

#### MEMORANDUM

TO:

Mayor Edwin Lee

Members of the Board of Supervisors

FROM:

Ben Rosenfield, Controller

DATE:

March 5, 2015

SUBJECT: Report on Retiree (Postemployment) Medical Benefit Costs

I am providing with this letter an updated valuation of the City's retiree (or postemployment) medical benefits liability as required by Governmental Accounting Standards Board Statement Number 45 (GASB-45), Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. The actuarial and analytical work was performed by Cheiron, Inc., the actuarial consulting firm that also provides services to the San Francisco Employee Retirement System. This letter briefly summarizes the analysis and the attached package includes Cheiron's most recent Postretirement Health Plan Actuarial Valuation Report and a slide presentation illustrating the findings.

#### **Executive Summary**

- The City's unfunded actuarial liability for other post-employment health benefits (OPEB) reported in the valuation report is \$3.98 billion. This number represents the accrued future cost of providing retiree health benefits earned by employees and retirees as of the valuation date, net of a modest balance of \$17.9 million in the Retiree Health Care Trust Fund.
- This unfunded liability estimate has decreased by approximately 10%, or \$437 million, from the prior study performed two years ago. This reduction is largely due to lower than previously projected medical inflation, likely due at least in part to cost-containment efforts pursued by the City's Health Service System. In addition, an increase in the discount rate, changes in the demographics of the participants, and the benefits of recent ballot measures have contributed to the reduction.
- Until recently, the City paid for retiree medical benefits on a 'pay-as-you-go' basis, which means paying the cost of the retiree health benefits as they become due each year. As a sound financial management practice, it is preferable to set aside funds for these benefits as they are earned, investing those funds in an interest bearing account. Over

Page 2

time, pre-funded assets will earn investment income that will be used to pay all or a portion of future benefit costs, reducing costs to future taxpayers and employees accordingly.

- As a result of Proposition B (2008), Proposition C (2011), and Proposition A (2012) the City has taken important steps in this direction in recent years, which will slow the rate of growth of the City's unfunded liability in coming years. Beginning in 2009, the City and newly-hired employees contribute to a Retiree Health Care Trust Fund, which will be used to pay for future costs of a lower retiree health benefit level. Beginning in 2016, additional contributions to this fund on behalf of pre-2009 hires will also be required by both employees and the City.
- Given the scale of the overall benefit costs and previously accumulated liability, these pre-funded contributions are modest and will phase in gradually, as the workforce changes over many years. For fiscal year 2014, the City's pay-as-you-go expense was \$160.7 million and contributions to the Retiree Health Care Trust Fund were \$5.9 million. The City's unfunded liability is projected to continue to grow for many years, albeit at a slower rate, given that the City's and employees' prefunding contributions are less than the interest due on the accumulated liability.
- With these updates, the baseline valuation projects that the OPEB costs will be fully funded by fiscal year 2043, with employer contributions never exceeding 10% of payroll. This means that no early withdrawal from the Retiree Health Care Trust Fund would be needed. Per the Charter, withdrawals can only occur if employer contributions exceed 10% of payroll and certain approvals are provided. The peak projected employer contribution rate is 9.33% in fiscal year 2029.
- As with all long-term projections, the City's unfunded actuarial liability for OPEB reported in the valuation report incorporates assumptions about the probability of events far into the future including the rate of return on investments, employee counts and wage rates, mortality rates and healthcare cost trends. The most significant driver of these projections is the future medical inflation assumption. To the extent that medical inflation exceeds these assumptions, the unfunded liability will increase, while to the extent that the City can control future inflationary increases, future costs will be lower than projected. The attached table depicts this sensitivity to certain changes in assumptions.
- As always, please feel free to call me with questions or comments at (415) 554-7500.

cc: Department Heads
Labor Organizations

#### Sensitivity Analysis Given Key Assumption Changes

		Key Assumptions	<del></del>	Projected Re	sults
Scenario	Investment Return	Payroll Growth	Health Inflation	Contributions > ARC1	Full Funding
Valuation (baseline)	7.5%	3.83%	Valuation rate	FY 2021	FY 2043
3% payroll growth	7.5%	3.00%	Valuation rate	FY 2022	FY 2047
Health Trend +1%	7.5%	3.83%	Valuation rate	FY 2022	FY 2052
Health Trend -1%	7.5%	3.83%	Valuation rate	FY 2022	FY 2040
6.5% Return	6.5%	3.83%	Valuation rate	FY 2021	FY 2046
Short Term Shock	7.5%	0% for 3 years	10% for 3 years	FY 2026	FY 2052
Long Term Pessimistic	6.5%	3.00%	+1%	FY 2022 > FY 2046	Never

<sup>&</sup>lt;sup>1</sup> The Annual Required Contribution (ARC) is the actuarially determined amount that if contributed annually to an OPEB plan is expected to be sufficient to fully fund benefit payments as they come due. This column shows the fiscal year in which the employer contributions are first expected to exceed the ARC.





#### July 1, 2012 Actuarial Valuation Results Sensitivity Testing with

January 26, 2015

Bill Hallmark, ASA, FCA Michael Schionning, FSA Rosson Cain, FSA



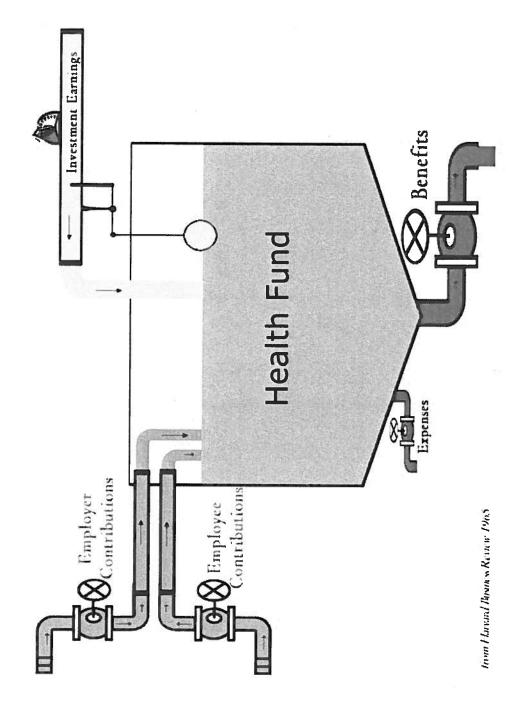
#### Introduction

Agenda

- July 1, 2012 Actuarial Valuation Highlights
- Sensitivity Testing Projection Scenarios
- Baseline Valuation
- -6.5% Investment Returns
- Short Term Shock
- Long Term Pessimistic
- Questions
- Appendix



#### Classic Values, Innovative Advice. www.cheiron.us









Summary of Key Valuation Results GASB 45 Basis	n Results	
	July 1, 2010 July 1, 2012	July 1, 2012
Discount Rate	4.25%	4.45%
Actuarial Liability Assets	\$ 4,420,146 \$ 3,997,762 (3,195) (17,852)	\$ 3,997,762 (17,852)
Unfunded Actuarial Liability (UAL) Funded Ratio	\$ 4,416,951 0.1%	<del>↔</del>
	FYE 2012	FYE 2014
Annual Required Contribution (ARC) Net OPEB Obligation (NOO), end of year	\$ 397,862 \$ 1,348,883	\$ 397,862 \$ 341,377 \$ 1,348,883 \$ 1,793,753

Dollar Amounts in Thousands

The July 1, 2012 actuarial valuation results determine the ARC for Fiscal Year Ending (FYE) 2014 and 2015, whereas the July 1, 2010 actuarial valuation is the basis for the FYE 2012 and 2013 ARC.



# July 1, 2012 Actuarial Valuation Highlights

) I In	Actuarial Liability July 1, 2012	% of Liability	To To	Total Normal Cost as of July 1, 2012	% of Total Normal Cost
Expected July 1, 2012 valuation results * \$ 4	\$ 4,974,193		₩	\$ 235,495	
(Gain)/Loss due to:					
Demographic Changes \$	\$ (131,296)	-3%	↔	6,740	3%
Health Cost Changes	(838,737)	-17%		(39,892)	-17%
Discount Rate Change from 4.25% to 4.45%	(105,288)	-2%		(8,848)	4%
Implementation of Proposition C	(14,879)	%0		0	%0
Other Assumption Changes	113,769	2%		(3,266)	-1%
Total (Gain)/Loss	\$ (976,430)	-20%	↔	(45,267)	-19%
July 1, 2012 valuation results	\$ 3,997,762		↔	190,227	

Dollar Amounts in Thousands

reduced by expected benefits paid. The Total Normal Cost as of July 1, 2010 is projected to July 1, 2012 with \* Actuarial Liability as of July 1, 2010 is projected to July 1, 2012 with expected benefits earned and interest anticipated salary increases and population changes.

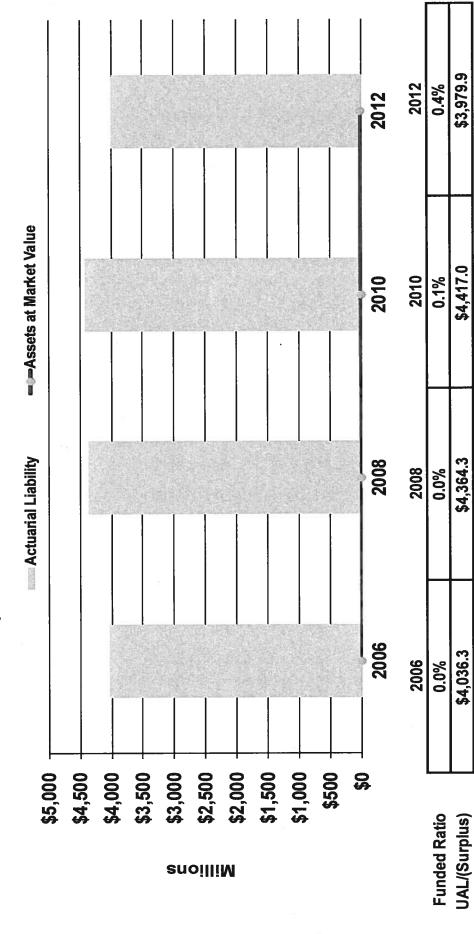
- Demographic changes are differences between actual and projected census
- Health cost changes include the change in expected and actual healthcare claims, expense costs, and premiums.
- Proposition C removed an additional subsidy for certain terminated vested participants







#### Historical Trends (GASB 45 Basis)



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4.45%

4.25%

4.25%

4.50%

**Discount Rate** 

(in millions)



# July 1, 2012 Actuarial Valuation Highlights

Annual Required Contribution GASB 45 Basis	ontri asis	bution		
	Ĺ	<b>FYE 2014</b>		FYE 2015
Total Normal Cost	₩	198,304 \$	↔	202,191
Less Expected Employee Contributions		(11,791)	1	(14,246)
Employer Normal Cost	↔	186,513	↔	187,944
Unfunded Actuarial Liability Amortization		154,864	1	162,445
Annual Required Contribution	ક્ક	341,377 \$	မာ	350,389

Dollar Amounts in Thousands

- 2012 valuation results are used to determine the Annual Required Contribution (ARC) for FYE 2014 and FYE 2015
- Unfunded liability amortized as a level percentage of payroll over 30-





# July 1, 2012 Actuarial Valuation Highlights

Projected UAL Amortization Rates at Expected Return on Assets	ect	ed Return o	n As	sets
	-	FYE 2013		FYE 2014
Actuarial Liability, beginning of year	<del>⇔</del>	2,793,329	₩	2,941,582
Normal Cost		98,620		100,536
Projected Benefit Payments		(161,324)		(163,885)
Interest		210,956		222,124
Actuarial Liability, end of year	↔	2,941,582	↔	3,100,358
Market Value of Assets, beginning of year *	↔	17,852	↔	31,205
Contributions		13,234		17,686
Net Investment Earnings		120		96
Market Value of Assets, end of year	↔	31,205	↔	48,988
Projected Unfunded Actuarial Liability (UAL)	₩	2,910,376	↔	3,051,370
Amortization Factor		18.2865		18.2865
Projected Amortization Payment (following year)	↔	159,155	↔	166,865
Payroll	↔	2,551,761	↔	2,649,493
UAL Rate		6.24%		6.30%

\* Actual market value of assets used through FYE 2014.

Dollar Amounts in Thousands







Hired before 1/10/2009

If no UAL, employees contribute lower of 50% of normal cost or 1% of pay and City contributes remainder of normal cost

If there is a UAL, City and employees contribute 1% of pay (phased in from 2017 to 2020) and City also contributes the pay-as-you-go

Hired on or after 1/10/2009

If no UAL, employees contribute lower of 50% of normal cost or 2% of pay and City contributes remainder of normal cost

If there is a UAL, employees contribute 2% of pay and City contributes 1% of pay plus the pay-as-you-go cost

Disbursements regulated to control asset growth

Administrative expenses are paid from the trust

If no UAL, benefits are paid from the trust

If there is a UAL, stabilization disbursements may be made

To reduce total City contribution to 10% of pay

Maximum stabilization disbursement is 10% of assets





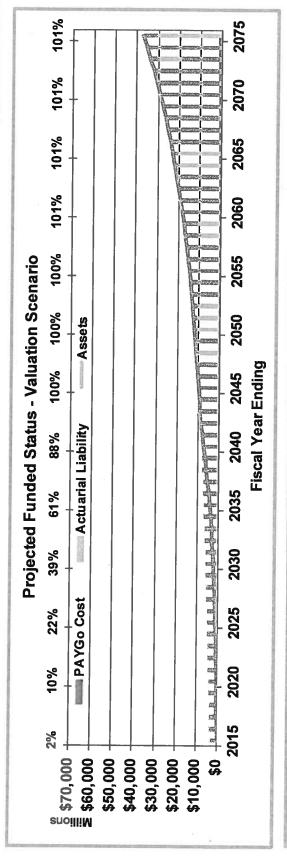
### Baseline Valuation Projections

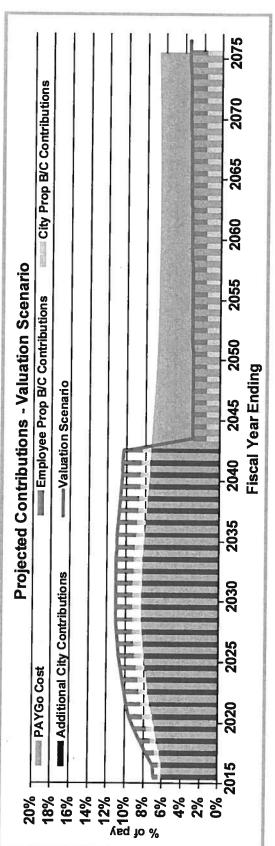
- assumptions are met each and every year Baseline valuation projections assume all
- Outlook
- Projected to be fully funded by FYE 2043
- No stabilization disbursements necessary
- Peak City contribution rate of 9.33% reached in FYE 2029





### Baseline Valuation Projections









### Sensitivity Testing Scenarios

- There is significant uncertainty in these projections
- designed to illustrate some of the potential experience for key assumptions turns out The sensitivity testing scenarios were variations in the projections, if future to be different than expected
- detail; the remainder are provided in the We will discuss three of the scenarios in appendix







	Key	Key Assumptions	<u>S</u>	Projected
Scenario	Investment Return	Payroll Growth	Health Inflation	Full Funding Date
Valuation	7.50%	3.83%	Valuation	2043
6.50% Return	6.50%	3.83%	Valuation	2046
Short Term Shock	7.50%	0.00% 3 years	10% 3 years	2052
Long Term Pessimistic	6.50%	3.00%	+1%	Never
Additional Scenarios in th	the Appendix			
3% Payroll Growth	7.50%	3.00%	Valuation	2047
Health Trend +1%	7.50%	3.83%	+1%	2052
Health Trend -1%	7.50%	3.83%	-1%	2040







While the discount rate for determining the funded status remains at 7.5%

Outlook

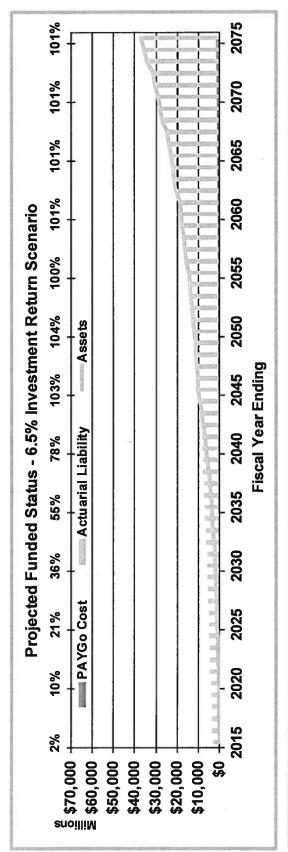
The initial projected date the plan becomes fully funded is FYE 2046 or three years later than the valuation baseline The lower than expected actual returns, however, cause a UAL to develop periodically When a UAL develops again, City contributions spike for a year, eliminating the UAL for a few years

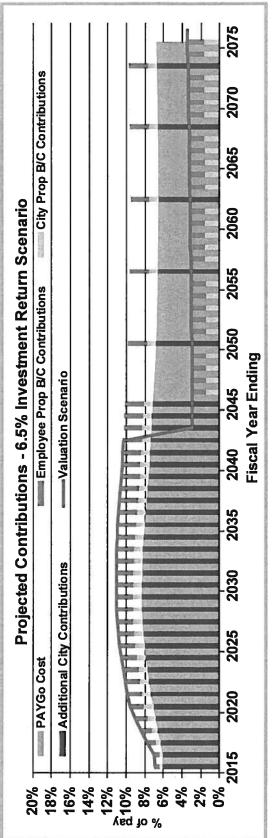
No stabilization disbursements are required under this scenario





### Sensitivity Testing – 6.5% Return







# Sensitivity Testing – Short Term Shock



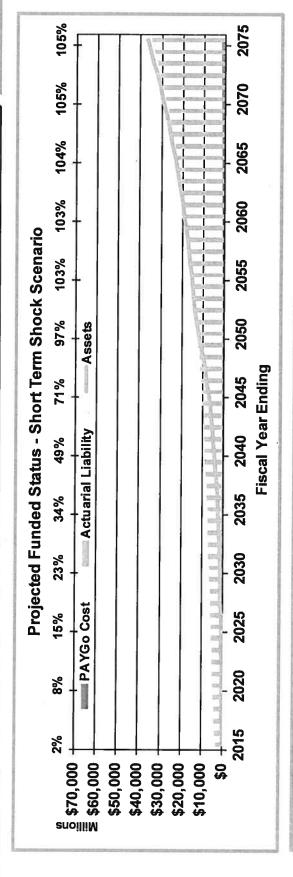
- Illustrates the potential combined effect of several key variables
- Initial 3-year adverse experience commencing FYE 2016
- 0% payroll growth
- Spike in medical inflation to 10% for 10 County average, non-Medicare, and Medicare eligible
- Return to valuation assumptions after 3-year Deriod
- Outlook
- Pushes the date for fully funding to FYE 2052
- The plan remains just over fully funded thereafter
- Stabilization disbursements are required from FYE 2020 through FYE 2046

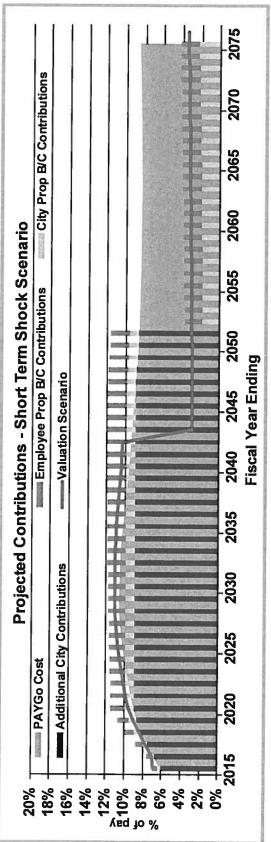




## Sensitivity Testing - Short Term Shock













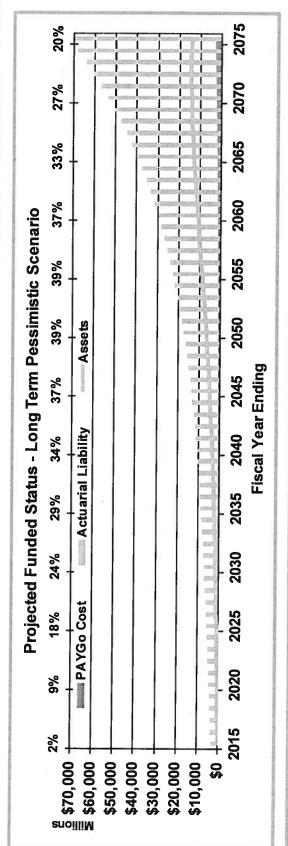
- Adverse experience for the duration of the projection
- 3% payroll growth
- 1% increase in medical inflation
- 6.5% investment return

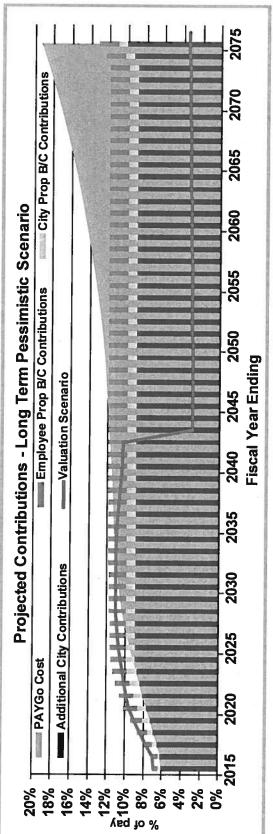
#### Outlook

- The plan never reaches full funding under this scenario
- Stabilization disbursements are required beginning in FYE 2024, but they are insufficient to hold City contributions at 10% after **FYE 2073**
- The funded status reaches a high of 39% in FYE 2054 and drops again to 18% by FYE 2077



### Sensitivity Testing – Pessimistic

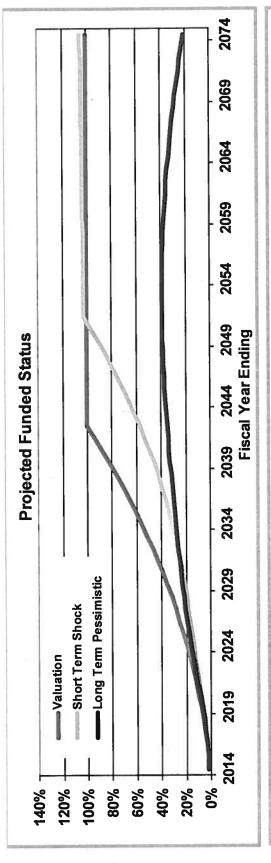


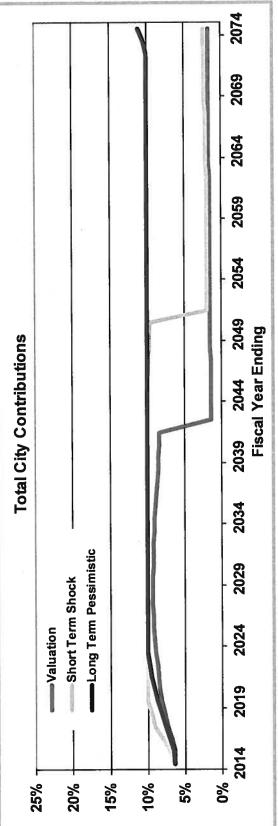




### Sensitivity Testing - Summary











Questions





#### Required Disclosures



The purpose of this presentation is to discuss the results of the July 1, 2012 actuarial valuation for City and County of San Francisco Postretirement Health Plan and present sensitivity analysis to key drivers of the valuation results. Unless indicated otherwise, the assumptions and methods used follow those listed in the July 1, 2012 Actuarial Valuation Report. This presentation is for the use of the City and County of San Francisco and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

In preparing our presentation, we relied on information (some oral and some written) supplied by the City and County of San Francisco. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

We hereby certify that, to the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This presentation was prepared for the City and County of San Francisco for the purposes described herein. This presentation is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Bill Hallmark, ASA, FCA, MAAA Consulting Actuary

Michael Schionning, FSA, MAAA Principal Consulting Actuary

Rosson Cain, FSA, MAAA Consulting Actuary





# Additional Sensitivity Scenarios

Appendix







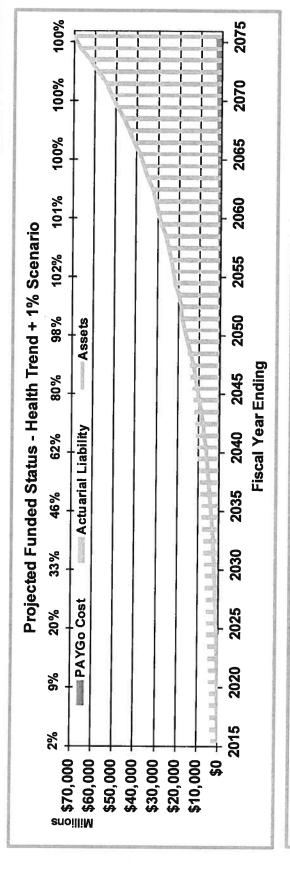
#### Outlook

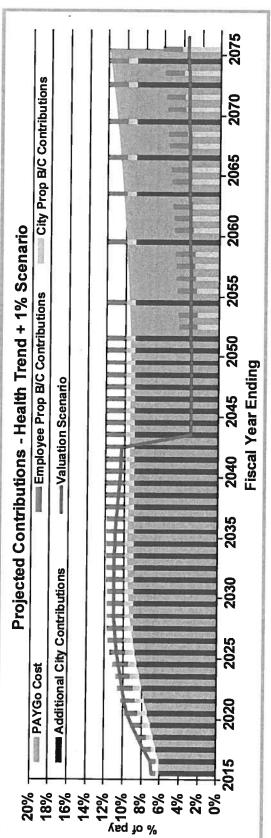
- Trend rates have a major impact on results
- The pay as you go costs are higher in all future years
- The plan initially becomes 100% funded in FYE 2052, but the continued unexpected health trend causes a JAL to develop periodically
- When a UAL develops again, City contributions spike for a year, eliminating the UAL for a few years
- Stabilization disbursements would be required from FYE 2026 through FYE 2051 and each time the contribution spiked



## Sensitivity Testing – Trend Plus 1%













Assume medical inflation is 1% lower than the valuation assumption

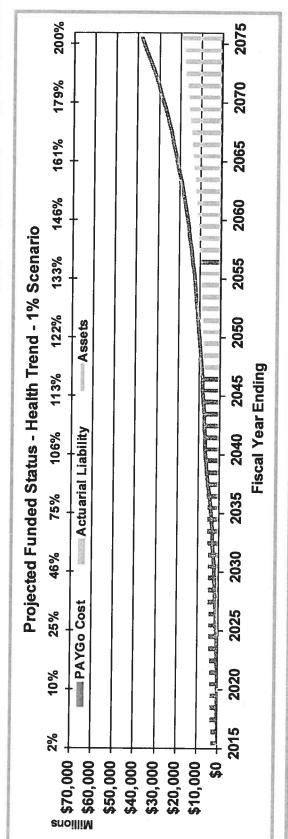
#### Outlook

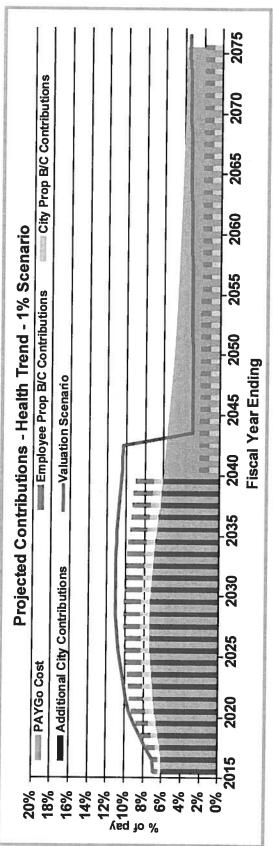
- This scenario produces lower pay as you go costs for all future years
- The plan becomes fully funded in the FYE 2040 and remains fully funded thereafter
- It reaches 200% funding by the FYE 2076





## Sensitivity Testing - Trend Minus 1%











growth in payroll compared to 3.83% used in Assume Plan experiences 3.00% annual the valuation

#### Outlook

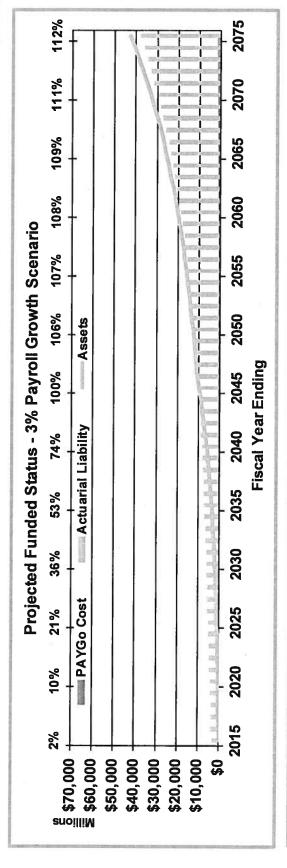
- Benefits are not pay-related so dollar amount of benefits is unchanged, but benefits represent a nigher percent of payroll
- Contributions that are determined or limited by payroll are lower
- Extends date for the plan to be fully funded to FYE 2047
- Stabilization disbursements would be required from FYE 2027 through FYE 2046

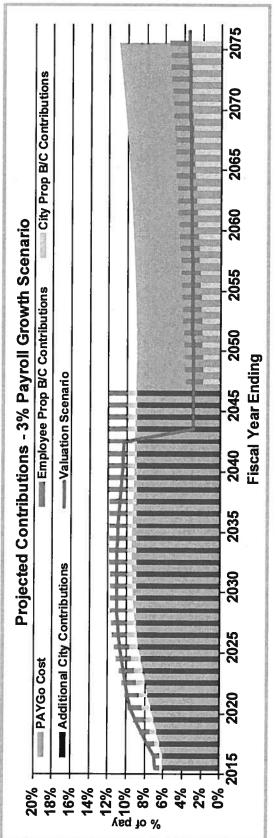




# Sensitivity Testing – 3% Payroll Growth











City and County of San Francisco
Postretirement Health Plan

Actuarial Valuation Report As of July 1, 2012

Produced by Cheiron
February 2015



#### **Table of Contents**

Letter of Transmittal	i
Section I - Executive Summary	1
Section II - Assets	7
Section III - Development of Blended Discount Rate	8
Section IV - GASB Valuation Results	13
Section V - Sensitivity to Heath Care Trend Rates	17
Section VI - Accounting Disclosures	19
Appendix A - Participant Data	23
Appendix B - Assumptions and Methods	26
Appendix C - Substantive Plan Provisions	39
Appendix D - Glossary of Terms	45
Appendix E - Abbreviation List	47



#### Classic Values, Innovative Advice



February 24, 2015

Mr. Ben Rosenfield Controller City and County of San Francisco City Hall Room 316 1 Dr. Carlton B. Goodlett Place San Francisco, CA 94102

Dear Mr. Rosenfield:

The purpose of this report is to present the July 1, 2012 actuarial valuation of the City and County of San Francisco Postretirement Health Plan (Plan). This report is for the use of the City and County of San Francisco and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. It contains our findings and information for disclosures required by the Governmental Accounting Standards Board Statements No. 43 and 45 (GASB 43 and 45) for the fiscal years ending (FYE) June 30, 2014, and June 30, 2015.

The appendices to this report describe the participant data, assumptions, methods, and substantive Plan provisions used in calculating the figures throughout the report. In preparing our report, we relied on information (some oral and some written) supplied by the City and County of San Francisco. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience, differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and, changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

Actuarial computations are calculated based on our understanding of GASB 43 and 45 and are for purposes of fulfilling plan and employer financial accounting requirements. Determinations for purposes other than meeting plan and employer financial accounting requirements may be significantly different from the results in this report.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we



Mr. Ben Rosenfield February 24, 2015 Page ii

meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for the City and County of San Francisco for the purpose described herein and for use by the Plan auditor in completing an audit related to the matters herein. This report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

This report does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations with the exception of additional medical trend loads of 2.5% for FYE 2019 and 0.5% for FYE 2020 to account for the expected impact of the excise tax on high-cost coverage.

Sincerely, Cheiron

William R. Hallmark, ASA, FCA, EA, MAAA

Willia R. Hallank

Consulting Actuary

Rosson Cain, FSA, MAAA

**Consulting Actuary** 

Michael Schionning, FSA, MAAA Principal Consulting Actuary

- HEIRON

#### SECTION I EXECUTIVE SUMMARY

The City and County of San Francisco engaged Cheiron to provide a valuation of its Postretirement Health Plan's liability as of July 1, 2012. The primary purposes of performing this actuarial valuation are to:

- Determine the Annual Required Contribution (ARC), Annual OPEB Cost (AOC), and the Net Other Postemployment Benefit (OPEB) Obligation (NOO) of the Postretirement Health Plan under GASB 43 and 45 for the fiscal years ending June 30, 2014, and June 30, 2015;
- Provide information for financial statement disclosures under GASB 43 and 45;
- Provide projections of contributions, assets, actuarial liability, ARC, and NOO to illustrate the long-term effect of the contribution strategy; and,
- Show the sensitivity of the valuation results to changes in health trend assumptions.

#### Summary of Key Valuation Results

As of July 1, 2012, the Plan's actuarial liability was approximately \$3,997.8 million. Since the valuation as of July 1, 2010, there were changes in Plan benefits and assumptions as well as demographic experience, which had a combined effect of reducing the Plan's actuarial liability by approximately \$976.4 million.

In 2009, the City began to pre-fund its obligations and subsequently the Plan created an irrevocable trust, the Retiree Health Care Trust Fund (RHCTF). As of July 1, 2012, the market value of assets was \$17.9 million. The Annual Required Contribution (ARC) for the 12 months ending June 30, 2014 is \$341.4 million, compared to \$408.7 million for the previous year.

The table below presents the key results of the July 1, 2012 actuarial valuation compared to the results of the prior actuarial valuation as of July 1, 2010. The July 1, 2012 actuarial valuation results determine the ARC for FYE 2014 and 2015, whereas the July 1, 2010 actuarial valuation is the basis for the FYE 2012 and 2013 ARC.



# SECTION I EXECUTIVE SUMMARY

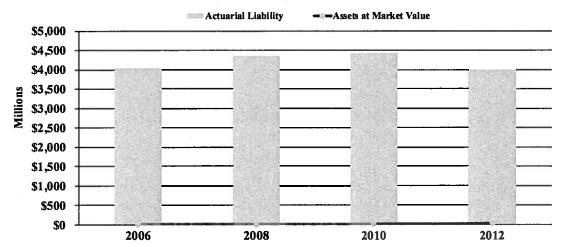
Table I-1 Summary of Key Valuation Results								
	J	uly 1, 2010	J	uly 1, 2012				
Discount Rate		4.25%		4.45%				
Actuarial Liability Assets *	\$	4,420,146 (3,195)	\$	3,997,762 (17,852)				
Unfunded Actuarial Liability (UAL)	\$	4,416,951	\$	3,979,910				
Funded Ratio		0.1%		0.4%				
		FYE 2012		FYE 2014				
Annual Required Contribution (ARC)	\$	397,862	\$	341,377				
Net OPEB Obligation (NOO), end of year	\$	1,348,883	\$	1,793,753				

<sup>\*</sup> Assets shown as of July 1, 2010 were set aside for the RHCTF and contributed when it was established in December 2010

## SECTION I EXECUTIVE SUMMARY

#### Historical Trends

The chart below shows the historical trend of assets and liabilities on a GASB 45 basis for the City and County of San Francisco Postretirement Health Benefit Plan. The first valuation complying with GASB 45 was performed as of July 1, 2006. The City established the San Francisco Retiree Health Care Trust Fund (RHCTF) in December 2010 to fund its OPEB liabilities.



City and County of San Francisco Postretirement Health Benefit Plans

	2006	2008	2010	2012
Funded Ratio	0.0%	0.0%	0.1%	0.4%
UAL/(Surplus)	\$4,036.3	\$4,364.3	\$4,417.0	\$3,979.9
(in millions)				
Discount Rate	4.50%	4.25%	4.25%	4.45%

<sup>\* 2006</sup> was the first GASB 45 valuation.

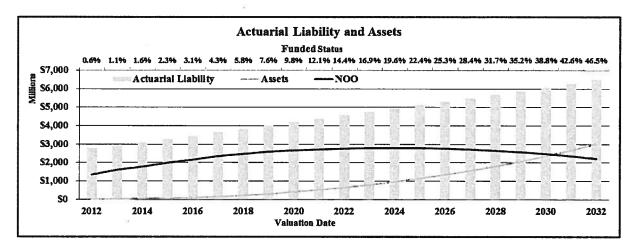


<sup>\*\*</sup> As of July 1, 2010, there were approximately \$3.2 million in assets set aside for the Postretirement Health Plan, but the RHCTF was not established until December 2010.

#### SECTION I EXECUTIVE SUMMARY

#### **Projections**

The charts below project the assets and liabilities as well as the contributions and accounting expenses for the 20 years following the valuation date. These projections are based on the current valuation assumptions, except for changes in the GASB discount rate as indicated below.



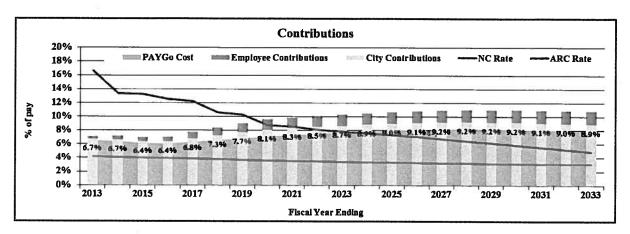
The chart above shows the projected actuarial liability (gray bars) based on a discount rate of 7.50%. On this basis, the actuarial liability of approximately \$2.8 billion as of July 1, 2012 is expected to grow to approximately \$6.5 billion over the next 20 years. On a GASB basis, the actuarial liability is calculated using a discount rate of 4.45% and as of July 1, 2012 is approximately \$4.0 billion. As contributions increase, the GASB discount rate is expected to increase to 7.50% for the fiscal year ending June 30, 2020 and later.

The green line shows the projected accumulation of assets. At its June 18, 2014 meeting, the RHCTF Board adopted an asset allocation that its investment consultant expects to earn an average of 7.50% net of expenses per year. The projection of assets uses actual assets through June 30, 2014 and projects future assets assuming a return net of expenses of 7.50% each year. The ratio of the assets to the actuarial liability is shown at the top of the chart, increasing from less than 1% to 46.5% over the 20-year period.

The purple line projects the Net OPEB Obligation (NOO). It first increases from \$1.3 billion to a peak amount of \$2.7 billion in 2024, and then starts to decrease slowly, ending at approximately \$2.1 billion in 2032. Under the recent GASB exposure drafts to replace GASB 43 and 45, however, the NOO would be replaced by a measure of the unfunded liability, the Net OPEB Liability, beginning July 1, 2017.

**CHEIRON** 

#### SECTION I EXECUTIVE SUMMARY



The chart above shows the projected annual costs. Benefit payments, net of retiree contributions, are shown by the gray area. In the first few years, there is a decline in benefit payments as a percent of payroll reflecting the lower growth in actual healthcare costs since the valuation date compared to expected payroll growth. After FYE 2015, benefit payments are expected to grow faster than payroll increasing from approximately 6.1% of payroll to 8.2% of payroll by FYE 2027 before gradually decreasing as a percent of payroll.

The yellow bars represent the City's contributions as a percent of payroll, and the teal bars represent the employee contributions as a percent of payroll. The City's contribution is based on the pay-as-you-go cost (the benefit payments) plus the contributions to the RHCTF required by Propositions B and C until the Plan is 100 percent funded or the contribution amount exceeds 10% of payroll. The Plan does not reach 100 percent funded status during the projection period and the peak contribution rate is 9.2% of payroll. As a result, there are no distributions from the RHCTF to pay benefits during the projection period.

The employee's contribution is anticipated to increase from approximately 0.4% to 1.9% of payroll by the end of the projection period. Note the employee contribution rate will eventually reach 2% of pay when all active employees are subject to the Proposition B contribution requirements.

The bright red line shows the anticipated decline in the normal cost rate based on a 7.50% discount rate as more active employees are eligible to receive the benefits defined by Proposition B.

The ARC, shown by the purple line, is projected to decrease from 16.6% of payroll in fiscal year ending June 30, 2013 to 4.9% in fiscal year ending June 30, 2033. The initial rapid reduction is a result of the plan contributions increasing such that the discount rate used to value liabilities increases from 4.45% to 7.50% for the fiscal year ending June 30, 2020. The more gradual reduction after that reflects both the declining normal cost rate and a smaller payment on the unfunded liability.



## SECTION I EXECUTIVE SUMMARY

These projections assume that all assumptions used in the actuarial valuation are exactly realized each and every year. While the assumptions represent best estimates, the future is uncertain and will not unfold exactly as expected by the assumptions. Variations in each assumption will alter these projections, but the projections are particularly sensitive to changes in healthcare trend, participation in the Plan, and payroll and membership growth. In the early years of the projection, investment returns are not significant, but as assets accumulate volatility in investment returns becomes more significant. An examination of the sensitivity of these projections to alternative scenarios will be provided separately from this valuation report.



#### SECTION II ASSETS

#### Market Value of Assets

Table II-1, below, shows the change in the value of assets through fiscal year ending 2014. The San Francisco Retiree Health Care Trust Fund (RHCTF) was established in December 2010 as an irrevocable trust. Prior to December 2010, contributions required under Proposition B were set aside and deposited into the RHCTF when it was established; these assets are treated as plan assets in the table below.

Table II-1  Market Value of Assets in Retiree Health Care Trust Fund (RHCTF)										
	F	FYE 2011 FYE 2012 FYE 2013					FYE 2014			
Market value of assets, beginning of year	\$	3,195	\$	8,542	\$	17,852	\$	31,205		
Contributions										
Employee	\$	3,518	\$	6,141	\$	8,823	\$	11,791		
Employer		1,773		3,070		4,411		5,895		
Total	\$	5,291	\$	9,211	\$	13,234	\$	17,686		
Investment earnings	\$	56	\$	144	\$	194	\$	258		
Benefit payments *	\$	0	\$	0	\$	0	\$	0		
Administrative expenses		0		(45)		(75)		(161)		
Market value of assets, end of year	\$	8,542	\$	17,852	\$	31,205	\$	48,988		

<sup>\*</sup> Benefits are not paid from the RHCTF at this time

Dollar Amounts in Thousands

For valuation purposes, the actuarial value of assets is set equal to the market value of assets.

Up to this point, assets have been invested in fixed income securities, but at its June 18, 2014 meeting the RHCTF Board adopted an asset allocation of 37 percent domestic equity, 37 percent international developed equity and 26 percent investment grade bonds. Implementation of this asset allocation is in process, and beginning July 1, 2014, it is assumed assets will earn an average of 7.50% each year.

## SECTION III DEVELOPMENT OF BLENDED DISCOUNT RATE

The discount rate used for GASB 43 and 45 disclosures is a weighted average of the expected return on Plan assets (7.50%) and the expected return on City assets (3.75%). If contributions to the Plan were equal to the Annual Required Contribution (ARC), the discount rate would be 7.50%. If contributions to the Plan were just equal to the benefit payments for the next year, the discount rate would be 3.75%. Since contributions are between these two amounts, the discount rate is a weighted average of these two discount rates where the weights reflect how close contributions are expected to be to the ARC as opposed to the benefit payments.

#### **Projected Contribution Rates**

Currently, the City pays retiree benefits from general assets and both the City and employees make contributions to the Retiree Health Care Trust Fund (RHCTF). For the fiscal years ending June 30, 2014 and June 30, 2015, employees hired after January 9, 2009 (Prop B Employees) contribute 2.0% of pay to the RHCTF and the City contributes 1.0% of Prop B Employee pay. No contributions are made by or on behalf of Pre-Prop B employees until the fiscal year ending June 30, 2017. Table III-1 below develops the projected contribution rates as a percentage of total payroll for FYE 2014 and 2015.

Table III-1 Projected City and Member Contribution Rates to RHCTF									
		FYE 2014 FYE 20							
Projected Payroll									
Pre-Prop B employees	\$	1,965,358	\$	1,937,184					
Prop B employees	=	586,403		712,309					
Total	\$	2,551,761	\$	2,649,493					
Projected Contribution Amounts *									
Employees	\$	11,791	\$	14,246					
Employer		5,895		7,123					
Total	\$	17,686	\$	21,369					
Projected Contribution Rates as a % of	Payroll								
Employees		0.46%		0.54%					
Employer		0.23%		0.27%					
Total		0.69%		0.81%					

<sup>\*</sup> Actual amounts shown in FYE 2014



## SECTION III DEVELOPMENT OF BLENDED DISCOUNT RATE

### Development of the Annual Required Contribution at Expected Return on Plan Assets

Table III-2 below shows the measures of actuarial liability and normal cost as of the valuation date based on a discount rate equal to the expected return on assets, 7.50%. These measures are the basis for the projection of the ARC for FYE 2014 and 2015.

Table III-2 Liability Measures at Expected Return on Plan Assets as of July 1, 2012										
Pre-Prop B Prop B Total										
Actuarial Liability										
Actives	\$	1,114,248	\$	13,228	\$	1,127,476				
Terminated Vested Members		257,908		0		257,908				
Retirees		1,407,945		0		1,407,945				
Total Actuarial Liability	\$	2,780,101	\$	13,228	\$	2,793,329				
Normal Cost	\$	86,919	\$	11,701	\$	98,620				
Valuation Payroll	\$	1,917,663	\$	452,689	\$	2,370,352				
Normal Cost Rate		4.53%		2.58%		4.16%				

Dollar Amounts in Thousands

The valuation payroll shown above represents the present value on July 1, 2012 of the salaries expected to be paid during FYE 2013 to employees who were active employees on the valuation date considering the probability of their terminating employment during the year due to retirement, disability, termination or death. It does not represent the total amount of payroll expected during the fiscal year.



# SECTION III DEVELOPMENT OF BLENDED DISCOUNT RATE

Table III-3 below projects the normal cost rate for FYE 2014 and 2015 by applying the Pre-Prop B and Prop B normal cost rates from the valuation to the projected payroll for Pre-Prop B and Prop B employees for FYE 2014 and 2015. Since the lower Prop B normal cost rate applies to all new employees, the aggregate normal cost rate is projected to decrease gradually as new employees replace current Pre-Prop B employees. The normal cost rate is a component of the ARC.

Table III-3 Projected Normal Cost Rates at Expected Return on Assets								
<b>J</b>		FYE 2015						
Pre-Prop B employees								
Normal Cost Rate		4.53%		4.53%				
Payroll	\$	1,965,358	\$	1,937,184				
Normal Cost	\$	89,081	\$	87,805				
Prop B employees								
Normal Cost Rate		2.58%		2.58%				
Payroll	\$	586,403	\$	712,309				
Normal Cost	\$	15,157	\$	18,411				
Total								
Normal Cost	\$	104,238	\$	106,216				
Payroll	\$	2,551,761	\$	2,649,493				
Normal Cost Rate		4.08%		4.01%				

Dollar Amounts in Thousands

The payroll shown in the table above represents the expected salaries paid during the specified fiscal years including salaries of new hires since the valuation date.



# SECTION III DEVELOPMENT OF BLENDED DISCOUNT RATE

Table III-4 below projects the Unfunded Actuarial Liability (UAL) to July 1, 2013 and July 1, 2014. The amortization payment applicable to FYE 2014 and 2015 is calculated as a rate of projected payroll (UAL Rate). The ARC is the normal cost rate, as shown previously in this report, plus the UAL rate.

Table III-4 Projected UAL Amortization Rates at Expected Return on Assets								
	FYE 2013							
Actuarial Liability, beginning of year	\$	2,793,329	\$	2,941,582				
Normal Cost		98,620		100,536				
Projected Benefit Payments		(161,324)		(163,885)				
Interest		210,957		222,125				
Actuarial Liability, end of year	\$	2,941,582	\$	3,100,358				
Market Value of Assets, beginning of year *	\$	17,852	\$	31,205				
Contributions		13,234		17,686				
Net Investment Earnings		119		97				
Market Value of Assets, end of year	\$	31,205	\$	48,988				
Projected Unfunded Actuarial Liability (UAL)	\$	2,910,377	\$	3,051,370				
Amortization Factor		18.2865		18.2865				
Projected Amortization Payment (following year)	\$	159,155	\$	166,865				
Payroll	\$	2,551,761	\$	2,649,493				
UAL Rate		6.24%		6.30%				

<sup>\*</sup> Actual market value of assets used through FYE 2014



# SECTION III DEVELOPMENT OF BLENDED DISCOUNT RATE

#### **Blended Discount Rate Calculation**

Table III-5 below combines the information developed in the tables in this section to calculate the blended discount rate. The weight given to the expected return on plan assets in the weighted average calculation is equal to the contributions to the RHCTF divided by the amount that would be contributed to the RHCTF if the full ARC had been contributed. Since this valuation is used for two fiscal years, the blended discount rate used in the valuation is the average of the blended discount rates calculated for each fiscal year.

	Table III-5 Calculation of Blended Discount Rate								
	FYE 2014 FYE 2015								
1.	Contribution Rates to RHCTF								
	Employee	0.46%	0.54%						
	Employer	0.23%	<u>0.27%</u>						
	Total	0.69%	0.81%						
	Normal Cost Rate *	4.08%	4.01%						
	UAL Rate *	6.24%	<u>6.30%</u>						
	Total ARC Rate *	10.32%	10.31%						
	Pay-As-You-Go Rate	<u>6.42%</u>	<u>6.13%</u>						
2.	Total ARC in Excess of Pay-As-You-Go	3.90%	4.18%						
3.	Weight to Expected Return on Plan Assets (1./2.)	17.77%	19.32%						
4.	Expected Return on Plan Assets	7.50%	7.50%						
5.	Expected Return on City Assets	3.75%	3.75%						
6.	Discount Rate [3. * 4. + (1 - 3.) * 5.]	4.42%	4.47%						
	Discount Rate for Valuation (average of 6.)	4.4	5%						

<sup>\*</sup> Calculated at the expected return on assets



# SECTION IV GASB VALUATION RESULTS

This section of the report provides the July 1, 2012 actuarial valuation results on a GASB basis, develops the Annual Required Contribution (ARC) under GASB 43 and 45 for the fiscal years ending June 30, 2014 and June 30, 2015, and reconciles the current valuation with the prior July 1, 2010 valuation.

Table IV-1 below compares the actuarial liability, plan assets, and unfunded actuarial liability as of July 1, 2012 to the prior valuation as of July 1, 2010.

Table IV-1 Actuarial Liability										
Valuation Date July 1, 2010 July 1, 2012										
Discount Rate		4.25%		4.45%						
Actives	\$	2,045,612	\$	1,665,912						
Terminated Vested Members		381,448		445,251						
Retirees		1,993,086	_	1,886,599						
Total Actuarial Liability	\$	4,420,146	\$	3,997,762						
Assets*		(3,195)		(17,852)						
Unfunded Actuarial Liability	\$	4,416,951	\$	3,979,910						
Funded Ratio		0.1%		0.4%						

Dollar Amounts in Thousands

The actuarial liability represents the portion of the value of projected benefits that is allocated to service earned prior to the valuation date. The unfunded actuarial liability (UAL) represents the excess of the actuarial liability over plan assets.

- HEIRON

<sup>\*</sup> Assets shown as of July 1, 2010 were set aside for the RHCTF and contributed when it was established in December 2010

## SECTION IV GASB VALUATION RESULTS

The valuation is performed as of July 1, 2012 and those results are then projected forward to the first day of the fiscal year for which the annual required contribution (ARC) is determined. In Table IV-2 below, the projection of the actuarial liability from the valuation date to the beginning of each of the next two fiscal years is shown.

Table IV-2 Projected Actuarial Liability									
· · · · · · · · · · · · · · · · · · ·		FYE 2013		FYE 2014					
Actuarial Liability, beginning of year	\$	3,997,762	\$	4,209,295					
Normal Cost		190,227		194,038					
Projected Benefit Payments		(161,324)		(163,885)					
Interest		182,630		192,146					
Actuarial Liability, end of year	\$	4,209,295	\$	4,431,594					
Assets		(31,205)		(48,988)					
Projected Unfunded Actuarial Liability (UAL)	\$	4,178,090	\$	4,382,606					
Amortization Factor		26.9791		26.9791					
UAL Rate	\$	154,864	\$	162,445					

Dollar Amounts in Thousands

The ARC consists of two parts: (1) the *employer normal cost*, which represents the annual cost attributable to service earned in a given year less employee contributions, and (2) amortization of the UAL, which is based on a rolling 30-year amortization period. Table IV-3 below shows development of the ARC for fiscal years ending June 30, 2014 and June 30, 2015.

Table IV-3 Annual Required Contribution									
FYE 2014 FYE 2015									
Total Normal Cost	\$	198,304	\$	202,190					
Less Expected Employee Contributions		(11,791)	_	(14,246)					
Employer Normal Cost	\$	186,513	\$	187,944					
Unfunded Actuarial Liability Amortization		154,864	_	162,445					
Annual Required Contribution	\$	341,377	\$	350,389					



# SECTION IV GASB VALUATION RESULTS

Table IV-4 shows the expected benefit payments, or "pay-as-you-go" costs, net of retiree contributions, for the 15 fiscal years following the valuation date. In calculating the liability of the plan, expected benefit payments are projected for the life of each existing participant.

	Table IV-4 Expected Net Benefit Payments										
Expected FYE Net Benefit FYE June 30, Payments June 30,		No	Expected et Benefit Payments	FYE June 30,	Expected Net Benefit Payments						
2013	\$	161,324	2018	\$	195,382	2023	\$	275,512			
2014		163,885	2019		210,846	2024		292,933			
2015		162,462	2020		226,788	2025		309,874			
2016		167,067	2021		243,755	2026		325,559			
2017		180,552	2022		259,670	2027		341,235			

## SECTION IV GASB VALUATION RESULTS

#### Reconciliation with Prior Results

Table IV-5 estimates the impact of the major factors contributing to the change in liability since the last actuarial valuation (July 1, 2010). Note that the expected values as of July 1, 2012 are based on assumptions and methods from the prior valuation.

	Tabl	le IV-5									
Reconciliation with Prior Results											
	Actuarial Liability July 1, 2012		Liability Liabi		% of Liability	C	tal Normal Cost as of ly 1, 2012	% of Total Normal Cost			
Expected July 1, 2012 valuation results *	\$	4,974,193		\$	235,495						
(Gain)/Loss due to:						8)					
Demographic Changes	\$	(131,296)	-3%	\$	6,740	3%					
Health Cost Changes		(838,737)	-17%		(39,892)	-17%					
Discount Rate Change from 4.25% to 4.45%		(105,288)	-2%		(8,848)	-4%					
Implementation of Proposition C		(14,879)	0%		0	0%					
Other Assumption Changes		113,769	2%		(3,268)	-1%					
Total (Gain)/Loss	\$	(976,431)	-20%	\$	(45,268)	-19%					
July 1, 2012 valuation results	\$	3,997,762		\$	190,227						

Dollar Amounts in Thousands

Below is a brief description of each of the changes shown above:

- Expected Values refer to the change that would have occurred had experience matched all the assumptions between July 1, 2010 and July 1, 2012.
- Demographic Changes refer to population changes between July 1, 2010 and July 1, 2012.
- Health Cost Changes refer to the impact of the difference between actual health care claims, expense costs and premium compared to the projected costs using the assumptions from the July 1, 2010 valuation. The claim curves were updated to reflect actual changes in utilization.
- Discount Rate Change refers to the change in discount rate from 4.25% as of July 1, 2010 to 4.45% as of July 1, 2012.
- Implementation of Proposition C refers to the benefit change removing the additional dependent subsidy and applies to vested terminated participants as of June 30, 2001, and not yet retired as of the proposition adoption date.
- Other Assumption Changes refers to all other assumption changes including changes to health care trends, wage inflation, and participation assumptions.

- HEIRON

<sup>\*</sup> Actuarial Liability as of July 1, 2010 is projected to July 1, 2012 with expected benefits earned and interest reduced by expected benefits paid. The Total Normal Cost as of July 1, 2010 is projected to July 1, 2012 with anticipated salary increases and population changes.

### SECTION V SENSITIVITY TO HEALTH CARE TREND RATES

The actuarial liability, ARC, and benefit payments produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the health care trend rates on the actuarial liability, the ARC, and the net expected benefit payments, to provide some measure of sensitivity. Since actual premiums are known through 2015, the 1% increase or decrease to the health care trend commences after December 31, 2015.

Table V-1 Actuarial Liability as of July 1, 2012 (4.45% discount rate)													
Health Care Trend Rate -1% Base 1%													
Actuarial Liability													
Actives	\$	1,399,201	\$	1,665,912	\$	2,004,869							
Terminated Vested Members		377,541		445,251		531,191							
Retirees		1,744,291		1,886,599		2,053,196							
Total Actuarial Liability	\$	3,521,033	\$	3,997,762	\$	4,589,256							
Assets		(17,852)		(17,852)		(17,852)							
Unfunded Actuarial Liability	\$	3,503,181	\$	3,979,910	\$	4,571,404							

Dollar Amounts in Thousands

Table V-2 GASB ARC – FYE 2014 (4.45% discount rate)											
Health Care Trend Rate		-1%		Base		1%					
Total Normal Cost	\$	164,406	\$	198,304	\$	242,633					
Less Employee Contribution		(11,791)		(11,791)		(11,791)					
Employer Normal Cost	\$	152,615	\$	186,513	\$	230,842					
UAL Amortization		135,168		154,864		179,380					
Total ARC	\$	287,783	\$	341,377	\$	410,222					



### SECTION V SENSITIVITY TO HEALTH CARE TREND RATES

I	Table V-3 Expected Net Benefit Payments											
Fiscal Year Ending		Health Care Trend Rate										
June 30,		-1%		Base		1%						
2013	\$	161,324	\$	161,324	\$	161,324						
2014		163,885		163,885		163,885						
2015		162,462		162,462		162,462						
2016		166,260		167,067		167,873						
2017		178,000		180,552		183,119						
2018		190,817		195,382		200,016						
2019		203,987		210,846		217,873						
2020		217,348		226,788		236,549						
2021		231,409		243,755		256,641						
2022		244,192		259,670		275,978						
2023		256,639		275,512		295,582						
2024		270,284		292,933		317,248						
2025		283,203		309,874		338,779						
2026		294,710		325,559		359,309						
2027		305,960		341,235		380,195						



#### SECTION VI ACCOUNTING DISCLOSURES

GASB Statements No. 43 and 45 establish standards for disclosure of OPEB information by governmental plans and employers in their financial statements. In accordance with those statements, we have prepared the following disclosures.

### Schedule of Funding Progress

The schedule of funding progress, Table VI-1, compares the assets used for funding purposes to the actuarial liability to determine how well the Plan is funded and how this status has changed over the past several years. The unfunded actuarial liability is compared to the covered payroll as a measure of the potential future burden on the employer.

	Table VI-1 Schedule of Funding Progress												
Actuarial Accrued Unfunded UAAL Actuarial Liability AAL Funded Covered Percents Valuation Assets (AAL) (UAAL) Ratio Payroll Covered Date (a) (b) (b-a) (a/b) (c) ((b-a)													
7/1/2006*	\$ 0	\$ 4,036,324	\$ 4,036,324	0.0%	\$ 2,066,866	195.3%							
7/1/2008* 7/1/2010**	0	4,364,273 4,420,146	4,364,273 4,420,146	0.0% 0.0%	2,296,336 2,393,930	190.1% 184.6%							
7/1/2012	17,852	3,997,762	3,979,910	0.4%	2,457,633	161.9%							

Dollar Amounts in Thousands

- HEIRON

<sup>\*</sup> Figures prior to July 1, 2010 valuation calculated by the prior actuary.

<sup>\*\*</sup> As of July 1, 2010, the City set aside approximately \$3.2 million in assets for the OPEB plan. However, the Retiree Health Care Trust Fund was not established until December 2010.

### SECTION VI ACCOUNTING DISCLOSURES

### Schedule of Employer Contributions

The schedule of employer contributions, Table VI-2, is a required disclosure under GASB 45. It compares the actual employer contributions to the Annual OPEB Cost and shows the historical trend of the Net OPEB Obligation. For this purpose, employer contributions include both the pay-as-you-go cost and contributions to the RHCTF.

Table VI-2 GASB 45 Schedule of Employer Contributions										
Annual Percentage OPEB of Fiscal Year (AOC) Amount AOC Net OPEB Ended Cost Contributed Contributed Obligation										
6/30/2010*	\$	374,214	\$	126,859	33.9%	\$ 852,782				
6/30/2011*		392,151		145,880	37.2%	1,099,177				
6/30/2012		405,850		156,252	38.5%	1,348,883				
6/30/2013		418,539		160,300	38.3%	1,607,130				
6/30/2014		353,251		166,628	47.2%	1,793,753				

Dollar Amounts in Thousands

Under GASB 43, there is a separate Schedule of Employer Contributions, Table VI-3, for the Retiree Health Care Trust Fund that compares the actual contributions to the Annual Required Contribution.

Table VI-3 GASB 43 Schedule of Employer Contributions									
Annual Percentage Required of Fiscal Year Contribution Amount ARC Ended (ARC) Contributed Contribute									
6/30/2010* 6/30/2011* 6/30/2012 6/30/2013 6/30/2014	\$	368,665 384,334 397,862 408,735 341,377	\$	126,859 145,880 156,252 160,300 166,628	34.4% 38.0% 39.3% 39.2% 48.8%				



<sup>\*</sup> Figures prior to FYE June 30, 2012 calculated by the prior actuary.

<sup>\*</sup> Figures prior to FYE June 30, 2012 calculated by the prior actuary.

### SECTION VI ACCOUNTING DISCLOSURES

Table VI-4 below shows the development of the Net OPEB Obligation (NOO) for the fiscal year ending (FYE) June 30, 2014, and projects the NOO for the fiscal year ending June 30, 2015. The FYE 2015 actual NOO will change based on the actual contributions made.

Γ	Table VI-4												
	Development of Net OPEB Obligation (NOO)												
				4	Projected								
		]	FYE 2014	F	YE 2015 *								
1.	Net OPEB Obligation/(Asset), beginning of year	\$	1,607,130	\$	1,793,753								
2.	Annual Required Contribution for FYE	\$	341,377	\$	350,389								
3.	Interest on Net OPEB Obligation/(Asset)		71,444		79,741								
4.	Adjustment to Annual Required Contribution		59,570		66,487								
5.	Annual OPEB Cost (2.) + (3.) - (4.)		353,251		363,643								
6.	Employer Contributions												
	a. Contributions to RHTF	\$	5,895	\$	7,123								
	b. Benefit Payments		160,733		162,462								
	c. Total	\$	166,628	\$	169,585								
7.	Net OPEB Obligation/(Asset), end of year												
	(1.) + (5.) - (6c.)	\$	1,793,753	\$	1,987,811								



<sup>\*</sup> Estimated values are shown in italics

#### SECTION VI ACCOUNTING DISCLOSURES

The Note to Required Supplementary Information shown in Table VI-5 provides additional disclosure information for the financial statements.

Table VI-5
NOTE TO REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

Valuation Date July 1, 2012

Actuarial Cost Method Entry Age Normal

Amortization Method Level Percent of Pay

Amortization Period Rolling 30 years

Asset Valuation Method Market Value

Actuarial Assumptions:

Discount Rate 4.45%
Total Payroll Growth 3.83%
Ultimate Rate of Medical Inflation 4.50%
Years to Ultimate Rate 18



# APPENDIX A PARTICIPANT DATA

### Participant Data:

The following table compares key statistics from the current to the previous valuation.

Schedule of Valuation Data											
Valuation Date	July 1, 2010	July 1, 2012	% Change								
Active Employees											
Count	27,378	27,764	1%								
Average Age	47.9	47.5	-1%								
Average Service	13.5	11.9	-12%								
Total Payroll	\$ 2,303,649,881	\$2,457,633,410	7%								
In-Pay Participants with Coverage*			i								
Count	23,511	24,515	4%								
Average Age	69.8	69.5	0%								
Vested, Terminated Members			a								
Count	1,509	2,134	41%								
Average Age	48.0	48.7	1%								

<sup>\*</sup> Includes spouses and domestic partners

The following table provides a summary of Active employees by age and service as of the current valuation date.

	Active Employees by Age and Service As of July 1, 2012												
Age	Age Years of Service												
Group	< 5	5-9	10-14	15-19	20-24	25-29	30+	Total					
Under 25	198	5	0	0	0	0	0	203					
25 to 29	1,069	235	3	0	0	0	0	1,307					
30 to 34	1,459	775	185	3	0	0	0	2,422					
35 to 39	1,208	887	741	149	3	0	0	2,988					
40 to 44	1,090	909	1,248	596	177	14	0	4,034					
45 to 49	984	792	1,254	<b>8</b> 11	548	162	20	4,571					
50 to 54	821	672	1,075	682	761	567	300	4,878					
55 to 59	578	524	904	560	630	592	480	4,268					
60 to 64	278	312	494	328	310	287	326	2,335					
Over 65	103	137	165	112	87	71	83	758					
Total	7,788	5,248	6,069	3,241	2,516	1,693	1,209	27,764					

# APPENDIX A PARTICIPANT DATA

Key statistics for active participants by employee group are provided as of the valuation date in the following table.

	Active Employees by Employee Group As of July 1, 2012												
	Police	Fire	Muni	Craft	Misc.	Total							
Hired On or Before January 9, 2009													
Count	1,993	1,272	1,716	2,783	14,404	22,168							
Average age	44.2	45.6	50.6	52.2	49.5	49.2							
Average service	15.7	15.5	13.7	15.6	14.0	14.4							
Total Payroll (\$000's)	\$275,622	\$186,653	\$127,918	\$240,441	\$1,228,155	\$2,058,789							
Hired On or After Jan	uary 10, 2009												
Count	132	69	424	409	4,562	5,596							
Average age	31.6	35.5	40.9	43.4	41.0	40.9							
Average service	1.5	1.8	1.7	1.6	1.7	1.7							
Total Payroll (\$000's)	\$13,014	\$6,435	\$26,488	\$31,410	\$321,498	\$398,845							
Total Actives													
Count	2,125	1,341	2,140	3,192	18,966	27,764							
Average age	43.4	= 45.1	48.7	51.0	47.5	47.5							
Average service	14.8	14.8	11.3	13.8	11.1	11.9							
Total Payroll (\$000's)	\$288,636	\$193,088	\$154,406	\$271,851	\$1,549,653	\$2,457,633							



# APPENDIX A PARTICIPANT DATA

A schedule of inactive participants by status and age group is shown below.

Inactive Participants by Status and Age Group As of July 1, 2012							
Age	Disabled			Term			
Group	Retiree	Retiree	Survivor	Vested	Total		
Under 40	5	0	3	252	260		
40 to 44	17	5	16	414	452		
45 to 49	61	14	21	583	679		
50 to 54	135	441	46	383	1,005		
55 to 59	277	1,403	98	289	2,067		
60 to 64	497	3,047	193	164	3,901		
65 to 69	49	3,548	252	28	3,877		
70 to 74	4	2,730	278	10	3,022		
75 to 79	1	1,825	334	7	2,167		
80 to 84	0	1,257	417	1	1,675		
85 to 90	0	810	418	2	1,230		
Over 90	0	399	290	1	690		
Total	1,046	15,479	2,366	2,134	21,025		

Shown below is the distribution of medical plan elections for participants currently receiving a benefit from the Plan.

Medical Plan Elections for In-Pay Participants * As of July 1, 2012							
	Pre-Medicare Medicare Eligible						
	Retirees	Spouses		Retirees	Spouses	······································	
	&	&		&	&		
	Surviving	Domestic		Surviving	Domestic		
Medical Plan	Spouses	Partners	Total	Spouses	Partners	Total	
Blue Shield	2,703	1,171	3,874	2,990	705	3,695	
City Health Plan	850	336	1,186	3,944	885	4,829	
Kaiser	2,726	1,168	3,894	5,678	1,359	7,037	
Total	6,279	2,675	8,954	12,612	2,949	15,561	

<sup>\*</sup> Assumes Medicare eligibility at age 65. Does not include waived and exempt retired participants.



# APPENDIX B ASSUMPTIONS AND METHODS

### Economic Assumptions:

1. Expected Return on Plan Assets: 7.50% per year, net of expenses

2. Expected Return on City Assets: 3.75% per year, net of expenses

3. Blended Discount Rate for Valuation Purposes: 4.45% per year

4. Consumer Price Inflation: 3.33% per year

5. Per Person Cost Trends:

Annual Increases							
To Year		Medical & Rx					
Beginning	10-County	Pre-Medicare	Medicare	Vision /			
January 1	Trend	Pre-iviedicare	Eligible	Expense			
2013		Actual Prem	iums Used				
2014		Actual Prem	iums Used	•			
2015		Actual Prem	iums Used				
2016	6.00%	8.00%	6.50%	3.50%			
2017	5.89	7.75	6.36	3.50			
2018	5.79	7.50	6.21	3.50			
2019	5.68	7.25	6.07	3.50			
2020	5.57	7.00	5.93	3.50			
2021	5.46	6.75	5.79	3.50			
2022	5.36	6.50	5.64	3.50			
2023	5.25	6.25	5.50	3.50			
2024	5.14	6.00	5.36	3.50			
2025	5.04	5.75	5.21	3.50			
2026	4.93	5.50	5.07	3.50			
2027	4.82	5.25	4.93	3.50			
2028	4.71	5.00	4.79	3.50			
2029	<b>4.6</b> 1	4.75	4.64	3.50			
2030+	4.50	4.50	4.50	3.50			

- Deductibles, Co-payments, Out-of-Pocket Maximums, and Annual Maximum are assumed to increase at the above trend rates.
- A load of 2.5% in FYE 2019 and 0.5% in FYE 2020 was added to the Pre-Medicare medical trend to account for Healthcare Reform.

-CHEIRON

# APPENDIX B ASSUMPTIONS AND METHODS

### Demographic Assumptions:

### 1. Retirement Rates:

Rates of retirement are based on age and service according to the following tables.

Eligible deferred vested members are assumed to retire at age 55, or current age if older. Any deferred vested member hired on or after January 10, 2009 is assumed to retire outside of the 180-day retirement window set in place by Proposition B (passed 6/3/2008).

	Rates of Retirement by Age and Service 29 Years of Service or less (24 or less for Safety)							
Age	Police	Fire	Muni Drivers	Craft	Misc. Females	Misc. Males		
50	0.0150	0.0200	0.0700	0.0300	0.0300	0.0300		
51	0.0150	0.0100	0.0250	0.0250	0.0250	0.0250		
52	0.0150	0.0100	0.0250	0.0250	0.0250	0.0250		
53	0.0300	0.0100	0.0500	0.0400	0.0400	0.0400		
54	0.0300	0.0100	0.0500	0.0400	0.0400	0.0400		
55	0.1000	0.0300	0.0600	0.0500	0.0400	0.0400		
56	0.1000	0.0300	0.0600	0.0500	0.0450	0.0450		
57	0.1000	0.0300	0.1000	0.0500	0.0500	0.0500		
58	0.1000	0.0500	0.1000	0.0500	0.0600	0.0600		
59	0.1000	0.1000	0.1000	0.0750	0.0750	0.0750		
60	0.1000	0.2500	0.1000	0.1000	0.1100	0.1100		
61	0.1000	0.2500	0.1250	0.1300	0.1400	0.1400		
62	0.3000	0.2500	0.2500	0.2250	0.2250	0.2250		
63	0.1000	0.2500	0.2000	0.1750	0.1750	0.1750		
64	0.1000	0.2500	0.2000	0.1750	0.1750	0.1750		
65	1.0000	1.0000	0.2500	0.2750	0.2250	0.2250		
66	1.0000	1.0000	0.2500	0.2750	0.2250	0.2250		
67	1.0000	1.0000	0.2500	0.1750	0.2000	0.2000		
68	1.0000	1.0000	0.2500	0.1750	0.2000	0.2000		
69	1.0000	1.0000	0.2500	0.1750	0.2000	0.2000		
70 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		



# APPENDIX B ASSUMPTIONS AND METHODS

### Rates of Retirement by Age and Service 30 Years of Service or more (25 or more for Safety)

	30 Years of Service or more (25 or more for Safety)							
Age	Police	Fire	Muni Drivers	Craft	Misc. Females	Misc. Males		
50	0.0300	0.0200	0.0300	0.0300	0.0300	0.0300		
51	0.0300	0.0200	0.0300	0.0300	0.0300	0.0300		
52	0.0400	0.0200	0.0300	0.0300	0.0300	0.0300		
53	0.0700	0.1000	0.0300	0.0300	0.0300	0.0300		
54	0.1000	0.2000	0.0300	0.0300	0.0750	0.0300		
55	0.1200	0.2250	0.3000	0.0750	0.0750	0.0750		
56	0.1400	0.2250	0.3000	0.0750	0.0750	0.0750		
57	0.1600	0.2250	0.3000	0.0750	0.0750	0.0750		
58	0.1800	0.2500	0.3000	0.1500	0.1250	0.1200		
59	0.2000	0.3000	0.3000	0.3000	0.1750	0.1500		
60	0.2200	0.3500	0.3000	0.3000	0.2500	0.3000		
61	0.2500	0.4000	0.3000	0.3000	0.2500	0.3000		
62	0.2500	0.4000	0.3500	0.3500	0.3750	0.3500		
63	0.2500	0.3000	0.3000	0.3000	0.2500	0.2500		
64	0.2500	0.3000	0.3000	0.3000	0.2500	0.2500		
65	1.0000	1.0000	0.4500	0.3000	0.3750	0.2500		
66	1.0000	1.0000	0.4500	0.3000	0.3750	0.2500		
67	1.0000	1.0000	0.4500	0.3000	0.3750	0.2500		
68	1.0000	1.0000	0.4500	0.3000	0.3750	0.2500		
69	1.0000	1.0000	0.4500	0.3000	0.3750	0.2500		
70 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		

# APPENDIX B ASSUMPTIONS AND METHODS

### 2. Termination Rates:

Sample rates of termination of employment for all employee groups (excluding Miscellaneous members) are shown in the following table.

Rates of Termination Non-Miscellaneous Members							
Service	Police	Fire	Muni Drivers	Craft			
0	10.00%	4.00%	12.00%	8.00%			
1	4.00	1.50	6.00	7.00			
2	2.00	1.50	5.00	6.00			
3	2.00	1.50	4.00	5.00			
4	2.00	1.50	3.50	4.00			
5	1.00	1.50	3.25	3.25			
6	1.00	1.00	3.00	2.75			
7	1.00	1.00	3.00	2.50			
.8	1.00	1.00	3.00	2.25			
9	1.00	1.00	3.00	2.00			
10	1.00	1.00	3.00	1.75			
11	1.00	0.50	3.00	1.75			
12	1.00	0.50	3.00	1.75			
13	1.00	0.50	3.00	1.75			
14	1.00	0.50	3.00	1.75			
15	1.00	0.50	3.00	1.75			
16	0.50	0.50	3.00	1.75			
17	0.50	0.50	3.00	1.75			
18	0.50	0.20	3.00	1.75			
19	0.50	0.10	3.00	1.75			
20	0.50	0.05	3.00	1.75			
21	0.00	0.00	3.00	1.75			
22	0.00	0.00	0.00	1.75			
23	0.00	0.00	0.00	0.00			

<sup>\*</sup> Termination rates do not apply once a member is eligible for retirement.



# APPENDIX B ASSUMPTIONS AND METHODS

Sample rates of termination by age and service for Miscellaneous members are shown in the following table.

Rates of Termination Miscellaneous Members						
	Y	ears of Service	}			
Age	0	3	5+			
20	37.50%	12.00%	6.50%			
25	27.50	9.00	6.50			
30	24.00	9.00	5.50			
35	20.00	7.00	4.25			
40	17.50	6.00	3.00			
45	15.00	4.50	2.50			
-50	15.00	4.50	2.60			
55	15.00	4.50	3.15			
60	15.00	4.50	4.00			
65	15.00	4.50	4.00			

### 3. Member Refunds:

The rates of refund of contributions for terminated vested members are presented in the table below.

Vested Terminated Rates of Refund						
Age Police / Fire Miscellaneous						
Under 25	100%	70%				
25	75	55				
30	50	40				
35	30	35				
40	20	30				
45	10	20				
50 & over	0	0				



## APPENDIX B ASSUMPTIONS AND METHODS

### 4. Mortality Rates:

Healthy Lives:

Mortality rates for actives, retirees, beneficiaries, and terminated vested participants are based on the sex distinct RP-2000 Mortality Tables. To reflect mortality improvements since the date of the table, for active females, the Employee table is projected to 2030 and for active males to 2005, both using Scale AA. For female and male annuitants, the Annuitant table is projected to 2020 using Scale AA.

	Rates of Mortality for Actives and Annuitants Healthy Lives at Selected Ages						
	Act	ives		Annu	itants		
Age	Male	Female	Age	Male	Female		
25	0.036%	0.014%	50	0.372%	0.166%		
30	0.043	0.020	55	0.402	0.301		
35	0.075	0.034	60	0.594	0.561		
40	0.104	0.045	65	1.012	0.938		
45	0.141	0.069	70	1.641	1.515		
50	0.195	0.100	75	2.854	2.394		
55	0.275	0.199	80	5.265	3.987		
60	0.450	0.338	85	9.624	6.866		
65	0.706	0.501	90	16.928	12.400		
70	0.920	0.655	95	25.699	18.688		
			100	33.773	23.276		

For active members, 25% of Safety deaths and 0% of Miscellaneous deaths are assumed to be duty-related.



# APPENDIX B ASSUMPTIONS AND METHODS

#### Disabled Lives:

The following provides a sample of the mortality rates for members with disability retirement.

	Rates of Mortality for Disabled Lives at Selected Ages						
	Police a	nd Fire		All Misco	ellaneous		
Age	Male	Female	Age	Male	Female		
50	0.40%	0.33%	50	1.63%	1.11%		
55	0.53	0.50	55	1.94	1.56		
60	0.74	0.74	60	2.29	1.61		
65	1.26	1.09	65	3.17	1.80		
70	2.04	1.59	70	3.87	2.84		
75	3.18	2.47	75	6.00	3.65		
80	6.09	4.08	80	8.39	5.23		
85	10.80	7.16	85	14.04	8.42		
90	15.09	12.35	90	21.55	14.14		
95	23.77	21.24	95	31.03	20.92		
100	37.44	32.55	100	45.91	34.18		

For Safety members, all disabilities are assumed to be duty-related. Therefore, all deaths of disabled Safety members are assumed to generate duty death benefits.

### 5. Disability Rates:

Sample disability rates of active participants are provided in the following table. All Safety and no Miscellaneous disabilities are assumed to be duty-related.

	Rates of Disability at Selected Ages							
Age	Police	Fire	Muni Drivers	Craft	Misc. Females	Misc. Males		
30	0.05%	0.06%	0.01%	0.01%	0.01%	0.01%		
35	0.09	0.15	0.06	0.06	0.05	0.04		
40	0.16	0.38	0.11	0.12	0.10	0.08		
45	0.37	0.60	0.17	0.24	0.28	0.11		
50	0.79	1.20	0.75	0.44	0.55	0.30		
55	3.00	5.00	1.20	0.64	0.60	0.42		
60	6.10	12.75	0.00	0.00	0.00	0.00		
65	7.50	15.00	0.00	0.00	0.00	0.00		



# APPENDIX B ASSUMPTIONS AND METHODS

### 6. Salary Increase Rate:

Wage inflation component: 3.83%

The additional merit component:

	Salary Merit Increases							
Service	Police	Fire	Muni Drivers	Craft	Misc.			
1	11.00%	15.00%	15.00%	4.50%	7.00%			
2	8.50	8.00	10.00	3.25	5.25			
3	6.50	6.00	2.00	2.50	4.00			
4	4.50	4.25	1.00	2.00	3.00			
5	3.25	3.00	0.00	1.50	2.50			
6	2.30	2.30	0.00	1.25	2.00			
7	1.95	1.95	0.00	1.00	1.75			
8	1.70	1.70	0.00	0.90	1.65			
9	1.50	1.50	0.00	0.85	1.45			
10	1.50	1.50	0.00	0.85	1.30			
11	1.50	1.50	0.00	0.85	1.20			
12	1.50	1.50	0.00	0.85	1.15			
13	1.50	1.50	0.00	0.85	1.10			
14	1.50	1.50	0.00	0.85	1.05			
15 & over	1.50	1.50	0.00	0.85	1.00			

### 7. Percent of Retirees Electing Coverage:

Future eligible retirees are assumed to elect coverage at retirement at the following rates, which vary by vesting level and Medicare eligibility.

Percent of Retirees Electing Coverage					
	Vesting Level				
	0%	50%	75%	100%	
Pre-Medicare	15%	75%	85%	94%	
Medicare Eligible	15%	50%	80%	94%	

Participants currently receiving benefits are assumed to keep their current coverage.



## APPENDIX B ASSUMPTIONS AND METHODS

### 8. Medical Plan Election:

Future retirees' plan elections are assumed to mirror current retiree plan elections. The following rates are used to determine blended claims and contributions for future retirees.

Assumed Plan Elections for Future Retirees			
Medical Plan	Election		
Blue Shield	45%		
City Health Plan	5%		
Kaiser	50%		

Participants currently receiving benefits are assumed to continue participation in their current medical plan.

### 9. Medicare Participation:

All in-pay participants, both current and future, are assumed to be eligible for and elect into Medicare at age 65. All participants under age 65 and currently on Medicare are assumed not to be on Medicare until age 65.

### 10. Coverage Elections for Spouses and Domestic Partners:

The percentage of future non-disabled retirees who elect to cover a spouse or domestic partner is shown in the following table.

Spousal Coverage Elections Non-Disabled Participants					
	Vesting Level				
	0%	50%	75%	100%	
Pre-Medicare	75%	40%	35%	35%	
Medicare Eligible	35%	35%	35%	35%	

The percentage of future disabled retirees who elect to cover a spouse or domestic partner is shown in the following table.

Spousal Coverage Elections Disabled Participants	
	Election
Before Age 65	25%
After Age 65	35%

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# APPENDIX B ASSUMPTIONS AND METHODS

Actual spouse/domestic partner coverage data is used for participants currently receiving a benefit.

The cost for children is fully paid for by the member. No additional load was added for children.

## 11. Dependent Age:

For participants currently receiving a benefit, actual spouse date of birth is used if available. Otherwise, spouses and domestic partners of male members are assumed to be three-years younger than the member and spouses and domestic partners of female members are assumed to be three-years older than the member.

### 12. Future Service Accruals:

Actives are assumed to accrue a full year of credited service each year.

### 13. Surviving Spouse Participation:

100% of surviving spouses continue coverage.



# APPENDIX B ASSUMPTIONS AND METHODS

## Claim and Expense Assumptions:

1. Average Annual Claims Assumptions: The following claim assumptions are applicable to the 12-month plan year beginning July 1, 2012, and are based on the premiums in effect on the valuation date. Subsequent years' costs are based on actual premiums when available, then adjusted with trends previously listed.

			F	or the			ims and Ex 1, 2012 to	-	nses ine 30, 2013			
	Blue	Shield				C	ity Plan				iser	
Age	Medical	Admin		M	edical		Rx		Admin	Medical & Rx	Admin	Vision
40	\$ 5,458	\$ 19	9	\$	6,946	\$	1,384	\$	526	\$ 4,660	\$ 19	\$ 45
45	6,158	19	9		7,554		1,763		526	5,258	19	45
50	7,644	19	9		9,117		2,373		526	6,527	19	45
55	9,509	19	9		11,125		3,104		526	8,118	19	45
60	11,805	19	9		13,775		3,880		526	10,079	19	45
64	13,999	19	9		16,684		4,353		526	11,952	19	45
65	3,903	19	9		1,511		1,827		414	3,508	19	45
70	4,354	1	9		1,792		2,024		414	3,914	19	45
75	4,645	1	9		2,078		2,139		414	4,176	19	45
80	4,758	15	9		2,264		2,173		414	4,277	19	45
85	4,697	15	9		2,326		2,133		414	4,222	19	45

- 2. Dental, Vision, and Expense: These benefits are assumed to have no implied subsidy cost.
- 3. Medicare Part D Subsidy: Per GASB guidance, the Part D Subsidy has not been reflected in this valuation. As of 2013, the City and County's PPO Rx plan switched to an EGWP plan.
- 4. Annual Limits: Assumed to increase at the same rate as trend.
- 5. Lifetime Maximums: Unlimited.
- 6. Geography: Implicitly assumed to remain the same as current retirees.



# APPENDIX B ASSUMPTIONS AND METHODS

### Methodology:

The Entry Age Actuarial Cost Method was used to measure the Plan's actuarial liability and normal cost. Under this method, the normal cost rate is the percentage of pay contribution that is expected to be sufficient to fund the Plan benefits if it were paid from each member's hire date at the City until termination or retirement.

A normal cost rate is determined for each individual by taking the value, as of age at entry into the Plan, of the member's projected future benefits and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

The actuarial liability is that portion of the present value of projected benefits that is not expected to be paid by future normal costs. The difference between the actuarial liability and the market value of assets accumulated as of the same date is the unfunded actuarial liability. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. The unfunded actuarial liability is amortized over a rolling 30-year period as a level percent of pay.

The discount rate used for valuation purposes is a weighted average of the expected return on Plan assets and the expected return on City assets. In order to calculate the weighted average, the total Annual Required Contribution (ARC), including employee contributions, is determined using the expected return on Plan assets as the discount rate. The weight assigned to the expected return on Plan assets is equal to (1) the estimated employee and City contributions in excess of expected benefit payments divided by (2) the ARC on this basis in excess of expected benefit payments for the fiscal year. Since this valuation is used for two fiscal years, the valuation discount rate is an average of the weighted average discount rates calculated for the two fiscal years.

The medical claims costs were developed based on actual premiums for the six months ending December 31, 2012 and calendar year 2013 for the HMO plans and actual rates for the six months ending December 31, 2012 and calendar year 2013 for the City Plan. For Non-Medicare adults, the premiums (or rates, as applicable) for active employee only, first dependent of active employee, Non-Medicare retiree, and first dependent of Non-Medicare retirees were blended based upon enrollment data for the period July 1, 2011 to June 30, 2012. The same process was used for Medicare adults, except only Medicare retirees and first dependents of Medicare retirees were included. The resulting per person per month (PPPM) cost was then adjusted using age curves. Expenses and vision costs were based directly on the rates in effect for 2012-2013.

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# APPENDIX B ASSUMPTIONS AND METHODS

## Changes Since Last Valuation:

The expected return on Plan assets was established for this valuation based on the asset allocation adopted by the RHCTF and the capital market assumptions of their investment consultant.

The expected return on City assets was reduced from 4.25% to 3.75%.

The methodology to determine the discount rate was established this year.

The wage inflation and the consumer price inflation assumptions were reduced from 4.00% and 3.50% to 3.83% and 3.33% respectively to align with the City and County of San Francisco Employees' Retirement System assumptions.

Per person healthcare cost trends were updated to reflect known premium increases through calendar year 2015, higher trends starting for calendar year 2016, and grading down to an ultimate trend rate beginning in 2030 of 4.50% compared to 4.75% in the prior valuation. Vision and expense trends were increased from 3.0% to 3.5%.

The percent of retirees electing coverage was reduced for vesting levels less than 100%. The percentage of future retirees also electing to cover a spouse or domestic partner was also updated to reflect recent and anticipated experience for retirees with a vesting level of less than 100%.

Average annual claims assumptions by age were updated to reflect recent experience.



# APPENDIX C SUBSTANTIVE PLAN PROVISIONS

### Eligibility:

Permanent full-time and elected employees are eligible to retire and receive postretirement health insurance benefits when they are eligible for retirement benefits from the City and County of San Francisco's Retirement System. Certain members of the California Public Employees Retirement System and certain court employees are also eligible for benefits from the City. Employees of the San Francisco Unified School District and the San Francisco Community College District are not included in the retiree medical plan. The eligibility requirements are as follows:

City and County of San Francisco's Retirement System (SFERS)

Normal Retirement Miscellaneous Age 50 with 20 years of credited service

Age 60 with 10 years of credited service

Safety Age 50 with 5 years of credited service

Disabled Retirement Any age with 10 years of credited service

Terminated Vested<sup>2</sup> Age 50 with 5 years of credited service at separation

Active Death Any age with 10 years of credited service

### California Public Employees Retirement System (CalPERS)

A small group of currently active employees, previously considered a State Agency, have been shifted to the City's responsibility. This group is subject to CalPERS retirement criteria (age 50 and 5 years of credited service).

#### Courts

Members separated as of January 1, 2001 are the responsibility of the City and County of San Francisco. These participants are subject to the eligibility requirements of SFERS.

### Benefits for Retirees:

Medical:

PPO – City Health Plan (self-insured)

HMO – Kaiser (fully-insured) and Blue Shield (flex-funded)

Dental:

Delta Dental & DeltaCare USA

Vision:

Vision benefits are provided under the medical insurance plans and are

administered by Vision Service Plan.

No service requirement for members retiring under the disability benefit or for surviving spouses/domestic partners of those killed in the line of duty.

For participants hired on or after January 10, 2009, participant must retire within 180 days of separation in order to be eligible for retiree healthcare benefits from the City.

## APPENDIX C SUBSTANTIVE PLAN PROVISIONS

Premiums: Monthly premiums for July 1, 2012 through December 31, 2015 are as follows. Participants in the California Superior Courts, the San Francisco Unified School District, and the San Francisco Community College District are allowed to participate in these plans as active

employees.

Medical Pr	emiu				s*			
0.0		Pre-M	edic	are		Medicar	e El	
		Single		Dual		Single	<del></del> .	Dual
July 1, 2012 – December 31, 2012								
Active								
Blue Shield	\$	608.42	\$	1,215.87		N/A		N/A
City Plan		1,237.46		2,431.13		N/A		N/A
Kaiser		530.01		1,059.00		N/A		N/A
Retiree								
Blue Shield	\$	1,350.87	\$	1,958.31	\$	405.82	\$	810.63
City Plan		1,427.03		2,810.25		375.14		715.91
Kaiser		1,064.98		1,593.97		334.42		667.82
January 1, 2013 – December 31, 2013								
Active								
Blue Shield	\$	647.16	\$	1,292.31		N/A		N/A
City Plan		1,258.97		2,473.63		N/A		N/A
Kaiser		537.02		1,072.01		N/A		N/A
Retiree								
Blue Shield	\$	1,435.98	\$	2,081.14	\$	363.30	\$	724.57
City Plan		1,466.49		2,888.64		374.49		714.02
Kaiser		1,078.10		1,613.09		335.43		668.83
January 1, 2014 – December 31, 2014								
Active								
Blue Shield	\$	647.37	\$	1,292.73		N/A		N/A
City Plan		1,227.55		2,412.45		N/A		N/A
Kaiser		565.11		1,128.19		N/A		N/A
Retiree								
Blue Shield	\$	1,436.19	\$	2,081.56	\$	384.60	\$	767.17
City Plan		1,428.97		2,815.25		364.18		694.66
Kaiser		1,134.67		1,697.75		352.49		702.95
January 1, 2015 – December 31, 2015								
Active								
Blue Shield **	\$	673.02	\$	1,344.04		N/A		N/A
City Plan		1,012.41		1,987.35		N/A		N/A
Kaiser		553.98		1,105.93		N/A		N/A
Retiree								
Blue Shield	\$	1,493.40	\$	2,164.42	\$	384.60	\$	767.17
City Plan		1,185.63		2,333.77		271.86		519.47
Kaiser		1,112.15		1,664.10		336.56		671.07

<sup>\*</sup> Includes Rx, vision, and expense. Plan start date shifts from July 1 to January 1 as of January 1, 2013.



<sup>\*\*</sup> Active 2015 Blue Shield premium shown excludes buy-down amounts of \$25.65 for Single and \$51.31 for Dual.

## APPENDIX C SUBSTANTIVE PLAN PROVISIONS

Plan Last Modified	7/1/2012	7/1/2012	7/1/2012	7/1/2012	
Plan:	Blue Shield Access+ (HMO)	Blue Shield 65 Plus (HMO)	City Health Plan (PPO)	Kaiser (HMO)	
In-Network (INN) Benefits	ta kute prili di				
Deductible (Individual / Family) Coinsurance	None N/A	None N/A	\$250 / \$750 15%	None N/A	
Out-of-Pocket Max (Individual / Family)	\$2,000 / \$4,000	\$6,700 (Part A&B services)	\$3,750 per person	\$1,500 / \$3,000	
Copays					
Preventive Care	Fully Covered	Fully Covered	Fully Covered	Fully Covered	
Office Visit (OV) - Primary Care (PCP)	\$25 per visit	\$25 per visit	DC <sup>1</sup>	\$20 per visit	
OV - Specialist Care Provider (SCP)	\$30 per visit	\$25 per visit	$DC_1$	\$20 per visit	
Hospital Emergency Room (ER)	\$100 per visit	\$100 per visit	$DC^1$	\$100 per visit	
Outpatient Surgery	\$100 per surgery	\$100 per surgery	$DC^1$	\$35 per surgery	
Hospital Inpatient	\$200 per admission	\$200 per admission	$DC^1$	\$100 per admission	
Lifetime Max	Unlimited	Unlimited	Unlimited	Unlimited	
Out-of-Network (OON) Benefits Deductible (Individual / Family) Coinsurance	Not Covered	Not Covered	\$250 / \$750 50%	Not Covered	
Office Visits (PCP) & (SCP)			$DC^1$		
Out-of-Pocket Max (Individual / Family) Lifetime Max			\$7,500 per person Unlimited		
Prescription Drugs					
Retail (30 Days) - Generic/Formulary/Non- Form	\$10/\$25/\$50	\$10 / \$25 / \$50	\$5 / \$20 / \$40 (OON then 50% coins)	\$5/\$15/\$15	
Mail Order (90 Days) - Generic/Form./Non-Form	\$20 / \$50 / \$100	\$20 / \$50 / \$100 (OON \$30 / \$75 / \$150)	\$10 / \$40 / \$90 (OON no coverage)	\$10/\$30/\$30	
Specialty Pharmacy	20% of script up to \$100	20% of script up to \$300 (includes injectibles)	Same as Mail/Retail	N/A	
Mental Health and Substance Abuse					
Mental Health Inpatient	\$200 per admission	\$200 per admission	$DC^1$	\$100 per admission	
Mental Health Outpatient	\$25 per visit	\$25 per visit	$DC^1$	\$20 per visit	
Substance Abuse Inpatient	\$200 per admission	\$200 per admission	$DC^1$	\$100 per admission	
Substance Abuse Outpatient	\$25 per visit	\$25 per visit	$DC^1$	\$20 per visit	
Detail Benefits		Maria de la Horitaga de la Caractería			
Chiropractic Benefit	\$15 per visit (30 visit limit)	\$20 per visit	Deductible and 50% Coins.	\$20 per visit	
Rehab (speech, occupational, physical)	\$25 per visit	\$25 per visit	$DC^1$	\$20 per visit	
Hearing Aids	\$2500 for 36 mos.	\$2500 for 36 mos.	\$2500 for 36 mos.	\$2500 for 36 mos.	
Durable Medical Equipment	Fully Covered	Fully Covered	Fully Covered	Fully Covered	
Medical Management	PCP referral required	PCP referral required	Required on Some Services	PCP referral required	
Medicare Integration	N/A	Medicare Advantage & Coordination of Benefits		Medicare Advantage & Coordination of Benefits	
Vision Care Services	Not Covered	Not Covered	Not Covered	Not Covered	

<sup>&</sup>lt;sup>1</sup> DC = Deductible and coinsurance applies

In 2013, the City's PPO plan adopted an Employee Group Waiver Plan (EGWP). This change was incorporated into the actual trends used in our claim curves.



## APPENDIX C SUBSTANTIVE PLAN PROVISIONS

## Cost Sharing Provisions:

Medical & Vision: Members are required to pay the difference between the cost of coverage

and the City contribution.

Dental Coverage: Retirees pay the full cost of dental coverage offered by the City for

themselves and their dependents.

City Contribution: The City pays a portion of the retiree or spouse/domestic partner premium as detailed in the following table with the vesting schedule also applied. The City's contribution is limited by the premium. Medicare Part B premiums are the responsibility of the retiree.

City Contribution*						
Pre-Medicare:						
Retiree/Surviving Spouse	Single Retiree Premium less 50% of the amount the Single Active Premium exceeds the 10-County Amount					
Spouse/Domestic Partner	50% of the difference between the Single and Dual Retiree Coverage Premiums					
Child	None					
Medicare Eligible:						
Retiree/Surviving Spouse	100% of Single Retiree Premium, up to the 10- County Amount					
Spouse/Domestic Partner	50% of the difference between the Single and Dual Retiree Coverage Premiums					
Child	None					

<sup>\*</sup> For participants terminated on or before 6/30/2001 and not yet retired, Proposition C (passed 11/8/2011) removes the additional City Contribution put in place by Proposition E (passed 11/7/2000), which decreased the amount the retiree pays for single or dual coverage by half.

Vesting Schedule (based on years of service)*	
Hired on or before January 9, 2009 (with 5 years)	100%
Hired on or after January 10, 2009	
Under 10 years	0%
10 to 15 years	50%
15 to 20 years	75%
Over 20 years	100%

<sup>\*</sup> Proposition B, passed 6/3/2008, introducing this vesting schedule to the postretirement health benefit plan. Participants retiring under disability or benefiting under the active death benefit receive 100% of the City Contribution, regardless of hire date and service.

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# APPENDIX C SUBSTANTIVE PLAN PROVISIONS

10-County Amount: The 10-County Amount (historical amounts are listed in the table below) is the average of the monthly employer contribution in the ten most populous counties in California (other than San Francisco).

10-County Amount					
Period Ending					
December 31, 2012	\$ 522.97				
December 31, 2013	534.78				
December 31, 2014	559.65				
December 31, 2015	567.80				

### **Retiree Health Care Trust Fund Contributions:**

Employees hired before January 10, 2009: Once there is no unfunded actuarial liability, employees contribute the lesser of 50% of the normal cost or 1% of payroll and the employer contributes the remainder of the normal cost. Prior to becoming fully funded, employee and employer contributions are the lesser of 100% of normal cost or as follows:

RHCTF Contribution Schedule Employees Hired Before January 10, 2009					
FYE	Employee	Employer			
2016 and Earlier	0.00%	0.00%			
2017	0.25%	0.25%			
2018	0.50%	0.50%			
2019	0.75%	0.75%			
2020 and later	1.00%	1.00%			

Employees hired on or after January 10, 2009: Once there is no unfunded actuarial liability, employees contribute the lesser of 50% of the normal cost or 2% of payroll and the employer contributes the remainder of the normal cost. Prior to becoming fully funded, employee contributions are the lesser of 100% of normal cost or 2% of payroll and employer contributions are 1% of payroll.

### Disbursements from Retiree Health Care Trust Fund:

Other than disbursements described below to stabilize City contributions and disbursements for reasonable administrative expenses, no disbursements may be made from the RHCTF unless it is fully funded.

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## APPENDIX C SUBSTANTIVE PLAN PROVISIONS

If City retiree health care costs (RHCTF contributions plus benefit payments) are projected to exceed 10% of payroll, with approval of the Mayor and by resolution of the Board of Supervisors, the RHCTF Board may authorize stabilization disbursements up to the extent necessary to reduce the City's retiree health care costs to 10% of payroll provided that such stabilization disbursement does not exceed 10% of the balance in the RHCTF as of the prior year.

## Changes Since Last Valuation:

There were several changes to each of the benefit options since the last valuation:

### Blue Shield Access+

- Out of Pocket Max was increased for Individual and Families to \$2,000/\$4,000
- Office visit, Outpatient Services, Hospital Inpatient, and Outpatient Surgery copays were increased
- Rx copays were increased for Retail and Mail Order drugs

### Blue Shield 65 Plus

- Office visit, Outpatient Services, Emergency Room, Hospital Inpatient, and Outpatient Surgery copays were increased
- Rx copays were increased for Retail and Mail Order drugs
- Lifetime maximums have been removed

### City Health Plan

- Preventive care services are now fully covered
- Lifetime maximums have been removed
- Rx copays were increased for Retail and Mail Order Drugs

### Kaiser

- Preventive Care services are now fully covered
- Office Visit, Outpatient Services, and Outpatient Surgery copays were increased

In addition, Proposition C was passed by the voters on November 8, 2011 establishing the RHCTF contribution rates for employees hired before January 10, 2009, tightening the eligibility to receive retiree health benefits, and removing a portion of the City subsidy for certain previously separated participants who had not yet commenced benefits.

Finally, Proposition A was passed by the voters on November 5, 2013 modifying the disbursement restrictions on the RHCTF.

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### APPENDIX D GLOSSARY OF TERMS

## 1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and, other relevant items.

### 2. Actuarial Cost Method

A procedure for determining the actuarial present value of plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

### 3. Actuarial Gain (Loss) (Called Actuarial Experience Gain and Loss)

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

## 4. Actuarial Liability, i.e., Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of projected benefits which will not be paid by future Normal Costs.

## 5. Actuarial Present Value (Present Value)

The value as of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.),
- b. multiplied by the probability of the occurrence of the event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. discounted according to an assumed rate (or rates) or return to reflect the time value of money.

As a simple example: assume you owe \$100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you won't be obligated to pay him. If the assumed investment return is 10%, the actuarial present value is:

		Probability	1		
Amount		of Payment	(1+Discount Rate)		
\$100	X	(101)	1/(1+.1)	=	\$90



45

### APPENDIX D GLOSSARY OF TERMS

### 6. Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for the Plan.

## 7. Actuarial Value of Assets

The value of cash, investments and other property belonging to a Plan, as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an actuarial value of assets is to smooth out fluctuations in market values. This way, long-term costs are not distorted by short-term fluctuations in the market.

## 8. Amortization

The portion of the Plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

### 9. Discount Rate

The estimated long-term interest yield on the investments that are expected to be used to finance the payment of benefits, with consideration given to the nature and mix of current and expected investments and the basis used to determine the Actuarial Value of Assets.

### 10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

### 11. Funded Ratio

The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

### 12. Normal Cost

That portion of the Actuarial Present Value of the Plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

### 13. Unfunded Actuarial Liability

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

## 14. Per Person Cost Trend, i.e., Healthcare Cost Trend Rate

The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.



# CITY AND COUNTY OF SAN FRANCISCO JULY 1, 2012 POSTRETIREMENT HEALTH BENEFIT VALUATION

## APPENDIX E ABBREVIATION LIST

Actuarial Accrued Liability (AAL)

Actuarial Valuation Report (AVR)

Annual Required Contribution (ARC)

Coordination of Benefits (COB)

Deductible and Coinsurance (DC)

Deferred Retirement Option Plan (DROP)

Durable Medical Equipment (DME)

Employee Assistance Program (EAP)

Employee Benefits Division (EBD)

Fiscal Year Ending (FYE)

Governmental Accounting Standards Board (GASB)

Hospital Emergency Room (ER)

In-Network (INN)

Inpatient (IP)

Medicare Eligible (ME)

Net Other Postemployment Benefit (NOO)

Non-Medicare Eligible (NME)

Not Applicable (NA)

Office Visit (OV)

Other Postemployment Benefit (OPEB)

Out-of-Network (OON)

Out-of-Pocket (OOP)

Outpatient (OP)

Pay-as-you-go (PAYGo)

Per Person Per Month (PPPM)

Pharmacy (Rx)

Preferred Provider Organization (PPO)

Primary Care Physician (PCP)

Specialist Care Provider (SCP)

Summary Plan Description (SPD)

Unfunded Actuarial Accrued Liability (UAAL)

Unfunded Actuarial Liability (UAL)

Urgent Care (UC)