healthcare Coverage by Age Group**  
Total

Age	Single	2-Party	Family	Waived	Total
Under 50	-	-	-	6	6
50-54	1	1	1	5	8
55-59	5	6	-	12	23
60-64	10	2	2	19	33
65-69	9	6	-	19	34
70-74	2	5	-	9	16
75-79	2	-	-	6	8
80-84	1	1	-	4	6
Over 85	1	-	-	8	9
Total	31	21	3	88	143

Average Age	65.6	65.1	59.9	66.8	66.1
-------------	------	------	------	------	------



October 4, 2013

E-18



**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>
■ Valuation Date	<ul style="list-style-type: none"> <li>• January 1, 2010</li> <li>• 2010/11 and 2011/12 ARCs</li> </ul>	<ul style="list-style-type: none"> <li>• January 1, 2012</li> <li>• 2012/13 and 2013/14 ARCs</li> </ul>
■ Discount Rate	<ul style="list-style-type: none"> <li>• 4.50% Not pre-funded</li> <li>• 7.25% ARC pre-funded with CalPERS CERBT (for sensitivity analysis)</li> </ul>	<ul style="list-style-type: none"> <li>• 6.25% Full ARC pre-funded with PARS moderate OPEB trust</li> <li>• Sensitivity:                             <ul style="list-style-type: none"> <li>➢ 4.50% (not pre-funded)</li> <li>➢ 7.25% (full ARC pre-funded)</li> </ul> </li> </ul>
■ Funding Policy	<ul style="list-style-type: none"> <li>• Pay as you go</li> </ul>	<ul style="list-style-type: none"> <li>• Full ARC pre-funded with PARS moderate OPEB trust</li> </ul>
■ General Inflation	<ul style="list-style-type: none"> <li>• 3.0%</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
■ Aggregate Payroll Increases	<ul style="list-style-type: none"> <li>• 3.25%</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>

**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>																		
■ Merit Pay Increases	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>																		
■ Future New Entrants	<ul style="list-style-type: none"> <li>• None – Closed Group</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>																		
■ PEMHCA Minimum Increase	<table border="0"> <thead> <tr> <th><u>Year</u></th> <th><u>Amount</u></th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>\$108.00</td> </tr> <tr> <td>2012</td> <td>112.00</td> </tr> <tr> <td>2013+</td> <td>4.5%/yr</td> </tr> </tbody> </table>	<u>Year</u>	<u>Amount</u>	2011	\$108.00	2012	112.00	2013+	4.5%/yr	<table border="0"> <thead> <tr> <th><u>Year</u></th> <th><u>Amount</u></th> </tr> </thead> <tbody> <tr> <td>2012</td> <td>\$112.00</td> </tr> <tr> <td>2013</td> <td>115.00</td> </tr> <tr> <td>2014</td> <td>119.00</td> </tr> <tr> <td>2015+</td> <td>4.5%/yr</td> </tr> </tbody> </table>	<u>Year</u>	<u>Amount</u>	2012	\$112.00	2013	115.00	2014	119.00	2015+	4.5%/yr
<u>Year</u>	<u>Amount</u>																			
2011	\$108.00																			
2012	112.00																			
2013+	4.5%/yr																			
<u>Year</u>	<u>Amount</u>																			
2012	\$112.00																			
2013	115.00																			
2014	119.00																			
2015+	4.5%/yr																			
■ Mortality, Termination, Disability	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> </ul>	<ul style="list-style-type: none"> <li>• CalPERS 1997-2007 Experience Study</li> <li>• Mortality Scale AA</li> </ul>																		

**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>																		
<ul style="list-style-type: none"> <li>Service Retirement</li> </ul>	<ul style="list-style-type: none"> <li>CalPERS 1997-2007 Experience Study</li> </ul> <table border="0"> <tr> <td></td> <td align="center"><u>Level</u></td> <td align="center"><u>ERA</u></td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">≈ 59.4</td> </tr> <tr> <td>Safety</td> <td align="center">3%@55</td> <td align="center">≈ 56.0 (Police)</td> </tr> </table>		<u>Level</u>	<u>ERA</u>	Misc	2%@55	≈ 59.4	Safety	3%@55	≈ 56.0 (Police)	<ul style="list-style-type: none"> <li>CalPERS 1997-2007 Experience Study</li> </ul> <table border="0"> <tr> <td></td> <td align="center"><u>Level</u></td> <td align="center"><u>ERA</u></td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">≈ 59.5</td> </tr> <tr> <td>Safety</td> <td align="center">3%@55</td> <td align="center">≈ 56.0 (Police)</td> </tr> </table>		<u>Level</u>	<u>ERA</u>	Misc	2%@55	≈ 59.5	Safety	3%@55	≈ 56.0 (Police)
	<u>Level</u>	<u>ERA</u>																		
Misc	2%@55	≈ 59.4																		
Safety	3%@55	≈ 56.0 (Police)																		
	<u>Level</u>	<u>ERA</u>																		
Misc	2%@55	≈ 59.5																		
Safety	3%@55	≈ 56.0 (Police)																		
<ul style="list-style-type: none"> <li>CalPERS Service</li> </ul>	<ul style="list-style-type: none"> <li>Actual CalPERS Service</li> </ul>	<ul style="list-style-type: none"> <li>Same</li> </ul>																		
<ul style="list-style-type: none"> <li>PEMHCA Administrative Fee</li> </ul>	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>0.25% of premium for 2012/13+</li> </ul>																		

**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>																								
<ul style="list-style-type: none"> <li>Medical Trend</li> </ul>	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<table border="0"> <tr> <td></td> <td align="center"><u>Non-Medicare</u></td> <td align="center"><u>Medicare</u></td> </tr> <tr> <td></td> <td align="center" colspan="2"><u>All Plans</u></td> </tr> <tr> <td><u>Year</u></td> <td align="center" colspan="2"><u>actual 2012 premiums</u></td> </tr> <tr> <td>2012</td> <td align="center" colspan="2">actual 2012 premiums</td> </tr> <tr> <td>2013</td> <td align="center" colspan="2">actual 2013 premiums</td> </tr> <tr> <td>2014</td> <td align="center">8.5%</td> <td align="center">8.9%</td> </tr> <tr> <td>↓</td> <td align="center">↓</td> <td align="center">↓</td> </tr> <tr> <td>2021+</td> <td align="center">5.0%</td> <td align="center">5.0%</td> </tr> </table> <ul style="list-style-type: none"> <li>For calculating PEMHCA administrative fee only</li> </ul>		<u>Non-Medicare</u>	<u>Medicare</u>		<u>All Plans</u>		<u>Year</u>	<u>actual 2012 premiums</u>		2012	actual 2012 premiums		2013	actual 2013 premiums		2014	8.5%	8.9%	↓	↓	↓	2021+	5.0%	5.0%
	<u>Non-Medicare</u>	<u>Medicare</u>																								
	<u>All Plans</u>																									
<u>Year</u>	<u>actual 2012 premiums</u>																									
2012	actual 2012 premiums																									
2013	actual 2013 premiums																									
2014	8.5%	8.9%																								
↓	↓	↓																								
2021+	5.0%	5.0%																								
<ul style="list-style-type: none"> <li>Medical Plan at Retirement</li> </ul>	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>Currently covered: same as current election</li> <li>Currently waived: Kaiser Bay Area</li> <li>For calculating PEMHCA administrative fee only</li> </ul>																								

**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>
<ul style="list-style-type: none"> <li>■ Participation</li> </ul>	<ul style="list-style-type: none"> <li>• Actives:                             <ul style="list-style-type: none"> <li>➢ Currently covered: 60%</li> <li>➢ Currently waived: 20%</li> </ul> </li> <li>• Retirees:                             <ul style="list-style-type: none"> <li>➢ Currently covered: 100%</li> <li>➢ Currently waived: 20% waived retirees elect coverage at 65</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Same<sup>11</sup></li> </ul>
<ul style="list-style-type: none"> <li>■ Marital Status at Retirement</li> </ul>	<ul style="list-style-type: none"> <li>• Currently Covered – Same as current election</li> <li>• Currently Waived – 80% married</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>

<sup>11</sup> Based on current experience of retirees who retired since 2007

**ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>	<b>January 1, 2010 Valuation</b>	<b>January 1, 2012 Valuation</b>
<ul style="list-style-type: none"> <li>■ Spouse Age</li> </ul>	<ul style="list-style-type: none"> <li>• Current actives - Males 3 years older than females</li> <li>• Current retirees - Males 3 years older than females if spouse birth date not available</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
<ul style="list-style-type: none"> <li>■ Surviving Spouse Participation</li> </ul>	<ul style="list-style-type: none"> <li>• 100%</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>

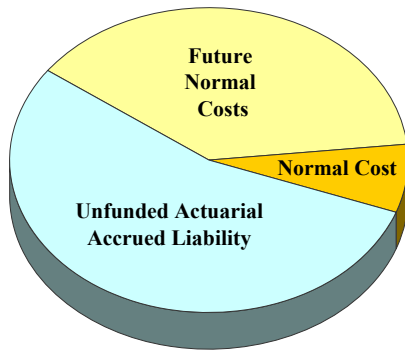
## DEFINITIONS

<p>■ <b>GASB 45 Accrual Accounting</b></p>	<ul style="list-style-type: none"> <li>● Project future employer-provided benefit cash flows for current active employees and current retirees</li> <li>● Discount projected cash flow to valuation date using discount rate (assumed return on assets used to pay benefits) and other actuarial assumptions to determine present value of projected future benefits (PVB)</li> <li>● Allocate PVB to past, current, and future periods using the actuarial cost method</li> <li>● Actuarial cost method used for this valuation is the Entry Age Normal Cost method which determines Normal Cost as a level percentage of payroll (same method used by CalPERS)</li> <li>● Normal Cost is amount allocated to current fiscal year</li> <li>● Actuarial Accrued Liability (AAL) is amount allocated to prior service with employer</li> <li>● Unfunded AAL (UAAL) is AAL less plan assets pre-funded in a segregated and restricted trust</li> </ul>
<p>■ <b>PayGo Cost</b></p>	<ul style="list-style-type: none"> <li>● Cash subsidy is the pay-as-you-go employer benefit payments for retirees</li> <li>● Implied subsidy is the difference between the actual cost of retiree benefits and retiree premiums subsidized by active employee premiums</li> </ul>

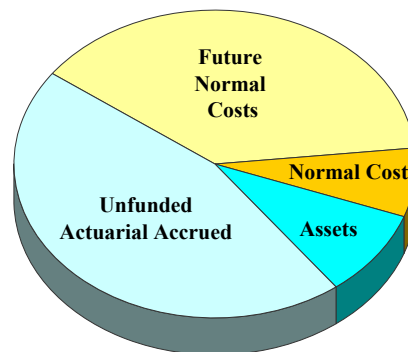
## DEFINITIONS

### Present Value of Benefits

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



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



## DEFINITIONS

<p>■ Annual Required Contribution (ARC)</p>	<ul style="list-style-type: none"><li>● “Required contribution” for the current period including:<ul style="list-style-type: none"><li>➢ Normal Cost</li><li>➢ Amortization of:<ul style="list-style-type: none"><li>- Initial UAAL</li><li>- AAL for plan, assumption, and method changes</li><li>- Experience gains/losses (difference between expected and actual)</li><li>- Contribution gains/losses (difference between ARC and contributions)</li></ul></li></ul></li><li>● ARC in excess of pay-as-you-go costs not required to be funded</li></ul>
<p>■ Net OPEB Obligation (NOO)</p>	<ul style="list-style-type: none"><li>● Net OPEB Obligation is the accumulated amounts expensed but not funded</li><li>● Net OPEB Asset if amounts funded exceed those expensed</li></ul>
<p>■ Annual OPEB Cost (AOC)</p>	<ul style="list-style-type: none"><li>● Expense for the current period including:<ul style="list-style-type: none"><li>➢ ARC</li><li>➢ Interest on NOO</li><li>➢ Adjustment of NOO</li></ul></li><li>● NOO adjustment prevents double counting of expense since ARCs include an amortization of prior contribution gains/losses previously expensed</li></ul>