CITY OF OAKLAND
BUDGET ADVISORY COMMISSION

Notice is hereby given that a **meeting** of the City of Oakland Budget Advisory Commission (BAC) is scheduled for **Wednesday, November 14, 2018** at **6:00 pm**
In the **Building Bridges Room, City Hall, 3rd Floor**, at 1 Frank Ogawa Plaza.

Commission Members:

Lori Andrus, Brandon Baranco, Ken Benson, Margurite Fuller, Ed Gerber, Geoffrey Johnson, Darin Ranahan, Noelle Simmons, Adam Van de Water, Danny Wan, & Jennifer West

City's Representative:

Brad Johnson – *Finance Department*

Meeting Agenda:

1. Administrative Matters
    A. Welcome & Attendance

2. Discussion regarding the City's study and draft plan regarding Other Post-Employment Benefits (OPEB) Actuarial Accrued Liability.

3. Informational Presentation and Discussion regarding the City's Finances as presented to the Finance and Management Committee.

4. Review of the Budget Timeline noted in the Consolidated Fiscal Policy. [10 minutes]

5. Open Forum

6. Discussion of Next Meeting Dates and Subjects
    A. Date Options: November 28, December 5, December 12, January 9
    B. Subjects: OPEB; Annual Organizational Meeting & Election of Officers

7. Adjournment

CITY OF OAKLAND

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OFFICE OF THE CITY CLERK
OAKLAND

2018 OCT 10 AM 10:50

AGENDA REPORT

TO:	Sabrina B. Landreth City Administrator	**FROM:**	Katano Kasaine Director of Finance
SUBJECT:	Other Post-Employment Benefit Actuarial Valuation Report	**DATE:**	October 8, 2018

City Administrator Approval | Date: 10/9/18

RECOMMENDATION

Staff Recommends That The City Council Receive An Informational Report On The City's Other Post-Employment Benefits (OPEB) Unfunded Actuarial Liability.

EXECUTIVE SUMMARY

The City of Oakland ("City") provides its employees with Other Post-Employment Benefits ("OPEB"), also known as retiree medical benefits. The City is required under governmental accounting standards to perform an actuarial valuation every two years, the results of which get published in the City's Comprehensive Annual Financial Report ("CAFR").

The City's most recent OPEB actuarial valuation was completed in June 2018 pursuant to Governmental Accounting Standards Board ("GASB") Statements 74 and 75, which replaced GASB Statements 43 and 45 beginning with the year ending June 30, 2018. These new standards significantly change how the City is required to report its unfunded OPEB liabilities. As of June 30, 2018, the City will report a net OPEB liability of $849.47 million, tipping the City's net position further into the negative. When both the net OPEB liability and deferred inflows are fully accounted for, the total impact on the City's Statement of Net Position will exceed $1.06 billion.

This report is intended to provide the City Council with key results of the actuarial valuation in the interim. Complete actuarial reports are included as ***Attachment A*** and ***Attachment B***.

BACKGROUND / LEGISLATIVE HISTORY

The City participates in a cost-sharing healthcare plan with Miscellaneous, Fire (Sworn), and Police (Sworn) retirees. The City provides its active and retiree medical benefits through the California Public Employees' Retirement System ("CalPERS") under the Public Employees' Medical and Hospital Care Act ("PEMHCA"). **Table 1** provides membership data as of July 1, 2017.

Table 1. Active and Retiree Membership as of July 1, 2017

	Miscellaneous	Fire	Police	Total
Actives	2,286	467	767	3,520
Retirees & Beneficiaries	1,653	910	1,149	3,712
Total	**3,939**	**1,377**	**1,916**	**7,232**

The healthcare benefits provided to the different classes are structured pursuant to labor agreements between the City and employee labor unions. Certain minimum benefit requirements under PEMHCA must also be maintained (minimum benefit as of 2018 is $133 per month). **Table 2** below shows the 2018 pre-Medicare eligible monthly premium cost sharing with retirees by employee group for the Kaiser Bay Area HMO plan.

Table 2. Employee and Employer Monthly Contributions Toward Retiree Healthcare
Pre-Medicare Eligible Monthly Premiums – Kaiser Bay Area 2018

	Miscellaneous			Fire			Police		
	Retiree Monthly	**City Monthly**	**Total Monthly**	**Retiree Monthly**	**City Monthly**	**Total Monthly**	**Retiree Monthly**	**City Monthly**	**Total Monthly**
1 Party	$222	$558	$780	-	$780	$780	-	$780	$780
2 Party	$1,002	$558	$1,560	$25	$1,535	$1,560	$89	$1,471	$1,560
3 Party	$1,470	$558	$2,028	$364	$1,664	$2,028	$444	$1,584	$2,028

The City has historically paid for retiree healthcare benefits on a pay-as-you-go basis, meaning payments are made annually for that year's premium expense. The City paid approximately $20.42 million in FY 2016-17 for retiree healthcare benefits. The City has begun to pre-fund future costs by contributing to the California Employers' Retiree Benefit Trust (CERBT) sponsored by CalPERS.

The CERBT Fund is a Section 115 trust fund dedicated to prefunding OPEB costs, and is open to all participating California public agencies. As of August 28, 2018, assets in the CERBT were $26,432,487, which includes a $10 million contribution made in FY 2017-18 and an additional $10 million contribution made in FY 2018-19, as authorized by the City Council in the FY 2017-19 Adopted Budget on a one-time basis. The pre-funding of future OPEB costs will require a long-term strategy in order to preserve the financial health of the City.

In May 2018 the City Council adopted Resolution 87208 C.M.S. authorizing the City Administrator to return with a recommended funding policy for OPEB. The FY 2018-19 Midcycle Budget appropriated $150,000 for an independent study of the OPEB liability, benchmarking, and funding strategies and recommendations. This independent evaluation is currently underway and is expected to be complete in January 2019.

ANALYSIS / POLICY ALTERNATIVES

GASB 74 and 75

Pursuant to GASB 75, the City is now required to report the net OPEB liability for the first time in its audited financials as of June 30, 2018, along with more extensive note disclosures and required supplementary information. The City engaged an actuary (Cheiron) to perform an actuarial valuation and an analysis of the total OPEB liability as of July 1, 2017, that will be included in the City's CAFR for FY2017-18.

Per the actuarial valuation as of July 1, 2017, the City will report a **net unfunded OPEB liability of $849.47 million** on its June 30, 2018, statement of net position. Prior to GASB 75, the City was only required to report a portion of the OPEB obligation as a liability. For the year ending June 30, 2017, the OPEB liability was $359.98 million. [1] This alone represents a **$489.49 million increase** in OPEB liabilities year-over-year. Because of additional GASB 75 reporting requirements, the impact to the City's net position is **$1,061,110,099** as illustrated in **Table 3** below. This $1.06 billion liability will be reported in the City's June 30, 2018, CAFR.

Table 3. GASB 74/75 Summary of Key Results

1. Net OPEB Liability	$ 849,471,239
2. Deferred Outflows	-
3. Deferred Inflows	254,863,650
4. Net Impact on Statement of Net Position (1. - 2. + 3.)	$ 1,104,334,889
5a. Explicit Contributions Subsequent to Measurement Date	21,157,109
5b. Implicit Contributions Subsequent to Measurement Date	6,067,681
5c. Trust Contributions Subsequent to Measurement Date	10,000,000
6. Net Impact on Statement of Net Position (4.-5a.-5b.-5c.)	**$ 1,061,110,099**

Funded Level

The funding ratio of a plan – which compares the assets available against to the liabilities – can be a benchmark for a plan's overall financial health.

As shown in **Table 4**, as of July 1, 2017, the City's combined Actuarial Value of Assets was $4.32 million compared to Actuarial Liabilities of $853.80 million, resulting in an Unfunded Actuarial Liability of $849.47 million and a funding ratio of **0.5 percent**. Inclusive of the $20 million contribution authorized by Council in the FY 2017-19 Adopted Budget, the City's funding ratio is **3.1 percent.**

[1] GASB 43/45 required the City each year to report as a liability the cumulative difference between the annual OPEB cost and the City's contribution to the plan since 2008. As of June 30, 2017, the OPEB liability was $359.98 million.

Table 4. OPEB Funded Levels

	As of July 1, 2017	As of August 28, 2018
Actuarial Value of Assets	$4,324,822	$26,432,487
Actuarial Liability	$853,796,061	$853,796,061
Unfunded Actuarial Liability	$849,471,239	$827,363,574
Funded Ratio	**0.5%**	**3.1%**

Annual Required Contribution

The Annual Required Contribution (ARC) reflects the amount of funding needed to fund the long-term costs of benefits promised to plan participants over time. The ARC consists of both a normal cost (i.e., the cost of the benefits earned by active employees over a year) and the amortization payment toward the unfunded liabilities (i.e., the cost of the benefits earned historically for which no assets have been set aside). The City is not required to pay the ARC each year under governmental accounting standards.

The FY 2017-18 and expected FY 2018-19 contributions are included in **Table 5**. As shown in the table, the City's actual contribution is substantially less than the Annual Required Contribution in each year, resulting in growing unfunded OPEB liabilities.

Table 5. Annual Required Contribution (All Funds)

Fiscal Year	Annual Required Contribution	Actual Contribution	Variance
FY 2017-18	$72,480,363	$37,224,790	($35,255,573)
FY 2018-19	$75,068,761	$39,573,193	($35,495,568)

Future Benefit Payments

The City primarily funds its OPEB benefits on a pay-as-you-go basis, meaning that the City makes benefit payments as premiums are do. This method covers the cost of premiums contributions for current retirees only. **Table 6** below shows the expected benefit payments through Fiscal Year 2027. This is the projected payment each year if the City continues to only fund OPEB on a pay-as-you-go basis. For comparison purposes only, inflation in the Bay Area has historically averaged between 2-3 percent per year.

Table 6. Expected Benefit Payments Through Fiscal Year Ending June 30, 2017

Fiscal Year Ending June 30,	Total Expected Net Benefit Payments	Year Over Year Growth	% Growth Compared to FY2018
2018	$27,224,790	-	-
2019	$29,573,193	9%	9%
2020	$31,418,647	6%	15%
2021	$33,577,379	7%	23%
2022	$35,411,154	5%	30%
2023	$38,433,663	9%	41%
2024	$41,413,271	8%	52%
2025	$44,011,034	6%	62%
2026	$47,019,623	7%	73%
2027	$50,260,507	7%	85%

In 2019, the City's contribution is expected to be $39.57 million which includes a benefit payment of $29.57 million and a trust fund contribution of $10 million. According to **Table 5**, the City would need to contribute another $35.50 million to reach the $75.07 million ARC.

Even if the City were to continue to pay for OPEB benefits on a pay-as-you-go-basis, the City would still need a long-term plan, as benefit costs are escalating and are expected to grow 85% over the next 10 years. Furthermore, this does not address any of the unfunded liability that would also continue to grow.

FISCAL IMPACT

This item is for informational purposes only and does not have a direct fiscal impact or cost.

PUBLIC OUTREACH / INTEREST

This item did not require additional public outreach, other than posting on the City's website.

COORDINATION

This report was prepared by the Finance Department.

SUSTAINABLE OPPORTUNITIES

Economic: There are no economic opportunities associated with this item.

Environmental: There are no environmental opportunities associated with this item.

Social Equity: There are no social equity opportunities associated with this item.

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Receive An Informational Report On The City's Other Post-Employment Benefits (OPEB) Liability.

For questions regarding this report, please contact Adam Benson, Budget Administrator, at (510) 238-2026.

Respectfully submitted,

Katano Kasaine

Katano Kasaine
Director of Finance, Finance Department

Prepared by:
Adam Benson, Budget Administrator
Budget Bureau

Bernadette de Leon, Financial Analyst
Budget Bureau

Attachments (2):

Attachment A: Postretirement Health Insurance Plan GASB 43/45 Actuarial Valuation Report
Attachment B: Postretirement Health Insurance Plan GASB Statement 74/75 Report

ATTACHMENT A

CHEIRON Classic Values, Innovative Advice

City of Oakland Postretirement Health Insurance Plan

GASB 43/45 Actuarial Valuation Report as of July 1, 2017

Produced by Cheiron
June 2018

www.cheiron.us 1.877.CHEIRON (243.4766)

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June 14, 2018

Ms. Katano Kasaine, Treasurer
City of Oakland
Finance and Management Agency
Lionel J. Wilson Building
150 Frank H. Ogawa Plaza, Suite 5330
Oakland, CA 94612-2093

Re: Employees' Postretirement Health Insurance Plan July 1, 2017 GASB Actuarial Valuation Results

Dear Katano:

As requested by the City, we have performed an actuarial valuation of the postretirement benefits provided by the City of Oakland Postretirement Health Insurance Plan (Plan). This report is for the use of the City of Oakland and its auditors in setting their contributions and preparing financial reports in accordance with applicable law and accounting requirements. The results of this report are only applicable to the City's contribution for the plan year ending June 30, 2018 and rely on future Plan experience conforming to the underlying assumptions. To the extent that actual Plan experience deviates from the underlying assumptions, the results would vary accordingly. Actuarial computations are calculated based on our understanding of GASB Statements 74 and 75.

The City of Oakland is first required to disclose under GASB Statement 74 accounting standards for fiscal year ending June 30, 2017. The City's June 30, 2018, disclosure will also incorporate GASB Statement 75. The prior valuation results were based on GASB Statements 43 and 45 accounting standards. This report contains financial disclosures to be included in the City's Comprehensive Annual Financial Report (CAFR) in order to receive recognition for excellence in financial reporting. Please see Section V. Additional accounting disclosures for fiscal year ending June 30, 2018 related to GASB Statements 74 and 75 will be provided in a separate report after the close of the fiscal year end.

Appendix A describes the participant data, assumptions, and methods used in calculating the figures throughout the report. In preparing our report, we relied on information (some oral and some written) supplied by the Plan's staff. 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. The demographic assumptions used in this report are the same as those adopted by the CalPERS Board in February 2014. The economic assumptions are the same as those used in the July 1, 2012 OPEB report prepared by AON, with the exception of the per capita claim costs and healthcare trends. This is the second report in which the implicit subsidy was recognized.

Ms. Katano Kasaine
City of Oakland
June 14, 2018

Appendix B contains our understanding of the substantive plan provisions based on the information provided by your office.

Future results may differ significantly from the current results presented in this valuation report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

This report does not reflect future changes in benefits, penalties, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations.

To the best of our knowledge, this actuarial valuation 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 actuarial valuation report was prepared exclusively for the City of Oakland for the purpose described herein. Other users of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely,
Cheiron, Inc.

Margaret Tempkin, FSA, EA, MAAA
Principal Consulting Actuary

Kathleen Weaver, FSA, EA, MAAA
Consulting Actuary

Michael Schionning, FSA, FCA, MAAA
Principal Consulting Actuary

TOTAL – SECTION I – SUMMARY

The City of Oakland, California engaged Cheiron to provide an analysis of the Employees' Postretirement Health Insurance Plan's liabilities as of July 1, 2017. The primary purposes of performing this actuarial valuation are to:

- **Estimate** the Actuarially Required Contribution (ARC) and the Actuarial Liability (AL) to be used to calculate the Total OPEB Liability (TOL) using GASB 74/75 methodology under the current funding strategy;
- **Provide projections** for the actuarial liabilities, the ARC, and the assets; and
- **Provide sensitivities** for the actuarial liabilities and the ARC by using a 1% increase and a 1% decrease in both healthcare trend and discount rates; and
- **Provide disclosures** for financial statements.

We have determined costs, liabilities and trends for the substantive Plan using actuarial assumptions and methods that we consider reasonable.

GASB's OPEB Requirements

GASB's Statement 74 refers to the financial reporting for postemployment benefit plans other than pension plans and Statement 75 refers to the employer accounting for these plans. Statement 74 is generally applicable where an entity has a separate trust or fund for OPEB benefits. We understand that the City has a trust used to fund future OPEB obligations. Statement 75, which was adopted in the fiscal year ending (FYE) June 30, 2018, requires the plan sponsor to book the Net OPEB Liability on the balance sheet. The employer's OPEB Expense is based upon the change in the Net OPEB Liability adjusted for unrecognized portions of gains and losses. Additional disclosures include a description of the substantive plan, summary of significant accounting policies (not included in this report), contributions, and a statement of funding progress, along with the methods and assumptions used for those disclosures.

Funding Policy

The City's funding policy is to partially pre-fund the actuarially determined Other Postemployment Benefits (OPEB) costs, which include both normal costs and amortization of unfunded actuarial liability, by contributing to the California Employers' Retiree Benefit Trust (CERBT) sponsored by CalPERS. The CERBT Fund is a Section 115 trust fund dedicated to prefunding Other Postemployment Benefits (OPEB) for all eligible California public agencies. The City expects to contribute $10 million per year to the CERBT for the next two years in addition to the benefit payments for retirees currently with medical coverage.

TOTAL – SECTION I – SUMMARY

Valuation Results

The table below presents the key results of the July 1, 2017 valuation compared to those of the last actuarial valuation as of July 1, 2015.

Table I-1
TOTAL
Summary of Key Valuation Results

	July 1, 2015	July 1, 2017
Actuarial Liability (AL)	$ 862,891,642	$ 853,796,061
Assets	2,901,346	4,324,822
Unfunded Actuarial Liability (UAL)	$ 859,990,296	$ 849,471,239
Fiscal Year Ending	**June 30, 2016**	**June 30, 2018**
Annual Required Contribution	$ 74,094,179	$ 72,480,363
Actual / *Expected* Contribution *	$ 20,481,457	*$ 37,224,790*
Expected Net Explicit Benefit Payments	$ 19,494,447	$ 21,157,109
Expected Net Implicit Benefit Payments	4,765,353	6,067,681
Expected Net Total Benefit Payments	$ 24,259,800	$ 27,224,790
Actual / *Expected* Net OPEB Obligation at End of Fiscal Year	$ 305,024,089	*N/A*
Discount Rate	4.00%	3.58%

** Includes $10 million in additional contributions above expected net total benefit payments.*

This report reflects claims, premiums and expenses determined as of July 1, 2017. There have been no significant changes in experience, population or plan design since the last valuation. However, there were changes in assumptions since the prior valuation which had an effect on the costs of the Plan. The assumption changes resulted in lower claim curves, lower medical trends, and a lower discount rate. These assumption changes, together with other experience during the year, resulted in an additional decrease in Unfunded Actuarial Liability (UAL) of approximately $105 million. More detail on the causes of this change can be found in the valuation results section of this report.

The Annual Required Contribution (ARC), as calculated under GASB 45, for the fiscal year ending June 30, 2018 decreased by $9.1 million over the expected ARC due to the following: increase of $2.1 million due to the covered population, increase of $3.5 million due to a change in the discount rate, and a decrease of $14.7 million due to changes in anticipated health care costs and their future increases.

The figures provided in this report are highly sensitive to the assumptions used.

TOTAL – SECTION II – ASSETS

The Plan's preceding valuation of liabilities was performed as of July 1, 2015. Table II-1 below shows the reconciliation of assets for the fiscal year ending July 1, 2017 that were used to develop the FYE 2018 ARC. The market value of assets returned 10.6% during July 1, 2016 and July 1, 2017. Benefit payments are net of the retiree premiums payable for coverage. The City is expected to contribute $10 million to the CERBT in each of the next two years.

Table II-1 TOTAL Reconciliation of Assets		
Valuation Assets as of July 1, 2015	**$**	**2,901,346**
Contributions - to CERBT		929,395
Contributions - net benefit payments		19,552,062
Net Benefit Payments		(19,552,062)
Administrative Expenses		(1,530)
Net Investment Earnings		84,111
Valuation Assets as of July 1, 2016	**$**	**3,913,322**
Contributions - to CERBT		0
Contributions - net benefit payments		20,424,243
Net Benefit Payments		(20,424,243)
Administrative Expenses		(2,010)
Net Investment Earnings		413,510
Valuation Assets as of July 1, 2017	**$**	**4,324,822**

TOTAL – SECTION III – VALUATION RESULTS

This section of the report calculates the current and expected future contribution requirements under the City's funding policy. Table III-1 below shows the actuarial liabilities for the Plan as of July 1, 2015 and July 1, 2017, as well as expected amounts as of July 1, 2018. The expected results were calculated using standard roll-forward techniques. Asset projections were calculated based on an assumed 7.28% rate of return and assuming expected benefits along with an additional $10.0 million contribution to the CERBT will be paid in the year ending June 30, 2018.

Table III-1
TOTAL
Unfunded Actuarial Liability

	July 1, 2015	July 1, 2017	*Projected to July 1, 2018**
Present Value of Future Benefits			
Active Employees	$ 857,153,483	$ 870,146,029	$ 901,297,257
Retirees and Beneficiaries	444,754,469	453,022,015	441,532,374
Total	$ 1,301,907,952	$ 1,323,168,044	$ 1,342,829,631
Actuarial Liability			
Active Employees	$ 418,137,173	$ 400,774,046	$ 453,598,716
Retirees and Beneficiaries	444,754,469	453,022,015	441,532,374
Total	$ 862,891,642	$ 853,796,061	$ 895,131,090
Assets	2,901,346	4,324,822	14,639,669
Unfunded Actuarial Liability (UAL)	**$ 859,990,296**	**$ 849,471,239**	**$ 880,491,421**
Funded Ratio	0%	1%	2%
Discount Rate	4.00%	3.58%	3.58%
Covered Payroll	$ 360,857,850	$ 360,308,628	$ 369,316,343
UAL as percentage of Covered Payroll	238%	236%	238%

** Projection to July 1, 2018 can only be used if the discount rate remains at 3.58%, otherwise these liabilities will need to be recalculated for GASB 75 results.*

Please note that prior to June 30, 2017, the City reported their actuarial liability under GASB 43/45. Under GASB 43/45 requirements, the disclosure of the above actuarial liability was provided in the notes to financial statements and was not immediately recorded on the balance sheet. Starting July 1, 2107, the City's GASB requirement falls under GASB 74/75 and the entire liability would be booked on the balance sheet. The above liability is shown for funding purposes only, the GASB 74/75 liability will be a roll forward of this liability to June 30, 2018 using actual benefit payments and assets as of that date and will be provided in a separate report.

The ARC, under GASB 45, consists of two parts: (1) the *normal cost*, which represents the annual cost attributable to service earned in a given year and (2) the 30-year open amortization of the UAL as a level percentage of payroll. Under the City's current funding policy, the City intends to contribute $10.0 million to the CERBT for the next two years and pay benefit payments outside of the CERBT.

TOTAL – SECTION III – VALUATION RESULTS

In Table III-2 below, we show the FYE 2016, FYE 2018, and the expected FYE 2019 Annual Required Contribution under the City's funding policy and GASB 45. The assumed discount rate was 4.0% for the fiscal year end 2016 and 3.58% for the fiscal year end 2018 and 2019. It is assumed the City's funding policy is to pay $10.0 million to the CERBT for the next two years in addition to benefits paid outside of the CERBT. The UAL amortization is based on an open 30-year amortization period. This 30-year open period is not in compliance with the actuarial standards of practice, as such, we have shown the GASB ARC instead of the ADC. The ARC will not be provided in the schedules of actuarial determined contributions (ADC), under GASB 75.

Table III-2
TOTAL
GASB ARC

Fiscal Year Ending	June 30, 2016	June 30, 2018	*Projected to June 30, 2019*
Normal Cost at beginning of year	$ 36,134,303	$ 37,147,093	$ 38,447,241
UAL Amortization at beginning of year	35,110,100	32,828,156	34,026,944
Interest to end of year	2,849,776	2,505,114	2,594,576
Total ARC	**$ 74,094,179**	**$ 72,480,363**	**$ 75,068,761**

Table III-3 shows the expected benefit payments through the fiscal year ending June 30, 2027. In calculating the liabilities, we project these figures for the life of each existing participant. This projects the anticipated eligible retirees and the change in both claims and premiums. These benefit payments include the explicit and implicit benefit payments and exclude payments made by retirees towards their premiums.

Table III-3
TOTAL

Fiscal Year Ending June 30,	Expected Net Implicit Benefit Payments	Expected Net Explicit Benefit Payments	Expected Net ACA Benefit Payments	Total Expected Net Benefit Payments
2018	$ 6,067,681	$ 21,157,109	$ -	**$ 27,224,790**
2019	6,715,481	22,857,711	-	**29,573,193**
2020	7,099,490	24,319,157	-	**31,418,647**
2021	7,675,267	25,902,112	-	**33,577,379**
2022	7,985,285	27,425,868	-	**35,411,154**
2023	8,847,919	29,127,930	457,814	**38,433,663**
2024	9,859,824	31,009,960	543,487	**41,413,271**
2025	10,535,216	32,859,837	615,981	**44,011,034**
2026	11,465,149	34,849,961	704,512	**47,019,623**
2027	12,623,881	36,841,239	795,387	**50,260,507**

Reconciliation

Table III-4 provides an estimate of the major factors contributing to the change in liability since the last actuarial valuation.

Table III-4 TOTAL Reconciliation of Actuarial Liability	
Actuarial Liability at July 1, 2015	$ 862,891,642
Normal Cost	36,134,303
Expected Benefit Payments paid throughout the year	(24,259,800)
Interest	35,480,599
Expected Actuarial Liability at July 1, 2016	$ 910,246,745
Normal Cost	37,760,346
Expected Benefit Payments paid throughout the year	(26,347,788)
Interest	37,398,495
Expected Actuarial Liability at July 1, 2017	$ 959,057,797
Actuarial Liability at July 1, 2017	853,796,061
Gain or (Loss)	$ 105,261,736
Gain or (Loss) due to:	
Census changes	$ 2,013,103
Change in discount rate	(48,571,933)
Change in claims and trend assumptions	151,820,566
Total changes	$ 105,261,736

Below is a brief description of each of the above components:

- *Expected Values* refer to the change that would have occurred had experience matched all the assumptions between July 1, 2015 and July 1, 2017.
- *Census Changes* refer to the impact of population changes between July 1, 2015 and July 1, 2017.
- *Change in Discount Rate* refers to the impact that a change in discount rate had on the liability between July 1, 2015 and July 1, 2017. The discount rate was lowered from 4.0% to 3.58%, reflecting the new GASB 74/75 requirements for plan discount rate selection.
- *Change in Claims and Trend Assumptions* refers to the change in expected current and future healthcare claims and expense costs. The claim curves were updated to reflect the current market experience. They resulted in lower claims than previously used. The medical trends were updated as well. These trends were lower than assumed, producing a gain in the liability.

TOTAL – SECTION IV – SENSITIVITY

The liabilities and ARC produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the healthcare trend rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-1
TOTAL
Sensitivity to Health Care Trend Rates - Unfunded Actuarial Liability

Health Care Trend Rate	-1%	Base	+1%
Actuarial Liability			
Active Employees	$ 337,737,313	$ 400,774,046	$ 479,579,846
Retirees and Beneficiaries	406,804,350	453,022,015	507,413,509
Total	$ 744,541,663	$ 853,796,061	$ 986,993,355
Assets	4,324,822	4,324,822	4,324,822
Unfunded Actuarial Liability	**$ 740,216,841**	**$ 849,471,239**	**$ 982,668,533**

Table IV-2
TOTAL
Sensitivity to Health Care Trend Rates - GASB ARC for FYE 2018

Health Care Trend Rate	-1%	Base	+1%
Total Normal Cost at beginning of year	$ 30,454,465	$ 37,147,093	$ 45,877,850
UAL Amortization at beginning of year	28,605,977	32,828,156	37,975,620
Interest to End of Year	2,114,364	2,505,114	3,001,954
Total ARC	**$ 61,174,806**	**$ 72,480,363**	**$ 86,855,424**

TOTAL – SECTION IV – SENSITIVITY

The tables below show the impact of a 1% increase or decrease in the discount rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30 year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-3
TOTAL
Sensitivity to Discount Rates - Unfunded Actuarial Liability

Discount Rate	2.58%	3.58%	4.58%
Actuarial Liability			
Active Employees	$ 474,135,415	$ 400,774,046	$ 342,120,540
Retirees and Beneficiaries	515,006,984	453,022,015	402,713,650
Total	$ 989,142,399	$ 853,796,061	$ 744,834,190
Assets	4,324,822	4,324,822	4,324,822
Unfunded Actuarial Liability	**$ 984,817,577**	**$ 849,471,239**	**$ 740,509,368**

Table IV-4
TOTAL
Sensitivity to Discount Rates - GASB ARC for FYE 2018

Discount Rate	2.58%	3.58%	4.58%
Total Normal Cost at beginning of year	$ 47,299,671	$ 37,147,093	$ 29,473,699
UAL Amortization at beginning of year	33,199,977	32,828,156	32,536,705
Interest to End of Year	2,076,891	2,505,114	2,840,077
Total ARC	**$ 82,576,539**	**$ 72,480,363**	**$ 64,850,481**

TOTAL – SECTION V – ACCOUNTING DISCLOSURES

Statements No. 43 and 45 of the Governmental Accounting Standards Board (GASB) established standards for accounting and financial reporting of Other Postemployment Benefit (OPEB) information by governmental employers and plans. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The actuarial liability is compared to the actuarial value of assets to determine the funding ratio. The actuarial liability under GASB is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Table V-1
TOTAL
Schedule of Funding Progress *

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAL as Percentage of Covered Payroll ((b-a)/c)
7/1/2017	$ 4,324,822	$ 853,796,061	$ 849,471,239	1%	$ 360,308,628	235.8%
7/1/2015	2,901,346	862,891,642	859,990,296	0%	360,857,850	238.3%
7/1/2013	0	463,850,944	463,850,944	0%	322,169,793	144.0%
7/1/2012	0	553,530,074	553,530,074	0%	304,373,447	181.9%

** Figures prior to July 1, 2015 calculated by prior actuary*

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with the parameters established by GASB for calculating the ARC and the Annual OPEB Cost.

Table V-2
TOTAL
Schedule of Employer Contributions *

Fiscal Year Ending	Annual OPEB Cost (AOC)	City Contributions	Percentage of AOC Contributed	Net OPEB Obligation
2018	$ 70,958,018	*$ 37,224,790*	*52%*	*N/A*
2017	75,385,815	20,424,243	27%	$ 359,985,660
2016	68,584,039	20,481,457	30%	305,024,089
2015	41,584,680	19,757,993	48%	256,921,507
2014	40,475,483	20,632,950	51%	235,094,820

** Figures prior to FYE June 30, 2016 calculated by the prior actuary.*

TOTAL – SECTION V – ACCOUNTING DISCLOSURES

We have also provided a *Note to Required Supplementary Information* for the financial statements in Table V-3.

Table V-3 TOTAL 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, 2017
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, Open Period
Remaining Amortization Period	30 years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Blended Discount Rate	3.58%
Investment Rate of Return	7.28%
Expected Return on City Assets	3.80%
Rate of Salary Increases used for amortization of the UAL	2.50%
Ultimate Rate of Medical Inflation	3.50%
Years to Ultimate Rate of Medical Inflation	20 years
Inflation	2.50%

POLICE – SECTION I – SUMMARY

Funding Policy

The City's funding policy is to partially pre-fund the actuarially determined Other Postemployment Benefits (OPEB) costs, which include both normal costs and amortization of unfunded actuarial liability, by contributing to the California Employers' Retiree Benefit Trust (CERBT) sponsored by CalPERS. The CERBT Fund is a Section 115 trust fund dedicated to prefunding Other Postemployment Benefits (OPEB) for all eligible California public agencies. The City expects to contribute $4.1 million per year to the CERBT for the next two years in addition to the benefit payments for retirees currently with medical coverage.

Valuation Results

The table below presents the key results of the July 1, 2017 valuation compared to those of the last actuarial valuation as of July 1, 2015.

Table I-1
POLICE
Summary of Key Valuation Results

	July 1, 2015	**July 1, 2017**
Actuarial Liability (AL)	$ 366,025,819	$ 359,347,092
Assets	1,163,070	1,766,999
Unfunded Actuarial Liability (UAL)	$ 364,862,749	$ 357,580,093
Fiscal Year Ending	**June 30, 2016**	**June 30, 2018**
Annual Required Contribution	$ 33,262,412	$ 31,481,897
Actual / *Expected* Contribution *	$ 8,258,795	*$ 14,768,135*
Expected Net Explicit Benefit Payments	$ 8,038,029	$ 9,071,218
Expected Net Implicit Benefit Payments	1,086,710	1,596,917
Expected Net Total Benefit Payments	$ 9,124,739	$ 10,668,135
Actual / *Expected* Net OPEB Obligation at End of Fiscal Year	$ 132,536,497	*N/A*
Discount Rate	4.00%	3.58%

** Includes $4.1 million in additional contributions above expected net total benefit payments.*

This report reflects claims, premiums and expenses determined as of July 1, 2017. There have been no significant changes in experience, population or plan design since the last valuation. However, there were changes in assumptions since the prior valuation which had an effect on the costs of the Plan. The assumption changes resulted in lower claim curves, lower medical trends, and a lower discount rate. These assumption changes, together with other experience during the year, resulted in an additional decrease in Unfunded Actuarial Liability (UAL) of approximately

POLICE – SECTION I – SUMMARY

$54 million. More detail on the causes of this change can be found in the valuation results section of this report.

The Annual Required Contribution (ARC) for the fiscal year ending June 30, 2018 decreased by $5.4 million over the expected ARC due to the following: increase of $1.4 million due to the covered population, increase of $1.6 million due to a change in the discount rate, and a decrease of $8.4 million due to changes in anticipated health care costs and their increases.

The figures provided in this report are highly sensitive to the assumptions used.

POLICE – SECTION II – ASSETS

The Plan's preceding valuation of liabilities was performed as of July 1, 2015. Table II-1 below shows the reconciliation of assets for the fiscal year ending July 1, 2017 that were used to develop the FYE 2018 ARC. Assets were allocated based on the percentage of the Actuarial Liability associated with the Police members. The market value of assets returned 11.0% during the year. Benefit payments are net of the retiree premiums payable for coverage. The City is expected to contribute $4.1 million to the CERBT in each of the next two years.

Table II-1 POLICE Reconciliation of Assets		
Valuation Assets as of July 1, 2015	**$**	**1,163,070**
Contributions - to CERBT		394,309
Contributions - net benefit payments		7,864,486
Net Benefit Payments		(7,864,486)
Administrative Expenses		(649)
Net Investment Earnings		35,685
Valuation Assets as of June 30, 2016	**$**	**1,592,415**
Contributions - to CERBT		0
Contributions - net benefit payments		8,493,670
Net Benefit Payments		(8,493,670)
Administrative Expenses		(853)
Net Investment Earnings		175,437
Valuation Assets as of July 1, 2017	**$**	**1,766,999**

POLICE – SECTION III – VALUATION RESULTS

This section of the report calculates the current and expected future contribution requirements under the City's funding policy. Table III-1 below shows the actuarial liabilities for the Plan as of July 1, 2015 and July 1, 2017, as well as expected amounts as of July 1, 2018. The expected results were calculated using standard roll-forward techniques. Asset projections were calculated based on an assumed 7.28% rate of return and assuming the expected benefits along with an additional $4.1 million contribution to the CERBT will be paid in the year ending June 30, 2018.

Table III-1
POLICE
Unfunded Actuarial Liability Police

	July 1, 2015	July 1, 2017	*Projected to July 1, 2018*
Present Value of Future Benefits			
Active Employees	$ 395,694,114	$ 382,728,559	$ 396,430,241
Retirees and Beneficiaries	210,994,409	221,112,735	218,171,156
Total	$ 606,688,523	$ 603,841,294	$ 614,601,397
Actuarial Liability			
Active Employees	$ 155,031,410	$ 138,234,357	$ 160,351,504
Retirees and Beneficiaries	210,994,409	221,112,735	218,171,156
Total	$ 366,025,819	$ 359,347,092	$ 378,522,660
Assets	1,163,070	1,766,999	5,995,637
Unfunded Actuarial Liability (UAL)	**$ 364,862,749**	**$ 357,580,093**	**$ 372,527,023**
Funded Ratio	0%	0%	2%
Discount Rate	4.00%	3.58%	3.58%
Covered Payroll	$ 114,085,254	$ 116,043,775	$ 118,944,870
UAL as percentage of Covered Payroll	320%	308%	313%

** Projection to July 1, 2018 can only be used if the discount rate remains at 3.58%, otherwise these liabilities will need to be recalculated for GASB 75 results.*

Please note that, prior to June 30, 2017, the City reported their actuarial liability under GASB 43/45. Under GASB 43/45 requirements, the disclosure of the above actuarial liability was provided in the notes to financial statements and was not immediately recorded on the balance sheet. Starting July 1, 2107, the City's GASB requirement falls under GASB 74/75 and the entire liability would be booked on the balance sheet. The above liability is shown for funding purposes only, the GASB 74/75 liability will be a roll forward of this liability to June 30, 2018 using actual benefit payments and assets as of that date and will be provided in a separate report.

The ARC, under GASB 45, consists of two parts: (1) the *normal cost*, which represents the annual cost attributable to service earned in a given year and (2) the 30-year open amortization of the UAL as a level percentage of payroll. Under the City's current funding policy, the City intends to contribute $4.1 million to the CERBT and pay benefit payments outside of the CERBT.

POLICE – SECTION III – VALUATION RESULTS

In Table III-2 below, we show the FYE 2016, FYE 2018, and the expected FYE 2019 Annual Required Contribution under the City's funding policy. The assumed discount rate was 4.0% for the fiscal year end 2016 and 3.58% for the fiscal year end 2018 and 2019. It is assumed the City's funding policy is to pay $4.1 million to the CERBT annually in addition to benefits paid outside of the CERBT. The UAL amortization is based on an open 30-year amortization period. This 30-year open period is not in compliance with the actuarial standards of practice, as such, we have shown the GASB ARC instead of the ADC. The ARC will not be provided in the schedules of actuarial determined contributions (ADC), under GASB 75.

Table III-2 POLICE GASB ARC			
Fiscal Year Ending	**June 30, 2016**	**June 30, 2018**	***Projected to June 30, 2019***
Normal Cost at beginning of year	$ 17,087,144	$ 16,574,973	$ 17,155,097
UAL Amortization at beginning of year	14,895,944	13,818,826	14,396,456
Interest to end of year	1,279,324	1,088,098	1,129,546
Total ARC	**$ 33,262,412**	**$ 31,481,897**	**$ 32,681,099**

Table III-3 shows the expected benefit payments and retiree contributions through the fiscal year ending June 30, 2027. In calculating the liabilities, we project these figures for the life of each existing participant. This projects the anticipated eligible retirees and the change in both claims and premiums. These benefit payments include the explicit and implicit benefit payments and exclude payments made by retirees towards their premiums.

Table III-3 POLICE				
Fiscal Year Ending June 30,	**Expected Net Implicit Benefit Payments**	**Expected Net Explicit Benefit Payments**	**Expected Net ACA Benefit Payments**	**Total Expected Net Benefit Payments**
2018	$ 1,596,917	$ 9,071,218	$ -	**$ 10,668,135**
2019	1,772,266	9,653,164	-	**11,425,430**
2020	1,798,926	10,197,456	-	**11,996,381**
2021	1,984,661	10,858,667	-	**12,843,328**
2022	2,325,884	11,558,715	-	**13,884,599**
2023	2,708,273	12,256,315	275,720	**15,240,307**
2024	3,201,978	13,106,887	330,450	**16,639,314**
2025	3,668,831	14,006,621	378,051	**18,053,502**
2026	4,159,645	14,912,645	431,760	**19,504,050**
2027	4,645,443	15,771,236	476,901	**20,893,579**

POLICE – SECTION III – VALUATION RESULTS

Reconciliation

Table III-4 provides an estimate of the major factors contributing to the change in liability since the last actuarial valuation.

Table III-4 POLICE Reconciliation of Actuarial Liability		
Actuarial Liability at July 1, 2015	$	366,025,819
Normal Cost		17,087,144
Expected Benefit Payments paid throughout the year		(9,124,739)
Interest		15,143,813
Expected Actuarial Liability at July 1, 2016	$	389,132,037
Normal Cost		17,856,065
Expected Benefit Payments paid throughout the year		(9,872,067)
Interest		16,084,019
Expected Actuarial Liability at July 1, 2017	$	413,200,054
Actuarial Liability at July 1, 2017		359,347,092
Gain or (Loss)	$	53,852,962
Gain or (Loss) due to:		
Census changes	$	(4,540,472)
Change in discount rate		(21,226,044)
Change in claims and trend assumptions		79,619,478
Total changes	$	53,852,962

Below is a brief description of each of the above components:

- *Expected Values* refer to the change that would have occurred had experience matched all the assumptions between July 1, 2015 and July 1, 2017.
- *Census Changes* refer to the impact of population changes between July 1, 2015 and July 1, 2017.
- *Change in Discount Rate* refers to the impact that a change in discount rate had on the liability between July 1, 2015 and July 1, 2017. The discount rate was lowered from 4.0% to 3.58%, reflecting the new GASB 74/75 requirements for plan discount rate selection.
- *Change in Claims and Trend Assumptions* refers to the change in expected current and future healthcare claims and expense costs. The claim curves were updated to reflect the current market experience. They resulted in lower claims than previously used. The medical trends were updated as well. These trends were lower than assumed, producing a gain in the liability.

POLICE – SECTION IV – SENSITIVITY

The liabilities and ARC produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the healthcare trend rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-1
POLICE
Sensitivity to Health Care Trend Rates - Unfunded Actuarial Liability

Health Care Trend Rate	-1%	Base	+1%
Actuarial Liability			
Active Employees	$ 112,068,071	$ 138,234,357	$ 171,705,321
Retirees and Beneficiaries	196,018,837	221,112,735	251,849,921
Total	$ 308,086,908	$ 359,347,092	$ 423,555,242
Assets	1,766,999	1,766,999	1,766,999
Unfunded Actuarial Liability	**$ 306,319,909**	**$ 357,580,093**	**$ 421,788,243**

Table IV-2
POLICE
Sensitivity to Health Care Trend Rates - GASB ARC for FYE 2018

Health Care Trend Rate	-1%	Base	+1%
Total Normal Cost at beginning of year	$ 13,057,421	$ 16,574,973	$ 21,238,560
UAL Amortization at beginning of year	11,837,856	13,818,826	16,300,176
Interest to End of Year	891,251	1,088,098	1,343,887
Total ARC	**$ 25,786,528**	**$ 31,481,897**	**$ 38,882,623**

POLICE – SECTION IV – SENSITIVITY

The tables below show the impact of a 1% increase or decrease in the discount rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-3
POLICE
Sensitivity to Discount Rates - Unfunded Actuarial Liability

Discount Rate	2.58%	3.58%	4.58%
Actuarial Liability			
Active Employees	$ 164,931,728	$ 138,234,357	$ 117,008,371
Retirees and Beneficiaries	253,936,082	221,112,735	194,823,085
Total	$ 418,867,810	$ 359,347,092	$ 311,831,456
Assets	1,766,999	1,766,999	1,766,999
Unfunded Actuarial Liability	**$ 417,100,811**	**$ 357,580,093**	**$ 310,064,457**

Table IV-4
POLICE
Sensitivity to Discount Rates - GASB ARC for FYE 2018

Discount Rate	2.58%	3.58%	4.58%
Total Normal Cost at beginning of year	$ 21,165,252	$ 16,574,973	$ 13,115,859
UAL Amortization at beginning of year	14,061,221	13,818,826	13,623,698
Interest to End of Year	908,843	1,088,098	1,224,672
Total ARC	**$ 36,135,316**	**$ 31,481,897**	**$ 27,964,229**

POLICE – SECTION V – ACCOUNTING DISCLOSURES

Statements No. 43 and 45 of the Governmental Accounting Standards Board (GASB) established standards for accounting and financial reporting of Other Postemployment Benefit (OPEB) information by governmental employers and plans. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The actuarial liability is compared to the actuarial value of assets to determine the funding ratio. The actuarial liability under GASB is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Table V-1
POLICE
Schedule of Funding Progress *

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAL as Percentage of Covered Payroll ((b-a)/c)
7/1/2017	$ 1,766,999	$ 359,347,092	$ 357,580,093	0%	$ 116,043,775	308.1%
7/1/2015	1,163,070	366,025,819	364,862,749	0%	114,085,254	319.8%
7/1/2013	0	191,685,144	191,685,144	0%	100,628,250	190.5%
7/1/2012	0	231,558,435	231,558,435	0%	98,703,132	234.6%

** Figures prior to July 1, 2015 calculated by prior actuary*

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with the parameters established by GASB for calculating the ARC and the Annual OPEB Cost.

Table V-2
POLICE
Schedule of Employer Contributions *

Fiscal Year Ending	Annual OPEB Cost (AOC)	City Contributions	Percentage of AOC Contributed	Net OPEB Obligation
2018	$ 30,813,550	*$ 14,768,135*	*48%*	*N/A*
2017	33,999,553	8,493,670	25%	$ 158,042,380
2016	30,905,632	8,258,795	27%	132,536,497
2015	18,274,953	7,860,747	43%	109,889,660
2014	17,711,232	7,626,776	43%	99,475,455

** Figures prior to FYE 6/30/2016 calculated by the prior actuary.*

POLICE – SECTION V – ACCOUNTING DISCLOSURES

We have also provided a *Note to Required Supplementary Information* for the financial statements in Table V-3.

Table V-3 POLICE 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, 2017
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, Open Period
Remaining Amortization Period	30 years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Blended Discount Rate	3.58%
Investment Rate of Return	7.28%
Expected Return on City Assets	3.80%
Rate of Salary Increases used for amortization of the UAL	2.50%
Ultimate Rate of Medical Inflation	3.50%
Years to Ultimate Rate of Medical Inflation	20 years
Inflation	2.50%

FIRE – SECTION I – SUMMARY

Funding Policy

The City's funding policy is to partially pre-fund the actuarially determined Other Postemployment Benefits (OPEB) costs, which include both normal costs and amortization of unfunded actuarial liability, by contributing to the California Employers' Retiree Benefit Trust (CERBT) sponsored by CalPERS. The CERBT Fund is a Section 115 trust fund dedicated to prefunding Other Postemployment Benefits (OPEB) for all eligible California public agencies. The City expects to contribute $2.7 million per year to the CERBT for the next two years in addition to the benefit payments for retirees currently with medical coverage.

Valuation Results

The table below presents the key results of the July 1, 2017 valuation compared to those of the last actuarial valuation as of July 1, 2015.

Table I-1
FIRE
Summary of Key Valuation Results

	July 1, 2015	July 1, 2017
Actuarial Liability (AL)	$ 232,600,579	$ 218,601,169
Assets	779,594	1,163,309
Unfunded Actuarial Liability (UAL)	$ 231,820,985	$ 217,437,860
Fiscal Year Ending	**June 30, 2016**	**June 30, 2018**
Annual Required Contribution	$ 19,586,655	$ 18,610,045
Actual / *Expected* Contribution *	$ 5,486,867	*$ 10,149,785*
Expected Net Explicit Benefit Payments	$ 5,279,045	$ 5,697,293
Expected Net Implicit Benefit Payments	1,421,219	1,752,492
Expected Net Total Benefit Payments	$ 6,700,263	$ 7,449,785
Actual / *Expected* Net OPEB Obligation at End of Fiscal Year	$ 78,033,632	*N/A*
Discount Rate	4.00%	3.58%

** Includes $2.7 million in additional contributions above expected net total benefit payments.*

This report reflects claims, premiums and expenses determined as of July 1, 2017. There have been no significant changes in experience, population or plan design since the last valuation. However, there were changes in assumptions since the prior valuation which had an effect on the costs of the Plan. The assumption changes resulted in lower claim curves, lower medical trends, and a lower discount rate. These assumption changes, together with other experience during the year, resulted in an additional decrease in Unfunded Actuarial Liability (UAL) of approximately $39 million. More detail on the causes of this change can be found in the valuation results section of this report.

FIRE – SECTION I – SUMMARY

The Annual Required Contribution (ARC) for the fiscal year ending June 30, 2018 decreased by $2.9 million over the expected ARC due to the following: increase of $1.3 million due to the covered population, increase of $0.9 million due to a change in the discount rate, and a decrease of $5.1 million due to changes in anticipated health care costs and their increases.

The figures provided in this report are highly sensitive to the assumptions used.

FIRE – SECTION II – ASSETS

The Plan's preceding valuation of liabilities was performed as of July 1, 2015. Table II-1 below shows the reconciliation of assets for the fiscal year ending July 1, 2017 that were used to develop the FYE 2018 ARC. Assets were allocated based on the percentage of the Actuarial Liability associated with the Fire members. The market value of assets returned 10.6% during the year. Benefit payments are net of the retiree premiums payable for coverage. The City is expected to contribute $2.7 million to the CERBT in each of the next two years.

Table II-1 FIRE Reconciliation of Assets		
Valuation Assets as of July 1, 2015	**$**	**779,594**
Contributions - to CERBT		250,530
Contributions - net benefit payments		5,236,337
Net Benefit Payments		(5,236,337)
Administrative Expenses		(413)
Net Investment Earnings		22,673
Valuation Assets as of June 30, 2016	**$**	**1,052,384**
Contributions - to CERBT		0
Contributions - net benefit payments		5,441,554
Net Benefit Payments		(5,441,554)
Administrative Expenses		(542)
Net Investment Earnings		111,467
Valuation Assets as of July 1, 2017	**$**	**1,163,309**

FIRE – SECTION III – VALUATION RESULTS

This section of the report calculates the current and expected future contribution requirements under the City's funding policy. Table III-1 below shows the actuarial liabilities for the Plan as of July 1, 2015 and July 1, 2017, as well as expected amounts as of July 1, 2018. The expected results were calculated using standard roll-forward techniques. Asset projections were calculated based on an assumed 7.28% rate of return and assuming the expected benefits along with an additional $2.7 million contribution to the CERBT will be paid in the year ending June 30, 2018.

Table III-1
FIRE
Unfunded Actuarial Liability Fire

	July 1, 2015	July 1, 2017	*Projected to July 1, 2018*
Present Value of Future Benefits			
Active Employees	$ 233,988,105	$ 235,685,024	$ 244,122,548
Retirees and Beneficiaries	111,209,256	105,876,701	102,085,123
Total	$ 345,197,361	$ 341,561,725	$ 346,207,671
Actuarial Liability			
Active Employees	$ 121,391,323	$ 112,724,468	$ 126,666,249
Retirees and Beneficiaries	111,209,256	105,876,701	102,085,123
Total	$ 232,600,579	$ 218,601,169	$ 228,751,372
Assets	779,594	1,163,309	3,947,998
Unfunded Actuarial Liability (UAL)	**$ 231,820,985**	**$ 217,437,860**	**$ 224,803,374**
Funded Ratio	0%	1%	2%
Discount Rate	4.00%	3.58%	3.58%
Covered Payroll	$ 74,501,036	$ 73,239,751	$ 75,070,745
UAL as percentage of Covered Payroll	311%	297%	299%

** Projection to July 1, 2018 can only be used if the discount rate remains at 3.58%, otherwise these liabilities will need to be recalculated for GASB 75 results.*

Please note, prior to June 30, 2017, the City reported their actuarial liability under GASB 43/45. Under GASB 43/45 requirements, the disclosure of the above actuarial liability was provided in the notes to financial statements and was not immediately recorded on the balance sheet. Starting July 1, 2107, the City's GASB requirement falls under GASB 74/75 and the entire liability would be booked on the balance sheet. The above liability is shown for funding purposes only, the GASB 74/75 liability will be a roll forward of this liability to June 30, 2018 using actual benefit payments and assets as of that date and will be provided in a separate report.

The ARC consists of two parts: (1) the *normal cost*, which represents the annual cost attributable to service earned in a given year and (2) the 30-year open amortization of the UAL as a level percentage of payroll. Under the City's current funding policy, the City intends to contribute $2.7 million to the CERBT and pay benefit payments outside of the CERBT.

FIRE – SECTION III – VALUATION RESULTS

In Table III-2 below, we show the FYE 2016, FYE 2018, and the expected FYE 2019 Annual Required Contribution under the City's funding policy. The assumed discount rate was 4.0% for the fiscal year end 2016 and 3.58% for the fiscal year end 2018 and 2019. It is assumed the City's funding policy is to pay $2.7 million to the CERBT annually in addition to benefits paid outside of the CERBT. The UAL amortization is based on an open 30-year amortization period. This 30-year open period is not in compliance with the actuarial standards of practice, as such, we have shown the GASB ARC instead of the ADC. The ARC will not be provided in the schedules of actuarial determined contributions (ADC), under GASB 75.

Table III-2
FIRE
GASB ARC

Fiscal Year Ending		June 30, 2016		June 30, 2018		*Projected to June 30, 2019*
Normal Cost at beginning of year	$	9,368,962	$	9,563,859	$	9,898,594
UAL Amortization at beginning of year		9,464,360		8,402,973		8,687,617
Interest to end of year		753,333		643,213		665,386
Total ARC	**$**	**19,586,655**	**$**	**18,610,045**	**$**	**19,251,597**

Table III-3 shows the expected benefit payments and retiree contributions through the fiscal year ending June 30, 2027. In calculating the liabilities, we project these figures for the life of each existing participant. This projects the anticipated eligible retirees and the change in both claims and premiums. These benefit payments include the explicit and implicit benefit payments and exclude payments made by retirees towards their premiums.

Table III-3
FIRE

Fiscal Year Ending June 30,	Expected Net Implicit Benefit Payments	Expected Net Explicit Benefit Payments	Expected Net ACA Benefit Payments	Total Expected Net Benefit Payments
2018	$ 1,752,492	$ 5,697,293	$ -	$ **7,449,785**
2019	1,954,845	6,151,237	-	**8,106,083**
2020	2,062,731	6,463,949	-	**8,526,680**
2021	2,091,964	6,777,200	-	**8,869,165**
2022	1,954,139	7,037,197	-	**8,991,336**
2023	2,155,765	7,456,051	70,374	**9,682,189**
2024	2,395,962	7,911,651	86,424	**10,394,037**
2025	2,459,152	8,293,324	96,717	**10,849,193**
2026	2,743,079	8,800,380	117,369	**11,660,828**
2027	3,101,238	9,349,747	141,793	**12,592,778**

FIRE – SECTION III – VALUATION RESULTS

Reconciliation

Table III-4 provides an estimate of the major factors contributing to the change in liability since the last actuarial valuation.

Table III-4 FIRE Reconciliation of Actuarial Liability	
Actuarial Liability at July 1, 2015	$ 232,600,579
Normal Cost	9,368,962
Expected Benefit Payments paid throughout the year	(6,700,263)
Interest	9,546,090
Expected Actuarial Liability at July 1, 2016	$ 244,815,368
Normal Cost	9,790,565
Expected Benefit Payments paid throughout the year	(7,158,895)
Interest	10,042,463
Expected Actuarial Liability at July 1, 2017	$ 257,489,500
Actuarial Liability at July 1, 2017	218,601,169
Gain or (Loss)	$ 38,888,331
Gain or (Loss) due to:	
Census changes	$ (4,254,848)
Change in discount rate	(12,251,425)
Change in claims and trend assumptions	55,394,604
Total changes	$ 38,888,331

Below is a brief description of each of the above components:

- *Expected Values* refer to the change that would have occurred had experience matched all the assumptions between July 1, 2015 and July 1, 2017.
- *Census Changes* refer to the impact of population changes between July 1, 2015 and July 1, 2017.
- *Change in Discount Rate* refers to the impact that a change in discount rate had on the liability between July 1, 2015 and July 1, 2017. The discount rate was lowered from 4.0% to 3.58%, reflecting the new GASB 74/75 requirements for plan discount rate selection.
- *Change in Claims and Trend Assumptions* refers to the change in expected current and future healthcare claims and expense costs. The claim curves were updated to reflect the current market experience. They resulted in lower claims than previously used. The medical trends were updated as well. These trends were lower than assumed, producing a gain in the liability.

FIRE – SECTION IV – SENSITIVITY

The liabilities and ARC produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the healthcare trend rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-1
FIRE
Sensitivity to Health Care Trend Rates - Unfunded Actuarial Liability

Health Care Trend Rate	-1%	Base	+1%
Actuarial Liability			
Active Employees	$ 92,786,992	$ 112,724,468	$ 137,696,154
Retirees and Beneficiaries	94,895,016	105,876,701	119,097,250
Total	$ 187,682,008	$ 218,601,169	$ 256,793,404
Assets	1,163,309	1,163,309	1,163,309
Unfunded Actuarial Liability	**$ 186,518,699**	**$ 217,437,860**	**$ 255,630,095**

Table IV-2
FIRE
Sensitivity to Health Care Trend Rates - GASB ARC for FYE 2018

Health Care Trend Rate	-1%	Base	+1%
Total Normal Cost at beginning of year	$ 7,703,089	$ 9,563,859	$ 11,959,905
UAL Amortization at beginning of year	7,208,090	8,402,973	9,878,928
Interest to End of Year	533,820	643,213	781,830
Total ARC	**$ 15,444,999**	**$ 18,610,045**	**$ 22,620,663**

FIRE – SECTION IV – SENSITIVITY

The tables below show the impact of a 1% increase or decrease in the discount rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-3
FIRE
Sensitivity to Discount Rates - Unfunded Actuarial Liability

Discount Rate	2.58%	3.58%	4.58%
Actuarial Liability			
Active Employees	$ 133,326,240	$ 112,724,468	$ 96,253,784
Retirees and Beneficiaries	119,411,033	105,876,701	94,859,297
Total	$ 252,737,273	$ 218,601,169	$ 191,113,081
Assets	1,163,309	1,163,309	1,163,309
Unfunded Actuarial Liability	**$ 251,573,964**	**$ 217,437,860**	**$ 189,949,772**

Table IV-4
FIRE
Sensitivity to Discount Rates - GASB ARC for FYE 2018

Discount Rate	2.58%	3.58%	4.58%
Total Normal Cost at beginning of year	$ 12,219,147	$ 9,563,859	$ 7,557,122
UAL Amortization at beginning of year	8,481,012	8,402,973	8,346,065
Interest to End of Year	534,064	643,213	728,366
Total ARC	**$ 21,234,223**	**$ 18,610,045**	**$ 16,631,553**

FIRE – SECTION V – ACCOUNTING DISCLOSURES

Statements No. 43 and 45 of the Governmental Accounting Standards Board (GASB) established standards for accounting and financial reporting of Other Postemployment Benefit (OPEB) information by governmental employers and plans. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The actuarial liability is compared to the actuarial value of assets to determine the funding ratio. The actuarial liability under GASB is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Table V-1
FIRE
Schedule of Funding Progress *

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAL as Percentage of Covered Payroll ((b-a)/c)
7/1/2017	$ 1,163,309	$ 218,601,169	$ 217,437,860	1%	$ 73,239,751	296.9%
7/1/2015	779,594	232,600,579	231,820,985	0%	74,501,036	311.2%
7/1/2013	0	124,897,686	124,897,686	0%	61,723,369	202.4%
7/1/2012	0	149,352,503	149,352,503	0%	60,205,139	248.1%

** Figures prior to July 1, 2015 calculated by prior actuary*

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with the parameters established by GASB for calculating the ARC and the Annual OPEB Cost.

Table V-2
FIRE
Schedule of Employer Contributions *

Fiscal Year Ending	Annual OPEB Cost (AOC)	City Contributions	Percentage of AOC Contributed	Net OPEB Obligation
2018	$ 18,218,794	*$ 10,149,785*	*56%*	*N/A*
2017	19,926,274	5,441,554	27%	$ 92,518,352
2016	18,185,428	5,486,867	30%	78,033,632
2015	11,389,081	5,284,459	46%	65,335,071
2014	11,057,014	5,116,639	46%	59,230,449

** Figures prior to FYE 6/30/2016 calculated by the prior actuary.*

FIRE – SECTION V – ACCOUNTING DISCLOSURES

We have also provided a *Note to Required Supplementary Information* for the financial statements in Table V-3.

Table V-3
FIRE
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, 2017
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, Open Period
Remaining Amortization Period	30 years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Blended Discount Rate	3.58%
Investment Rate of Return	7.28%
Expected Return on City Assets	3.80%
Rate of Salary Increases used for amortization of the UAL	2.50%
Ultimate Rate of Medical Inflation	3.50%
Years to Ultimate Rate of Medical Inflation	20 years
Inflation	2.50%

MISCELLANEOUS – SECTION I – SUMMARY

Funding Policy

The City's funding policy is to partially pre-fund the actuarially determined Other Postemployment Benefits (OPEB) costs, which include both normal costs and amortization of unfunded actuarial liability, by contributing to the California Employers' Retiree Benefit Trust (CERBT) sponsored by CalPERS. The CERBT Fund is a Section 115 trust fund dedicated to prefunding Other Postemployment Benefits (OPEB) for all eligible California public agencies. The City expects to contribute $3.2 million per year to the CERBT annually for the next two years in addition to the benefit payments for retirees currently with medical coverage.

Valuation Results

The table below presents the key results of the July 1, 2017 valuation compared to those of the last actuarial valuation as of July 1, 2015.

Table I-1
MISCELLANEOUS
Summary of Key Valuation Results

	July 1, 2015	July 1, 2017
Actuarial Liability (AL)	$ 264,265,244	$ 275,847,800
Assets	958,682	1,394,514
Unfunded Actuarial Liability (UAL)	$ 263,306,562	$ 274,453,286
Fiscal Year Ending	**June 30, 2016**	**June 30, 2018**
Annual Required Contribution	$ 21,245,112	$ 22,388,421
Actual / *Expected* Contribution *	$ 6,735,795	*$ 12,306,871*
Expected Net Explicit Benefit Payments	$ 6,177,373	$ 6,388,598
Expected Net Implicit Benefit Payments	2,257,424	2,718,272
Expected Net Total Benefit Payments	$ 8,434,797	$ 9,106,871
Actual / *Expected* Net OPEB Obligation at End of Fiscal Year	$ 94,453,960	*N/A*
Discount Rate	4.00%	3.58%

This report reflects claims, premiums and expenses determined as of July 1, 2017. There have been no significant changes in experience, population or plan design since the last valuation. However, there were changes in assumptions since the prior valuation which had an effect on the costs of the Plan. The assumption changes resulted in lower claim curves, lower medical trends, and a lower discount rate. These assumption changes, together with other experience during the year, resulted in an additional decrease in Unfunded Actuarial Liability (UAL) of approximately $12 million. More detail on the causes of this change can be found in the valuation results section of this report.

MISCELLANEOUS – SECTION I – SUMMARY

The Annual Required Contribution (ARC) for the fiscal year ending June 30, 2018 decreased by $0.8 million over the expected ARC due to the following: decrease of $0.6 million due to the covered population, increase of $1.0 million due to a change in the discount rate, and a decrease of $1.2 million due to changes in anticipated health care costs and their increases.

The figures provided in this report are highly sensitive to the assumptions used.

MISCELLANEOUS – SECTION II – ASSETS

The Plan's preceding valuation of liabilities was performed as of July 1, 2015. Table II-1 below shows the reconciliation of assets for the fiscal year ending July 1, 2017 that were used to develop the FYE 2018 ARC. Assets were allocated based on the percentage of the Actuarial Liability associated with the Miscellaneous members. The market value of assets returned 10.0% during the year. Benefit payments are net of the retiree premiums payable for coverage. The City is expected to contribute $3.2 million to the CERBT in each of the next two years.

Table II-1 MISCELLANEOUS Reconciliation of Assets		
Valuation Assets as of July 1, 2015	**$**	**958,682**
Contributions - to CERBT		284,556
Contributions - net benefit payments		6,451,239
Net Benefit Payments		(6,451,239)
Administrative Expenses		(468)
Net Investment Earnings		25,753
Valuation Assets as of June 30, 2016	**$**	**1,268,523**
Contributions - to CERBT		0
Contributions - net benefit payments		6,489,019
Net Benefit Payments		(6,489,019)
Administrative Expenses		(615)
Net Investment Earnings		126,606
Valuation Assets as of July 1, 2017	**$**	**1,394,514**

MISCELLANEOUS – SECTION III – VALUATION RESULTS

This section of the report calculates the current and expected future contribution requirements under the City's funding policy. Table III-1 below shows the actuarial liabilities for the Plan as of July 1, 2015 and July 1, 2017, as well as expected amounts as of July 1, 2018. The expected results were calculated using standard roll-forward techniques. Asset projections were calculated based on an assumed 7.28% rate of return and assuming the expected benefits along with an additional $3.2 million contribution to the CERBT will be paid in the year ending June 30, 2018.

Table III-1 MISCELLANEOUS Unfunded Actuarial Liability Miscellaneous	July 1, 2015	July 1, 2017	*Projected to July 1, 2018*
Present Value of Future Benefits			
Active Employees	$ 227,471,264	$ 251,732,446	$ 260,744,468
Retirees and Beneficiaries	122,550,804	126,032,579	121,276,095
Total	$ 350,022,068	$ 377,765,025	$ 382,020,563
Actuarial Liability			
Active Employees	$ 141,714,440	$ 149,815,221	$ 166,580,963
Retirees and Beneficiaries	122,550,804	126,032,579	121,276,095
Total	$ 264,265,244	$ 275,847,800	$ 287,857,058
Assets	958,682	1,394,514	4,696,035
Unfunded Actuarial Liability (UAL)	**$ 263,306,562**	**$ 274,453,286**	**$ 283,161,023**
Funded Ratio	0%	1%	2%
Discount Rate	4.00%	3.58%	3.58%
Covered Payroll	$ 172,271,560	$ 171,025,101	$ 175,300,729
UAL as percentage of Covered Payroll	153%	160%	162%

** Projection to July 1, 2018 can only be used if the discount rate remains at 3.58%, otherwise these liabilities will need to be recalculated for GASB 75 results.*

Please note, prior to June 30, 2017, the City reported their actuarial liability under GASB 43/45. Under GASB 43/45 requirements, the disclosure of the above actuarial liability was provided in the notes to financial statements and was not immediately recorded on the balance sheet. Starting July 1, 2107, the City's GASB requirement falls under GASB 74/75 and the entire liability would be booked on the balance sheet. The above liability is shown for funding purposes only, the GASB 74/75 liability will be a roll forward of this liability to June 30, 2018 using actual benefit payments and assets as of that date and will be provided in a separate report.

The ARC consists of two parts: (1) the *normal cost*, which represents the annual cost attributable to service earned in a given year and (2) the 30-year open amortization of the UAL as a level percentage of payroll. Under the City's current funding policy, the City intends to contribute $3.2 million to the CERBT and pay benefit payments outside of the CERBT.

MISCELLANEOUS – SECTION III – VALUATION RESULTS

In Table III-2 below, we show the FYE 2016, FYE 2018, and the expected FYE 2019 Annual Required Contribution under the City's funding policy. The assumed discount rate was 4.0% for the fiscal year end 2016 and 3.58% for the fiscal year end 2018 and 2019. It is assumed the City's funding policy is to pay $3.2 million to the CERBT annually in addition to benefits paid outside of the CERBT. The UAL amortization is based on an open 30-year amortization period. This 30-year open period is not in compliance with the actuarial standards of practice, as such, we have shown the GASB ARC instead of the ADC. The ARC will not be provided in the schedules of actuarial determined contributions (ADC), under GASB 75.

Table III-2
MISCELLANEOUS
GASB ARC

Fiscal Year Ending	June 30, 2016	June 30, 2018	*Projected to June 30, 2019*
Normal Cost at beginning of year	$ 9,678,197	$ 11,008,261	$ 11,393,550
UAL Amortization at beginning of year	10,749,795	10,606,357	10,942,871
Interest to end of year	817,120	773,803	799,644
Total ARC	**$ 21,245,112**	**$ 22,388,421**	**$ 23,136,065**

Table III-3 shows the expected benefit payments and retiree contributions through the fiscal year ending June 30, 2027. In calculating the liabilities, we project these figures for the life of each existing participant. This projects the anticipated eligible retirees and the change in both claims and premiums. These benefit payments include the explicit and implicit benefit payments and exclude payments made by retirees towards their premiums.

Table III-3
MISCELLANEOUS

Fiscal Year Ending June 30,	Expected Net Implicit Benefit Payments	Expected Net Explicit Benefit Payments	Expected Net ACA Benefit Payments	Total Expected Net Benefit Payments
2018	$ 2,718,272	$ 6,388,598	$ -	**$ 9,106,871**
2019	2,988,370	7,053,310	-	**10,041,680**
2020	3,237,834	7,657,753	-	**10,895,586**
2021	3,598,641	8,266,245	-	**11,864,886**
2022	3,705,263	8,829,956	-	**12,535,219**
2023	3,983,882	9,415,564	111,721	**13,511,166**
2024	4,261,884	9,991,422	126,613	**14,379,920**
2025	4,407,234	10,559,892	141,213	**15,108,339**
2026	4,562,425	11,136,936	155,383	**15,854,745**
2027	4,877,200	11,720,256	176,693	**16,774,149**

Reconciliation

Table III-4 provides an estimate of the major factors contributing to the change in liability since the last actuarial valuation.

Table III-4 MISCELLANEOUS Reconciliation of Actuarial Liability		
Actuarial Liability at July 1, 2015	$	264,265,244
Normal Cost		9,678,197
Expected Benefit Payments paid throughout the year		(8,434,797)
Interest		10,790,696
Expected Actuarial Liability at July 1, 2016	$	276,299,340
Normal Cost		10,113,716
Expected Benefit Payments paid throughout the year		(9,316,826)
Interest		11,272,013
Expected Actuarial Liability at July 1, 2017	$	288,368,242
Actuarial Liability at July 1, 2017		275,847,800
Gain or (Loss)	$	12,520,442
Gain or (Loss) due to:		
Census changes	$	10,808,422
Change in discount rate		(15,094,464)
Change in claims and trend assumptions		16,806,484
Total changes	$	12,520,442

Below is a brief description of each of the above components:

- *Expected Values* refer to the change that would have occurred had experience matched all the assumptions between July 1, 2015 and July 1, 2017.
- *Census Changes* refer to the impact of population changes between July 1, 2015 and July 1, 2017.
- *Change in Discount Rate* refers to the impact that a change in discount rate had on the liability between July 1, 2015 and July 1, 2017. The discount rate was lowered from 4.0% to 3.58%, reflecting the new GASB 74/75 requirements for plan discount rate selection.
- *Change in Claims and Trend Assumptions* refers to the change in expected current and future healthcare claims and expense costs. The claim curves were updated to reflect the current market experience. They resulted in lower claims than previously used. The medical trends were updated as well. These trends were lower than assumed, producing a gain in the liability.

MISCELLANEOUS – SECTION IV – SENSITIVITY

The liabilities and ARC produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the healthcare trend rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-1
MISCELLANEOUS
Sensitivity to Health Care Trend Rates - Unfunded Actuarial Liability

Health Care Trend Rate	-1%	Base	+1%
Actuarial Liability			
Active Employees	$ 132,882,250	$ 149,815,221	$ 170,178,371
Retirees and Beneficiaries	115,890,497	126,032,579	136,466,338
Total	$ 248,772,747	$ 275,847,800	$ 306,644,709
Assets	1,394,514	1,394,514	1,394,514
Unfunded Actuarial Liability	**$ 247,378,233**	**$ 274,453,286**	**$ 305,250,195**

Table IV-2
MISCELLANEOUS
Sensitivity to Health Care Trend Rates - GASB ARC for FYE 2018

Health Care Trend Rate	-1%	Base	+1%
Total Normal Cost at beginning of year	$ 9,693,955	$ 11,008,261	$ 12,679,385
UAL Amortization at beginning of year	9,560,031	10,606,357	11,796,516
Interest to End of Year	689,293	773,803	876,237
Total ARC	**$ 19,943,279**	**$ 22,388,421**	**$ 25,352,138**

MISCELLANEOUS – SECTION IV – SENSITIVITY

The tables below show the impact of a 1% increase or decrease in the discount rates on the GASB actuarial liability and the ARC to provide some measure of sensitivity. The ARC is based on the GASB 45 methodology, normal cost plus 30-year open amortization of the unfunded liability with interest. These figures do not represent the actuarial determined contribution (ADC) under GASB 75.

Table IV-3
MISCELLANEOUS
Sensitivity to Discount Rates - Unfunded Actuarial Liability

Discount Rate	2.58%	3.58%	4.58%
Actuarial Liability			
Active Employees	$ 175,877,447	$ 149,815,221	$ 128,858,385
Retirees and Beneficiaries	141,659,869	126,032,579	113,031,268
Total	$ 317,537,316	$ 275,847,800	$ 241,889,653
Assets	1,394,514	1,394,514	1,394,514
Unfunded Actuarial Liability	**$ 316,142,802**	**$ 274,453,286**	**$ 240,495,139**

Table IV-4
MISCELLANEOUS
Sensitivity to Discount Rates - GASB ARC for FYE 2018

Discount Rate	2.58%	3.58%	4.58%
Total Normal Cost at beginning of year	$ 13,915,272	$ 11,008,261	$ 8,800,718
UAL Amortization at beginning of year	10,657,744	10,606,357	10,566,942
Interest to End of Year	633,984	773,803	887,039
Total ARC	**$ 25,207,000**	**$ 22,388,421**	**$ 20,254,699**

MISCELLANEOUS – SECTION V – ACCOUNTING DISCLOSURES

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Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The actuarial liability is compared to the actuarial value of assets to determine the funding ratio. The actuarial liability under GASB is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Table V-1
MISCELLANEOUS
Schedule of Funding Progress *

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAL as Percentage of Covered Payroll ((b-a)/c)
7/1/2017	$ 1,394,514	$ 275,847,800	$ 274,453,286	1%	$ 171,025,101	160.5%
7/1/2015	958,682	264,265,244	263,306,562	0%	172,271,560	152.8%
7/1/2013	0	147,268,114	147,268,114	0%	159,818,174	92.1%
7/1/2012	0	172,619,136	172,619,136	0%	145,465,176	118.7%

** Figures prior to July 1, 2015 calculated by prior actuary*

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with the parameters established by GASB for calculating the ARC and the Annual OPEB Cost.

Table V-2
MISCELLANEOUS
Schedule of Employer Contributions *

Fiscal Year Ending	Annual OPEB Cost (AOC)	City Contributions	Percentage of AOC Contributed	Net OPEB Obligation
2018	$ 21,925,673	*$ 12,306,871*	*56%*	*N/A*
2017	21,459,986	6,489,019	30%	$ 109,424,927
2016	19,492,979	6,735,795	35%	94,453,960
2015	11,920,646	6,612,786	55%	81,696,775
2014	11,707,237	7,889,535	67%	76,388,916

** Figures prior to FYE 6/30/2016 calculated by the prior actuary.*

MISCELLANEOUS – SECTION V – ACCOUNTING DISCLOSURES

We have also provided a *Note to Required Supplementary Information* for the financial statements in Table V-3.

Table V-3
MISCELLANEOUS
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, 2017
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, Open Period
Remaining Amortization Period	30 years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Blended Discount Rate	3.58%
Investment Rate of Return	7.28%
Expected Return on City Assets	3.80%
Rate of Salary Increases used for amortization of the UAL	2.50%
Ultimate Rate of Medical Inflation	3.50%
Years to Ultimate Rate of Medical Inflation	20 years
Inflation	2.50%

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Member Data

TOTAL			
Valuation Date	July 1, 2015	July 1, 2017	% Change
Active Employees			
Eligible for retirement benefits	1,087	1,047	-3.7%
Not eligible for retirement benefits	2,260	2,473	9.4%
Total	**3,347**	**3,520**	**5.2%**
Average Age	45.7	45.1	-1.2%
Average Service	12.2	11.6	-5.0%
Covered Payroll	$ 360,857,850	$ 360,308,628	-0.2%
Inactive with Medical Coverage			
Retired participants & Surviving Spouses	2,603	2,672	2.7%
Spouses	1,020	1,040	2.0%
Total	**3,623**	**3,712**	**2.5%**

POLICE			
Valuation Date	July 1, 2015	July 1, 2017	% Change
Active Employees *			
Eligible for retirement benefits	46	54	17.4%
Not eligible for retirement benefits	676	713	5.5%
Total	**722**	**767**	**6.2%**
Average Age	38.1	37.7	-1.2%
Average Service	10.5	9.8	-6.2%
Covered Payroll	$ 114,085,254	$ 116,043,775	1.7%
Inactive with Medical Coverage **			
Retired participants & Surviving Spouses	730	758	3.8%
Spouses	375	391	4.3%
Total	**1,105**	**1,149**	**4.0%**

* *There were no active employees eligible for the Retention I or II benefits in either 2015 or 2017.*

** *There were 112 retirees and 6 beneficiaries with Retention I benefits and 61 retirees with Retention II benefits in 2017. For comparison, there were 117 retirees and 6 beneficiaries with Retention I benefits and 61 retirees with Retention II benefits in 2015.*

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

FIRE			
Valuation Date	July 1, 2015	July 1, 2017	% Change
Active Employees			
Eligible for retirement benefits	112	103	-8.0%
Not eligible for retirement benefits	311	364	17.0%
Total	**423**	**467**	**10.4%**
Average Age	43.5	42.2	-2.8%
Average Service	13.8	12.5	-9.8%
Covered Payroll	$ 74,501,036	$ 73,239,751	-1.7%
Inactive with Medical Coverage			
Retired participants & Surviving Spouses	584	595	1.9%
Spouses	315	315	0.0%
Total	**899**	**910**	**1.2%**

MISCELLANEOUS			
Valuation Date	July 1, 2015	July 1, 2017	% Change
Active Employees			
Eligible for retirement benefits	929	890	-4.2%
Not eligible for retirement benefits	1,273	1,396	9.7%
Total	**2,202**	**2,286**	**3.8%**
Average Age	48.6	48.2	-0.8%
Average Service	12.4	12.0	-3.6%
Covered Payroll	$ 172,271,560	$ 171,025,101	-0.7%
Inactive with Medical Coverage			
Retired participants & Surviving Spouses	1,289	1,319	2.3%
Spouses	330	334	1.2%
Total	**1,619**	**1,653**	**2.1%**

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Eligible Active Employees as of July 1, 2017 TOTAL Years of Service									
Age Group	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 +	Total
Under 25	60	0	0	0	0	0	0	0	60
25 to 30	292	6	1	0	0	0	0	0	299
30 to 35	290	67	51	0	0	0	0	0	408
35 to 40	184	92	149	47	0	0	0	0	472
40 to 45	133	68	103	174	35	1	0	0	514
45 to 50	82	54	116	156	95	54	2	0	559
50 to 55	59	47	75	111	61	96	17	1	467
55 to 60	52	32	54	79	44	77	28	4	370
60 to 65	31	16	36	46	13	61	23	8	234
Over 65	16	12	21	28	14	30	13	3	137
Total	**1,199**	**394**	**606**	**641**	**262**	**319**	**83**	**16**	**3,520**

Eligible Active Employees as of July 1, 2017 POLICE Years of Service									
Age Group	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 +	Total
Under 25	28	0	0	0	0	0	0	0	28
25 to 30	141	2	0	0	0	0	0	0	143
30 to 35	116	26	24	0	0	0	0	0	166
35 to 40	42	22	41	13	0	0	0	0	118
40 to 45	15	13	19	73	17	0	0	0	137
45 to 50	0	6	10	37	34	33	0	0	120
50 to 55	0	4	4	5	13	17	2	0	45
55 to 60	1	0	0	1	0	3	0	0	5
60 to 65	0	0	0	1	0	2	0	0	3
Over 65	2	0	0	0	0	0	0	0	2
Total	**345**	**73**	**98**	**130**	**64**	**55**	**2**	**0**	**767**

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Eligible Active Employees as of July 1, 2017 FIRE									
	Years of Service								
Age Group	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 +	Total
Under 25	8	0	0	0	0	0	0	0	8
25 to 30	45	0	0	0	0	0	0	0	45
30 to 35	40	6	13	0	0	0	0	0	59
35 to 40	20	7	29	26	0	0	0	0	82
40 to 45	5	3	17	46	10	1	0	0	82
45 to 50	0	0	22	38	20	7	1	0	88
50 to 55	0	1	5	20	14	24	4	0	68
55 to 60	0	0	0	4	4	13	2	1	24
60 to 65	0	0	0	2	0	4	2	2	10
Over 65	1	0	0	0	0	0	0	0	1
Total	**119**	**17**	**86**	**136**	**48**	**49**	**9**	**3**	**467**

Eligible Active Employees as of July 1, 2017 MISCELLANEOUS									
	Years of Service								
Age Group	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 +	Total
Under 25	24	0	0	0	0	0	0	0	24
25 to 30	106	4	1	0	0	0	0	0	111
30 to 35	134	35	14	0	0	0	0	0	183
35 to 40	122	63	79	8	0	0	0	0	272
40 to 45	113	52	67	55	8	0	0	0	295
45 to 50	82	48	84	81	41	14	1	0	351
50 to 55	59	42	66	86	34	55	11	1	354
55 to 60	51	32	54	74	40	61	26	3	341
60 to 65	31	16	36	43	13	55	21	6	221
Over 65	13	12	21	28	14	30	13	3	134
Total	**735**	**304**	**422**	**375**	**150**	**215**	**72**	**13**	**2,286**

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Status Reconciliation TOTAL	Active	Retired	Disabled	Survivor	Total
Members on July 1, 2015	**3,347**	**1,963**	**399**	**241**	**5,950**
New Hires	689	0	0	0	689
Retired	(150)	150	0	0	0
Terminated	(307)	0	0	0	(307)
Became Disabled	(57)	0	57	0	0
Death	(2)	(27)	(10)	39	0
Dropped Coverage	0	(156)	(14)	(31)	(201)
Show ups	0	41	15	5	61
Members on July 1, 2017	**3,520**	**1,971**	**447**	**254**	**6,192**

Status Reconciliation POLICE	Active	Retired	Disabled	Survivor	Total
Members on July 1, 2015	**722**	**447**	**224**	**59**	**1,452**
New Hires	156	0	0	0	156
Retired	(27)	27	0	0	0
Terminated	(53)	0	0	0	(53)
Became Disabled	(31)	0	31	0	0
Death	0	(5)	(3)	8	0
Dropped Coverage	0	(41)	(8)	(11)	(60)
Show ups	0	18	10	2	30
Members on July 1, 2017	**767**	**446**	**254**	**58**	**1,525**

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Status Reconciliation FIRE	Active	Retired	Disabled	Survivor	Total
Members on July 1, 2015	**423**	**350**	**175**	**59**	**1,007**
New Hires	84	0	0	0	84
Retired	(8)	8	0	0	0
Terminated	(5)	0	0	0	(5)
Became Disabled	(26)	0	26	0	0
Death	(1)	(8)	(7)	16	0
Dropped Coverage	0	(28)	(6)	(5)	(39)
Show ups	0	8	5	2	15
Members on July 1, 2017	**467**	**330**	**193**	**72**	**1,062**

Status Reconciliation MISCELLANEOUS	Active	Retired	Disabled	Survivor	Total
Members on July 1, 2015	**2,202**	**1,166**	**0**	**123**	**3,491**
New Hires	449	0	0	0	449
Retired	(115)	115	0	0	0
Terminated	(249)	0	0	0	(249)
Became Disabled	0	0	0	0	0
Death	(1)	(14)	0	15	0
Dropped Coverage	0	(87)	0	(15)	(102)
Show ups	0	15	0	1	16
Members on July 1, 2017	**2,286**	**1,195**	**0**	**124**	**3,605**

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Economic Assumptions

1. **Measurement Date:** July 1, 2017

2. **Expected Return on Plan Assets:** 7.28% per year for funds invested with the CERBT Strategy 1

3. **Expected Return on City Assets:** 3.58% per year, based on the last available rate prior to the actuarial valuation date according to the Bond Buyer GO 20-year Bond Municipal Bond Index

4. **Blended Discount Rate used for Valuation Purposes:** 3.58% per year, net of investment and administrative expenses.

   It is assumed the City's funding policy is to pay $10.0 million to the CERBT annually for the next two years in addition to benefits paid outside of the CERBT.

5. **Consumer Price Index (CPI):** 2.50%

6. **Annual Rate of Payroll Growth:** For purposes of amortizing the Unfunded Actuarial Liability as a level percent of payroll, a 2.50% annual rate of pay growth is assumed.

7. **Salary Increase:** Representative values of the assumed annual salary increases are shown below.

Attained	Public Agency Police Sample Salary Increases at each Service						
Age	0	5	10	15	20	25	30
20	0.1500	0.0610					
25	0.1500	0.0610	0.0450				
30	0.1470	0.0610	0.0450	0.0450			
35	0.1430	0.0580	0.0450	0.0450	0.0450		
40	0.1310	0.0550	0.0430	0.0450	0.0450	0.0450	
45	0.1190	0.0520	0.0410	0.0430	0.0450	0.0450	0.0450
50	0.1190	0.0490	0.0370	0.0410	0.0430	0.0450	0.0450
55	0.1190	0.0490	0.0330	0.0370	0.0410	0.0430	0.0450
60	0.1190	0.0490	0.0330	0.0330	0.0370	0.0410	0.0430
65	0.1190	0.0490	0.0330	0.0330	0.0330	0.0370	0.0410

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained	Public Agency Fire Sample Salary Increases at each Service						
Age	0	5	10	15	20	25	30
20	0.2000	0.0690					
25	0.2000	0.0690	0.0470				
30	0.1980	0.0690	0.0470	0.0440			
35	0.1960	0.0640	0.0470	0.0440	0.0420		
40	0.1680	0.0590	0.0460	0.0440	0.0420	0.0400	
45	0.1410	0.0550	0.0440	0.0420	0.0420	0.0400	0.0380
50	0.1410	0.0510	0.0420	0.0400	0.0390	0.0400	0.0380
55	0.1410	0.0510	0.0410	0.0390	0.0360	0.0370	0.0380
60	0.1410	0.0510	0.0410	0.0380	0.0360	0.0340	0.0360
65	0.1410	0.0510	0.0410	0.0380	0.0360	0.0340	0.0340

Attained	Public Agency Miscellaneous Sample Salary Increases at each Service						
Age	0	5	10	15	20	25	30
20	0.1220	0.0640					
25	0.1220	0.0640	0.0460				
30	0.1160	0.0640	0.0460	0.0420			
35	0.1090	0.0600	0.0460	0.0420	0.0390		
40	0.1020	0.0550	0.0430	0.0420	0.0390	0.0370	
45	0.0950	0.0520	0.0410	0.0400	0.0390	0.0370	0.0350
50	0.0950	0.0480	0.0390	0.0380	0.0380	0.0370	0.0350
55	0.0950	0.0480	0.0370	0.0360	0.0360	0.0360	0.0350
60	0.0950	0.0480	0.0370	0.0340	0.0340	0.0340	0.0340
65	0.0950	0.0480	0.0370	0.0340	0.0330	0.0330	0.0330

8. **Changes Since Prior Valuation:** Since the last actuarial valuation as of July 1, 2015, the discount rate was updated to 3.58% to reflect the Bond Buyer GO 20-year Bond Municipal Bond Index.

9. **Rationale for Economic Actuarial Assumptions:** The salary increase rates are the assumptions used for participants in CalPERS, and are based on the most recent CalPERS Experience Study completed January 2014 and approved by the CalPERS Board in February 2014. The other economic assumptions are based on our review of the current economic environment.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Demographic Assumptions

City of Oakland employees participate in the California Public Employers' Retirement System (CalPERS). CalPERS determined the assumed rates of retirement, withdrawal, disabled retirement, and mortality for use in their actuarial valuations. Periodically, CalPERS will review these assumptions through an experience study, the most recent of which was completed in January 2014 and adopted by the CalPERS Board in February 2014. These assumptions will also be used by the City of Oakland in relation to when their employees will receive benefits under their pension plan.

1. **Rates of Retirement:** Rate of eligible active members retiring within the next year, based on CalPERS assumptions adopted in February 2014. There are separate rates for Police, Fire, and Miscellaneous members.

Police:

Attained	Public Agency Police 3.0% @ 50 Sample Retirement Rates at each Service						
Age	5	10	15	20	25	30	35
50	0.0500	0.0500	0.0500	0.0990	0.2400	0.3140	0.3790
51	0.0340	0.0340	0.0340	0.0720	0.1980	0.2600	0.3120
52	0.0330	0.0330	0.0330	0.0710	0.1980	0.2590	0.3110
53	0.0390	0.0390	0.0390	0.0800	0.2120	0.2770	0.3330
54	0.0450	0.0450	0.0450	0.0920	0.2290	0.3000	0.3610
55	0.0520	0.0520	0.0520	0.1050	0.2480	0.3230	0.3890
56	0.0420	0.0420	0.0420	0.0870	0.2210	0.2890	0.3470
57	0.0430	0.0430	0.0430	0.0880	0.2230	0.2920	0.3510
58	0.0540	0.0540	0.0540	0.1090	0.2550	0.3330	0.4010
59	0.0540	0.0540	0.0540	0.1080	0.2530	0.3300	0.3980
60	0.0600	0.0600	0.0600	0.1210	0.2720	0.3550	0.4280
61	0.0480	0.0480	0.0480	0.0980	0.2380	0.3110	0.3750
62	0.0610	0.0610	0.0610	0.1220	0.2740	0.3570	0.4310
63	0.0570	0.0570	0.0570	0.1150	0.2630	0.3430	0.4140
64	0.0690	0.0690	0.0690	0.1370	0.2960	0.3850	0.4660
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained	Public Agency Police 3.0% @ 55 Sample Retirement Rates at each Service						
Age	5	10	15	20	25	30	35
50	0.0040	0.0040	0.0040	0.0040	0.0150	0.0860	0.0860
51	0.0140	0.0140	0.0140	0.0140	0.0340	0.1140	0.1140
52	0.0260	0.0260	0.0260	0.0260	0.0600	0.1540	0.1540
53	0.0380	0.0380	0.0380	0.0380	0.0830	0.1880	0.1880
54	0.0710	0.0710	0.0710	0.0710	0.1510	0.2920	0.2920
55	0.0610	0.0610	0.0610	0.0610	0.1310	0.2610	0.2610
56	0.0720	0.0720	0.0720	0.0720	0.1530	0.2950	0.2950
57	0.0650	0.0650	0.0650	0.0650	0.1400	0.2730	0.2730
58	0.0660	0.0660	0.0660	0.0660	0.1420	0.2770	0.2770
59	0.1180	0.1180	0.1180	0.1180	0.2470	0.4370	0.4370
60	0.0650	0.0650	0.0650	0.0650	0.1380	0.2720	0.2720
61	0.0840	0.0840	0.0840	0.0840	0.1780	0.3320	0.3320
62	0.1080	0.1080	0.1080	0.1080	0.2260	0.4050	0.4050
63	0.0840	0.0840	0.0840	0.0840	0.1780	0.3320	0.3320
64	0.0840	0.0840	0.0840	0.0840	0.1780	0.3320	0.3320
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Attained	Public Agency Safety Police 2.7% @ 57 Sample Retirement Rates at each Service						
Age	5	10	15	20	25	30	35
50	0.0138	0.0138	0.0138	0.0138	0.0253	0.0451	0.0535
51	0.0123	0.0123	0.0123	0.0123	0.0226	0.0402	0.0477
52	0.0249	0.0249	0.0249	0.0249	0.0456	0.0812	0.0963
53	0.0497	0.0497	0.0497	0.0497	0.0909	0.1621	0.1920
54	0.0662	0.0662	0.0662	0.0662	0.1211	0.2160	0.2559
55	0.0854	0.0854	0.0854	0.0854	0.1563	0.2785	0.3300
56	0.0606	0.0606	0.0606	0.0606	0.1108	0.1975	0.2340
57	0.0711	0.0711	0.0711	0.0711	0.1300	0.2318	0.2747
58	0.0628	0.0628	0.0628	0.0628	0.1149	0.2049	0.2427
59	0.1396	0.1396	0.1396	0.1396	0.1735	0.2544	0.3014
60	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
61	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
62	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
63	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
64	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Fire:

Attained Age	Public Agency Fire 3.0% @ 50 Sample Retirement Rates at each Service						
	5	10	15	20	25	30	35
50	0.0200	0.0200	0.0200	0.0400	0.1300	0.1920	0.2020
51	0.0080	0.0080	0.0080	0.0230	0.1070	0.1640	0.1730
52	0.0230	0.0230	0.0230	0.0430	0.1360	0.1980	0.2090
53	0.0230	0.0230	0.0230	0.0430	0.1350	0.1980	0.2080
54	0.0270	0.0270	0.0270	0.0480	0.1430	0.2070	0.2180
55	0.0430	0.0430	0.0430	0.0700	0.1740	0.2440	0.2570
56	0.0530	0.0530	0.0530	0.0850	0.1960	0.2690	0.2850
57	0.0540	0.0540	0.0540	0.0860	0.1970	0.2710	0.2870
58	0.0520	0.0520	0.0520	0.0840	0.1930	0.2680	0.2830
59	0.0750	0.0750	0.0750	0.1160	0.2390	0.3210	0.3410
60	0.0650	0.0650	0.0650	0.1020	0.2190	0.2980	0.3160
61	0.0760	0.0760	0.0760	0.1170	0.2410	0.3240	0.3430
62	0.0680	0.0680	0.0680	0.1060	0.2240	0.3040	0.3220
63	0.0270	0.0270	0.0270	0.0490	0.1430	0.2080	0.2200
64	0.0940	0.0940	0.0940	0.1430	0.2770	0.3660	0.3890
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained Age	Public Agency Fire 3.0% @ 55 Sample Retirement Rates at each Service 5	10	15	20	25	30	35
50	0.0010	0.0010	0.0010	0.0060	0.0160	0.0690	0.0690
51	0.0020	0.0020	0.0020	0.0060	0.0180	0.0710	0.0710
52	0.0120	0.0120	0.0120	0.0210	0.0400	0.0980	0.0980
53	0.0320	0.0320	0.0320	0.0490	0.0850	0.1490	0.1490
54	0.0570	0.0570	0.0570	0.0870	0.1440	0.2170	0.2170
55	0.0730	0.0730	0.0730	0.1090	0.1790	0.2590	0.2590
56	0.0640	0.0640	0.0640	0.0970	0.1610	0.2380	0.2380
57	0.0630	0.0630	0.0630	0.0950	0.1570	0.2330	0.2330
58	0.0650	0.0650	0.0650	0.0990	0.1630	0.2410	0.2410
59	0.0880	0.0880	0.0880	0.1310	0.2130	0.2990	0.2990
60	0.1050	0.1050	0.1050	0.1550	0.2510	0.3440	0.3440
61	0.1180	0.1180	0.1180	0.1750	0.2820	0.3800	0.3800
62	0.0870	0.0870	0.0870	0.1280	0.2100	0.2950	0.2950
63	0.0670	0.0670	0.0670	0.1000	0.1650	0.2430	0.2430
64	0.0670	0.0670	0.0670	0.1000	0.1650	0.2430	0.2430
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Attained Age	Public Agency Safety Fire 2.7% @ 57 Sample Retirement Rates at each Service 5	10	15	20	25	30	35
50	0.0065	0.0065	0.0065	0.0065	0.0101	0.0151	0.0170
51	0.0081	0.0081	0.0081	0.0081	0.0125	0.0187	0.0211
52	0.0164	0.0164	0.0164	0.0164	0.0254	0.0380	0.0428
53	0.0442	0.0442	0.0442	0.0442	0.0680	0.1018	0.1149
54	0.0606	0.0606	0.0606	0.0606	0.0934	0.1397	0.1576
55	0.0825	0.0825	0.0825	0.0825	0.1269	0.1900	0.2143
56	0.0740	0.0740	0.0740	0.0740	0.1140	0.1706	0.1925
57	0.0901	0.0901	0.0901	0.0901	0.1387	0.2077	0.2343
58	0.0790	0.0790	0.0790	0.0790	0.1217	0.1821	0.2054
59	0.0729	0.0729	0.0729	0.0729	0.1123	0.1681	0.1897
60	0.1135	0.1135	0.1135	0.1135	0.1747	0.2615	0.2950
61	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618	0.2953
62	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618	0.2953
63	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618	0.2953
64	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618	0.2953
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Miscellaneous:

Attained	Public Agency Miscellaneous 2.7% @ 55 Sample Retirement Rates at each Service						
Age	5	10	15	20	25	30	35
50	0.0040	0.0090	0.0140	0.0350	0.0550	0.0950	0.1000
51	0.0020	0.0060	0.0110	0.0300	0.0500	0.0900	0.0940
52	0.0060	0.0120	0.0170	0.0380	0.0590	0.0990	0.1050
53	0.0100	0.0170	0.0240	0.0460	0.0680	0.1100	0.1170
54	0.0320	0.0440	0.0570	0.0850	0.1130	0.1600	0.1730
55	0.0760	0.1010	0.1250	0.1650	0.2050	0.2650	0.2890
56	0.0550	0.0740	0.0930	0.1270	0.1600	0.2140	0.2330
57	0.0500	0.0680	0.0860	0.1180	0.1510	0.2040	0.2220
58	0.0550	0.0740	0.0930	0.1270	0.1610	0.2150	0.2340
59	0.0610	0.0820	0.1020	0.1380	0.1740	0.2290	0.2500
60	0.0690	0.0930	0.1160	0.1540	0.1920	0.2500	0.2730
61	0.0860	0.1130	0.1410	0.1830	0.2250	0.2880	0.3150
62	0.1050	0.1380	0.1710	0.2180	0.2660	0.3340	0.3670
63	0.1030	0.1350	0.1670	0.2150	0.2620	0.3290	0.3610
64	0.1090	0.1430	0.1770	0.2260	0.2750	0.3440	0.3780
65	0.1340	0.1740	0.2150	0.2700	0.3260	0.4010	0.4420
66	0.1470	0.1910	0.2350	0.2940	0.3540	0.4330	0.4770
67	0.1210	0.1580	0.1960	0.2480	0.3000	0.3720	0.4090
68	0.1130	0.1470	0.1820	0.2320	0.2820	0.3520	0.3870
69	0.1170	0.1530	0.1890	0.2400	0.2910	0.3620	0.3980
70	0.1410	0.1830	0.2260	0.2830	0.3410	0.4180	0.4610
71	0.1110	0.1460	0.1800	0.2290	0.2790	0.3480	0.3830
72	0.0760	0.1010	0.1260	0.1660	0.2060	0.2660	0.2910
73	0.1050	0.1370	0.1700	0.2180	0.2650	0.3330	0.3660
74	0.1450	0.1880	0.2320	0.2900	0.3490	0.4270	0.4710
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained Age	Public Agency Miscellaneous 2.5% @ 55 Sample Retirement Rates at each Service						
	5	10	15	20	25	30	35
50	0.0040	0.0090	0.0190	0.0290	0.0490	0.0940	0.1000
51	0.0040	0.0090	0.0190	0.0290	0.0490	0.0940	0.1000
52	0.0040	0.0090	0.0200	0.0300	0.0500	0.0950	0.1010
53	0.0080	0.0140	0.0250	0.0360	0.0580	0.1040	0.1100
54	0.0240	0.0340	0.0500	0.0660	0.0910	0.1420	0.1520
55	0.0660	0.0880	0.1150	0.1420	0.1790	0.2410	0.2630
56	0.0420	0.0570	0.0780	0.0980	0.1280	0.1840	0.1990
57	0.0410	0.0570	0.0770	0.0970	0.1280	0.1830	0.1980
58	0.0450	0.0610	0.0830	0.1040	0.1360	0.1920	0.2080
59	0.0550	0.0740	0.0980	0.1230	0.1570	0.2160	0.2350
60	0.0660	0.0880	0.1150	0.1420	0.1790	0.2410	0.2630
61	0.0720	0.0950	0.1240	0.1530	0.1910	0.2550	0.2780
62	0.0990	0.1300	0.1660	0.2020	0.2480	0.3190	0.3500
63	0.0920	0.1210	0.1550	0.1890	0.2330	0.3020	0.3310
64	0.0910	0.1190	0.1530	0.1870	0.2310	0.2990	0.3280
65	0.1220	0.1600	0.2020	0.2450	0.2970	0.3740	0.4120
66	0.1380	0.1790	0.2260	0.2720	0.3290	0.4110	0.4520
67	0.1140	0.1490	0.1890	0.2290	0.2790	0.3540	0.3890
68	0.1000	0.1310	0.1680	0.2040	0.2500	0.3220	0.3530
69	0.1140	0.1490	0.1890	0.2290	0.2790	0.3540	0.3890
70	0.1270	0.1650	0.2090	0.2530	0.3060	0.3850	0.4240
71	0.1130	0.1480	0.1880	0.2280	0.2770	0.3520	0.3870
72	0.1090	0.1430	0.1820	0.2210	0.2700	0.3430	0.3770
73	0.0740	0.0980	0.1280	0.1570	0.1960	0.2600	0.2850
74	0.0510	0.0700	0.0930	0.1160	0.1490	0.2070	0.2250
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained	Public Agency Miscellaneous 2% @ 62 Sample Retirement Rates at each Service						
Age	5	10	15	20	25	30	35
52	0.0103	0.0132	0.0160	0.0188	0.0216	0.0244	0.0272
53	0.0131	0.0167	0.0202	0.0238	0.0273	0.0309	0.0345
54	0.0213	0.0272	0.0330	0.0388	0.0446	0.0504	0.0562
55	0.0440	0.0560	0.0680	0.0800	0.0920	0.1040	0.1160
56	0.0303	0.0385	0.0468	0.0550	0.0633	0.0715	0.0798
57	0.0363	0.0462	0.0561	0.0660	0.0759	0.0858	0.0957
58	0.0465	0.0592	0.0718	0.0845	0.0972	0.1099	0.1225
59	0.0578	0.0735	0.0893	0.1050	0.1208	0.1365	0.1523
60	0.0616	0.0784	0.0952	0.1120	0.1288	0.1456	0.1624
61	0.0619	0.0788	0.0956	0.1125	0.1294	0.1463	0.1631
62	0.0968	0.1232	0.1496	0.1760	0.2024	0.2288	0.2552
63	0.0888	0.1131	0.1373	0.1615	0.1857	0.2100	0.2342
64	0.0941	0.1197	0.1454	0.1710	0.1967	0.2223	0.2480
65	0.1287	0.1638	0.1989	0.2340	0.2691	0.3042	0.3393
66	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
67	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
68	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
69	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
70	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
71	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
72	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
73	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
74	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

2. **Rates of Withdrawal:** Rate of eligible active members terminating employment (not due to retirement, death, or disability) within the next year, based on CalPERS assumptions adopted in February 2014. There are separate rates for Police, Fire, and Miscellaneous members.

	Public Agency Police Sample Termination Rates at each Service							
Attained Age	0	5	10	15	20	25	30	35
20	0.10130	0.02490						
21	0.10130	0.02490						
22	0.10130	0.02490						
23	0.10130	0.02490						
24	0.10130	0.02490						
25	0.10130	0.02490	0.01790					
26	0.10130	0.02490	0.01790					
27	0.10130	0.02490	0.01790					
28	0.10130	0.02490	0.01790					
29	0.10130	0.02490	0.01790					
30	0.10130	0.02490	0.01790	0.01090				
31	0.10130	0.02490	0.01790	0.01090				
32	0.10130	0.02490	0.01790	0.01090				
33	0.10130	0.02490	0.01790	0.01090				
34	0.10130	0.02490	0.01790	0.01090				
35	0.10130	0.02490	0.01790	0.01090	0.00820			
36	0.10130	0.02490	0.01790	0.01090	0.00820			
37	0.10130	0.02490	0.01790	0.01090	0.00820			
38	0.10130	0.02490	0.01790	0.01090	0.00820			
39	0.10130	0.02490	0.01790	0.01090	0.00820			
40	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700		
41	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700		
42	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700		
43	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700		
44	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700		
45	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700	0.00650	
46	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700	0.00650	
47	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700	0.00650	
48	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700	0.00650	
49	0.10130	0.02490	0.01790	0.01090	0.00820	0.00700	0.00650	
50	0.10130	0.00860	0.00530	0.00270	0.00170	0.00120	0.00090	0.00090
51	0.10130	0.00860	0.00530	0.00270	0.00170	0.00120	0.00090	0.00090
52	0.10130	0.00860	0.00530	0.00270	0.00170	0.00120	0.00090	0.00090
53	0.10130	0.00860	0.00530	0.00270	0.00170	0.00120	0.00090	0.00090
54	0.10130	0.00860	0.00530	0.00270	0.00170	0.00120	0.00090	0.00090

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained Age	Public Agency Fire Sample Termination Rates at each Service							
	0	5	10	15	20	25	30	35
20	0.07100	0.01910						
21	0.07100	0.01910						
22	0.07100	0.01910						
23	0.07100	0.01910						
24	0.07100	0.01910						
25	0.07100	0.01910	0.00700					
26	0.07100	0.01910	0.00700					
27	0.07100	0.01910	0.00700					
28	0.07100	0.01910	0.00700					
29	0.07100	0.01910	0.00700					
30	0.07100	0.01910	0.00700	0.00640				
31	0.07100	0.01910	0.00700	0.00640				
32	0.07100	0.01910	0.00700	0.00640				
33	0.07100	0.01910	0.00700	0.00640				
34	0.07100	0.01910	0.00700	0.00640				
35	0.07100	0.01910	0.00700	0.00640	0.00580			
36	0.07100	0.01910	0.00700	0.00640	0.00580			
37	0.07100	0.01910	0.00700	0.00640	0.00580			
38	0.07100	0.01910	0.00700	0.00640	0.00580			
39	0.07100	0.01910	0.00700	0.00640	0.00580			
40	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500		
41	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500		
42	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500		
43	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500		
44	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500		
45	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500	0.00480	
46	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500	0.00480	
47	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500	0.00480	
48	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500	0.00480	
49	0.07100	0.01910	0.00700	0.00640	0.00580	0.00500	0.00480	
50	0.07100	0.00290	0.00090	0.00060	0.00050	0.00030	0.00030	0.00030
51	0.07100	0.00290	0.00090	0.00060	0.00050	0.00030	0.00030	0.00030
52	0.07100	0.00290	0.00090	0.00060	0.00050	0.00030	0.00030	0.00030
53	0.07100	0.00290	0.00090	0.00060	0.00050	0.00030	0.00030	0.00030
54	0.07100	0.00290	0.00090	0.00060	0.00050	0.00030	0.00030	0.00030

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Attained Age	Public Agency Miscellaneous Sample Termination Rates at each Service 0	5	10	15	20	25	30	35
20	0.17420	0.09460						
21	0.17300	0.09310						
22	0.17160	0.09150						
23	0.17020	0.09000						
24	0.16880	0.08840						
25	0.16740	0.08680	0.07490					
26	0.16600	0.08520	0.07330					
27	0.16460	0.08360	0.07160					
28	0.16340	0.08210	0.07000					
29	0.16200	0.08050	0.06850					
30	0.16060	0.07900	0.06680	0.05810				
31	0.15920	0.07740	0.06520	0.05660				
32	0.15780	0.07580	0.06360	0.05490				
33	0.15640	0.07420	0.06200	0.05330				
34	0.15500	0.07260	0.06040	0.05190				
35	0.15370	0.07110	0.05870	0.05030	0.04500			
36	0.15240	0.06950	0.05720	0.04870	0.04330			
37	0.15100	0.06800	0.05560	0.04720	0.04170			
38	0.14960	0.06640	0.05390	0.04560	0.04030			
39	0.14820	0.06480	0.05230	0.04410	0.03860			
40	0.14680	0.06320	0.05070	0.04240	0.03700	0.03120		
41	0.14540	0.06160	0.04900	0.04090	0.03530	0.02950		
42	0.14410	0.06010	0.04750	0.03940	0.03370	0.02790		
43	0.14280	0.05850	0.04590	0.03780	0.03200	0.02630		
44	0.14140	0.05700	0.04430	0.03620	0.03050	0.02460		
45	0.14000	0.05540	0.04270	0.03470	0.02900	0.02290	0.01610	
46	0.13860	0.05380	0.04100	0.03310	0.02730	0.02120	0.01450	
47	0.13720	0.05220	0.03940	0.03150	0.02570	0.01960	0.01270	
48	0.13580	0.05060	0.03770	0.03000	0.02400	0.01790	0.01100	
49	0.13450	0.04910	0.03610	0.02840	0.02250	0.01630	0.00930	
50	0.13320	0.01160	0.00710	0.00320	0.00210	0.00110	0.00050	0.00010
51	0.13180	0.01130	0.00680	0.00300	0.00190	0.00100	0.00040	0.00010
52	0.13040	0.01090	0.00650	0.00290	0.00180	0.00090	0.00030	0.00010
53	0.12900	0.01050	0.00620	0.00270	0.00160	0.00070	0.00020	0.00010
54	0.12760	0.01010	0.00580	0.00250	0.00140	0.00060	0.00010	0.00010

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

2. **Rates of Disability Retirement:** Rate of eligible active members becoming disabled within the next year, based on CalPERS assumptions adopted in February 2014. There are separate rates for Police, Fire, and Miscellaneous members.

	Public Agency Police			
Attained	Non-Duty		Duty Related	
Age	Male	Female	Male	Female
20	0.0001	0.0001	0.0000	0.0000
25	0.0001	0.0001	0.0017	0.0017
30	0.0002	0.0002	0.0048	0.0048
35	0.0003	0.0003	0.0079	0.0079
40	0.0004	0.0004	0.0110	0.0110
45	0.0005	0.0005	0.0141	0.0141
50	0.0008	0.0008	0.0185	0.0185
55	0.0013	0.0013	0.0479	0.0479
60	0.0020	0.0020	0.0602	0.0602
65	0.0020	0.0020	0.0728	0.0728
70	0.0020	0.0020	0.0855	0.0855
75	0.0020	0.0020	0.0984	0.0984

	Public Agency Fire			
Attained	Non-Duty		Duty Related	
Age	Male	Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001
25	0.0001	0.0001	0.0003	0.0003
30	0.0001	0.0001	0.0007	0.0007
35	0.0001	0.0001	0.0016	0.0016
40	0.0001	0.0001	0.0030	0.0030
45	0.0002	0.0002	0.0053	0.0053
50	0.0005	0.0005	0.0277	0.0277
55	0.0010	0.0010	0.0409	0.0409
60	0.0015	0.0015	0.0583	0.0583
65	0.0015	0.0015	0.0809	0.0809
70	0.0015	0.0015	0.1096	0.1096
75	0.0015	0.0015	0.1455	0.1455

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

	Public Agency Miscellaneous			
Attained	Non-Duty		Duty Related	
Age	Male	Female	Male	Female
20	0.0002	0.0001	0.0000	0.0000
25	0.0002	0.0001	0.0000	0.0000
30	0.0002	0.0002	0.0000	0.0000
35	0.0005	0.0008	0.0000	0.0000
40	0.0012	0.0016	0.0000	0.0000
45	0.0019	0.0022	0.0000	0.0000
50	0.0021	0.0023	0.0000	0.0000
55	0.0022	0.0018	0.0000	0.0000
60	0.0022	0.0014	0.0000	0.0000
65	0.0021	0.0012	0.0000	0.0000
70	0.0018	0.0011	0.0000	0.0000
75	0.0014	0.0012	0.0000	0.0000

3. **Rates of Mortality***:* The following tables are based on CalPERS assumptions adopted in 2014.

Pre-Retirement:	CalPERS 2014 Non-Work Related Mortality Table for non-work related deaths before retirement CalPERS 2014 Work Related Mortality Table for work related deaths before retirement
Healthy Annuitants:	CalPERS 2014 Service Retiree and Beneficiary Mortality Table
Disabled Annuitants:	CalPERS 2014 Non-Work Related Disability Retiree Mortality Table for the mortality of non-work related disabled annuitants CalPERS 2014 Work Related Disability Retiree Mortality Table for the mortality of work related disabled annuitants

No adjustments for mortality improvement were made between the date of the table and the valuation date.

To reflect mortality improvements, the healthy mortality (service retirements and beneficiaries) rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries. For disabled mortality, no future improvements are included in these rates.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

4. **Plan Election at Retirement:**

Plan	Police & Fire	Miscellaneous
United Healthcare	20%	15%
Kaiser	55%	70%
PERSChoice	15%	10%
PERSCare	10%	5%

Once a retiree waives coverage, we have assumed they do not re-elect a medical plan.

5. **Percent of Retirees Electing Coverage:**

	Not Reimbursement Eligible	Reimbursement Eligible
Police	N/A	95%
Fire	N/A	95%
Miscellaneous	50%	95%

6. **Family Composition:**

	Male	Female
Police	70%	70%
Fire	80%	80%
Miscellaneous*	70%	50%

* Miscellaneous spouses participate only after member's death

7. **Dependent Age:** For current active employees, males are assumed to be two-years older than their spouses. For current retirees, actual spouse date of birth was used, if known.

8. **Data Assumption:** Police members eligible for Retention I and Retention II benefits were provided by Aon during the conversion process. These two groups are a closed set of retirees. Retention I benefits were assumed to be $6,000 for any member missing service.

9. **Changes since Prior Valuation:** None

10. **Rationale for Demographic Actuarial Assumptions:** The rates of retirement, withdrawal, disability retirement, and mortality are the assumptions used for participants in CalPERS, and are based on the most recent CalPERS Experience Study completed January 2014 and approved by the CalPERS Board in February 2014. The other demographic assumptions are from the July 1, 2012 report and believed to be reasonable based on our review of the July 1, 2017 data.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Claim and Expense Assumptions

1. **Average Annual Claims and Expense Assumptions:** The following claim and expense assumptions are applicable from July 1, 2017 to June 30, 2018 for Retirees and Spouses. Active employees assumed to retire will use a blended curve based on the plan elections shown in the demographic section. Subsequent years' costs are based on the first year cost adjusted with trend.

	United Healthcare		Kaiser		PERSCare		PERSChoice	
Age	Male	Female	Male	Female	Male	Female	Male	Female
20	$ 4,553	$ 7,141	$ 2,831	$ 4,440	$ 3,468	$ 5,439	$ 3,115	$ 4,886
25	4,851	8,605	3,016	5,349	3,695	6,553	3,319	5,888
30	5,258	10,282	3,269	6,392	4,004	7,831	3,598	7,036
35	6,345	11,152	3,944	6,933	4,832	8,493	4,341	7,631
40	8,050	12,115	5,005	7,532	6,131	9,227	5,508	8,290
45	10,648	13,930	6,620	8,660	8,109	10,609	7,286	9,532
50	14,109	16,430	8,771	10,214	10,745	12,513	9,654	11,242
55	18,384	18,996	11,429	11,810	14,001	14,468	12,580	12,999
60	24,199	22,101	15,044	13,740	18,430	16,832	16,559	15,123
64	30,207	25,159	18,779	15,641	23,005	19,161	20,670	17,215
65	3,227	2,692	3,039	2,535	3,622	3,022	3,282	2,738
70	3,898	3,185	3,671	3,000	4,375	3,575	3,965	3,240
75	4,617	3,705	4,348	3,490	5,182	4,159	4,696	3,769

2. **Excise Tax:** The Patient Protection and Affordable Care Act created an excise tax on high cost plans effective in 2022. The tax will be equal to 40% of the value of employer provided coverage in excess of certain thresholds. Since the excise tax is not tax deductible, an adjustment factor is applied to the results assuming a 35% tax rate for non-Kaiser plans and 0% for Kaiser plans, since the tax is expected to be paid by the insurer and then passed on to the employer. For the City of Oakland we have projected the tax thresholds increase at an assumed CPI of 2.5%.

2018 Excise Tax Thresholds *		
Plan	Retiree Only	Retiree + 1
Pre-65	$11,850	$30,950
Post-65	$10,200	$27,500

* These thresholds will be updated before the tax takes effect in 2022 and indexed for inflation in future years.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

3. **Annual Trend:** The following annual trend rates were applied to the Average Annual Claims and Expense Assumptions to project these costs into the future.

Premiums and Claim Curves:

Beginning July 1,	Pre-Medicare Trend	Medicare Eligible Trend	Beginning July 1,	Pre-Medicare Trend	Medicare Eligible Trend
2017	7.000%	5.000%	2027	5.250%	4.250%
2018	6.825	4.925	2028	5.075	4.175
2019	6.650	4.850	2029	4.900	4.100
2020	6.475	4.775	2030	4.725	4.025
2021	6.300	4.700	2031	4.550	3.950
2022	6.125	4.625	2032	4.375	3.875
2023	5.950	4.550	2033	4.200	3.800
2024	5.775	4.475	2034	4.025	3.725
2025	5.600	4.400	2035	3.850	3.650
2026	5.425	4.325	2036	3.675	3.575
			2037+	3.500	3.500

4. **Annual Claim Loads:** Claim costs for retirees below age 65 have been loaded for the cost of children enrolled as dependents of eligible retirees. The claim costs for Kaiser and United Healthcare were loaded 7.0% and the claim costs for the CalPERS PPO plans were loaded by 6.4%. This figure is based on the expected cost for children using claim cost data provided by CalPERS to assist participating entities in developing age based claim costs. This data can be found on the CalPERS website in the file entitled "pemhca-implicit-subsidy-data.xls". This assumption implicitly assumes that future retirees will have the same child distribution as the current population.

5. **Annual Limits:** Assumed to increase at the same rate as medical trend.

6. **Lifetime Maximums:** Unlimited

7. **Medicare:** All participants are assumed to enroll in Medicare at age 65.

8. **Geography:** Implicitly assumed to remain the same as current retirees.

9. **Retention I Benefit for Police:** 0.00%

10. **Assumed Future Increases of the CalPERS Minimum Employer Contribution for PEMHCA Coverage:** 3.00%

11. **Assumed Future Increases of the Additional Reimbursement for Miscellaneous Employees:** 0.00%

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

12. **Changes since Last Valuation:** The annual claim curves were updated to reflect the most recent claim experience. The health care trends were updated to reflect the current market place. We have reflected the delay in the Cadillac tax from 2020 to 2022.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Methodology

Actuarial Cost Method: The Entry Age Normal Actuarial Cost method is used to determine costs. Under this funding method, a normal cost rate is determined as a level percent of pay for each active plan member and then summed to produce the total normal cost for the City.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The portion of the actuarial liability in excess of OPEB Trust's assets is amortized to develop an additional costs or savings which is added to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. A rolling 30-year amortization period was used under the Actuarial funding scenario meaning a 30-year amortization continues to be used for Unfunded Actuarial Liability. The amortization method is a level percent of expected pay amortization method, assuming a 2.5% annual increase in pay due to inflation.

Asset Valuation Method: Assets are valued at market value.

Claims Method: The claim cost curves were developed based on the experience of the entire CalPERS population, using data provided by CalPERS. This data can be found on the CalPERS website in the file entitled "pemhca-implicit-subsidy-data.xls". The data provided claim experience for all covered members (employees/retirees, covered spouses, and covered children) by age, PEMHCA rating area, and benefit plan. We used this data to develop the expected cost by age for the covered membership for the specific benefit plans and PEMHCA rating areas used by the covered City of Oakland population. The cost of covered children was converted to a load on the non-Medicare eligible retirees.

We have reflected the "true" cost of coverage for retirees. The "true" cost of coverage for retirees age 55-64 is greater than the cost of the same coverage for the typical group of active employees. Employers who treat the cost as being the same often are providing implicit subsidies for retirees. The cost difference, implicit subsidy, is equal to the "true" cost of providing retiree medical coverage minus the average active/retiree cost.

We have reflected the Patient Protection and Affordable Care Act created an excise tax on high cost plans effective in 2022. The tax will be equal to 40% of the value of employer provided coverage in excess of certain thresholds. However, this report does not reflect future changes in benefits, subsidies, penalties, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations.

Changes since Last Valuation: There were no changes to actuarial methods since the prior valuation.

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

A summary of the Post-Retirement Health Plan benefits and contribution provisions are as follows.

Eligibility

Full-time active employees are automatically eligible to receive postretirement medical coverage wi1wth CalPERS after retiring directly from the City.

The following summarizes eligibility for a pension benefit from the City of Oakland:

Police

- Tier One (Classic Members): 3% @ age 50
  - Employees are eligible to retire at age 50
- Tier Two (New hires as of February 8, 2012): 3% @ age 55
  - Employees are eligible to retire at age 50
- Tier Three (New hires as of January 1, 2013): 2.7% @ age 57
  - Employees are eligible to retire at age 50

- *Disability:* At least five years of service for non-duty disability, and no requirement for line of duty disability
- *Death:* At least five years of service for non-duty death, and no requirement for duty death

Fire

- Tier One (Classic Members): 3% @ age 50
  - Employees are eligible to retire at age 50
- Tier Two (New hires as of February 8, 2012): 3% @ age 55
  - Employees are eligible to retire at age 50
- Tier Three (New hires as of January 1, 2013): 2.7% @ age 57
  - Employees are eligible to retire at age 50

- *Disability:* At least five years of service for non-duty disability, and no requirement for line of duty disability
- *Death:* At least five years of service for non-duty death, and no requirement for duty death

Miscellaneous

- Tier One (Classic Members): Classic Formula 2.7%@ age 55
  - Employees are eligible to retire at age 50
- Tier Two (New hires as of June 8, 2012): Classic Formula 2.5% @ age 55
  - Employees are eligible to retire at age 50
- Tier Three (New hires as of January 1, 2013): New Formula 2% @ age 62
  - Employees are eligible to retire at age 52

- *Disability:* At least five years of service for non-duty disability, and no requirement for duty disability
- *Death:* At least five years of service for non-duty death, and no requirement for duty death

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Active members are vested after five years of service, however must retire directly from the City to be eligible for a post-retirement health benefit.

A police or fire employee who becomes disabled in the line of duty will be provided health insurance coverage immediately upon disablement.

An employee who becomes disabled outside of work and has completed 5 years of CalPERS credited service will be provided health insurance coverage upon disablement.

Employees must retire within 120 days of separation to be eligible for CalPERS health benefits. If retired within 120 days of separation, employees can enroll in CalPERS health benefits after retirement even if not enrolled in active coverage while working. If the retiree declines enrollment when first eligible, they still have the opportunity to enroll themselves and/or eligible dependents in the future. If the retirement date is more than 120 days after separation from employment, the retiree is not eligible for coverage at retirement or at any future date.

Spouse and Dependent Coverage

If a retiree is eligible for health insurance coverage, the Plan will also provide health coverage for the retiree's spouse and/or dependent children. This coverage will continue for as long as the spouse is alive.

If an active employee who has met the requirements to retire with health insurance coverage dies before retiring, the Plan will provide health coverage for the spouse and/or dependent children for as long as the spouse is alive.

Benefits

The City of Oakland Plan is a single employer plan that provides retirees and dependents the same medical benefits that are available to active employees for participants under age 65. Once a participant turns age 65, the Plan provides benefits that coordinate with Medicare. Participants that are eligible for premium free Medicare Part A must sign up for Medicare Part B as soon as they become eligible or CalPERS coverage will be cancelled. The City participates in the CalPERS health program, referred to as PEMHCA (Public Employees' Medical and Hospital Care Act).

Participant Cost Sharing Contributions

Police

The City contributes up to a fixed amount per month to CalPERS based on the level of coverage elected by the retiree. The 2017 and 2018 fixed amounts are shown in the table below. The fixed amount increases annually until it is equal to 100% of the employer contribution for active employees (or the Kaiser Bay Area premium). Assembly Bill 2544 states that beginning in 2008, retiree contributions should be equal to the number of years an agency has been in the PEMHCA program, multiplied by 5% of the current employer contribution for actives, but not increased more than $100 per year. As of 2017, the City of Oakland has been in the PEMHCA program for 27 years. If a member enrolls in a lower cost plan, ie Medicare, the employer contributions will be adjusted downward and will not exceed the CalPERS medical premium.

	Monthly Fixed Employer Contribution	
	2017	2018
Single	$ 733.39	$ 779.86
Two-party	$ 1,371.01	$ 1,471.01
Multi-party	$ 1,483.80	$ 1,583.80

Survivors of uniformed officers killed in the line of duty have their full premium paid by the City.

Retention I: Police officers who had at least 21 years of City service as of June 30, 1996 receive an additional fixed annual benefit during retirement, as outlined below.

Years of Service as of 6/30/1996	Annual Retiree Benefit	Annual Survivor Benefit
21	$1,500	$750
22	$2,000	$1,000
23	$2,500	$1,250
24	$3,000	$1,500
25+	$7,000	$4,665

These amounts may only be used to pay for post-retirement benefits such as, health insurance premiums, dental insurance premiums, life insurance premiums, disability insurance premiums, vision insurance premiums, prescription drug insurance premiums, and eligible expenses under a qualified dependent care program. Retirees and survivors are eligible to receive these benefits for life. If an officer is terminated for cause then he/she is no longer eligible.

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Retention II: A Closed group of officers are eligible for the following additional benefit.

a) Eligible employees, upon retirement, and depending upon the number of years of service at retirement, will receive 60% - 100% of the difference in the cost of the Bay Area Kaiser medical premium for the coverage level selected, minus the dollar amount contributed by the City directly to PERS on behalf of the retiree. The benefit schedule is as follows.

Years of Service as of 6/30/1996	Annual Reimbursement Percentage
21	60%
22	70%
23	80%
24	90%
25+	100%

b) Eligible employees, upon retirement and depending upon the number of years of service at retirement, will receive the same 60% - 100% of the premium cost of dental coverage. The dental premium for 2017 is $178.12 per month.

Fire

The City contributes up to a fixed amount per month to CalPERS based on the level of coverage elected by the retiree. The 2017 and 2018 fixed amounts are shown in the table below. The fixed amount increases annually until it is equal to 100% of the employer contribution for active employees (or the Kaiser Bay Area premium). Assembly Bill 2544 states that beginning in 2008, retiree contributions should be equal to the number of years an agency has been in the PEMHCA program, multiplied by 5% of the current employer contribution for actives, but not increased more than $100 per year. As of 2017, the City of Oakland has been in the PEMHCA program for 27 years. If a member enrolls in a lower cost plan, ie Medicare, the employer contributions will be adjusted downward and will not exceed the CalPERS medical premium.

	Monthly Fixed Employer Contribution	
	2017	2018
Single	$ 733.39	$ 779.86
Two-party	$ 1,43.90	$ 1,534.90
Multi-party	$ 1,564.14	$ 1,664.14

Survivors of uniformed officers killed in the line of duty have their full premium paid by the City.

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Miscellaneous

The City contributes a fixed copayment per retiree per month to CalPERS. The fixed copayment is equal to $128 per month in 2017 and $133 per month in 2018. The copayment will be adjusted annually by CalPERS to reflect the increase in the medical care component of the Consumer Price Index.

Employees with at least 10 years of City service at retirement are eligible for an additional reimbursement from the City up to $425.42 per retiree per month. The copayment and reimbursement combined cannot exceed the CalPERS medical premium.

Medical Premiums: Initial premiums for this valuation as of July 1, 2017 are based on a blend of the 2017 and the 2018 PEMHCA premium rates shown below:

2017 Monthly PEMHCA Premium Rates		
Plan	Retiree Only	Retiree + 1
Pre-65		
United Healthcare	$ 1,062.26	$ 2,124.52
Kaiser	733.39	1,466.78
PERSCare	932.39	1,864.78
PERSChoice	830.30	1,660.60
Post-65		
United Healthcare	324.21	648.42
Kaiser	300.48	600.96
PERSCare	389.76	779.52
PERSChoice	353.63	707.26

2018 Monthly PEMHCA Premium Rates		
Plan	Retiree Only	Retiree + 1
Pre-65		
United Healthcare	$ 1,371.84	$ 2,743.68
Kaiser	779.86	1,559.72
PERSCare	882.45	1,764.90
PERSChoice	800.27	1,600.54
Post-65		
United Healthcare	330.76	661.52
Kaiser	316.34	632.38
PERSCare	382.30	764.60
PERSChoice	345.97	691.94

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	Kaiser HMO	UnitedHealthcare HMO
General Plan Information		
• Annual Deductible		
– Individual	$0	$0
– Family	$0	$0
• Coinsurance	100%	100%
• Office Visit / Exam	$15 copay	$15 copay
• Outpatient Specialist Visit	$15 copay	$15 copay
• Annual Out-of-Pocket Limit		
– Individual	$1,500 (does not include Rx; see EOC for more detailed coverage)	$1,500 (does not include Rx; see EOC for more detailed coverage)
– Family	$3,000 (does not include Rx; see EOC for more detailed coverage)	$3,000 (does not include Rx; see EOC for items not included in copay max)
• Lifetime Plan Maximum	Unlimited	Unlimited
Preventive Services		
• Well Child Care	100%	100%
• Immunizations	100%	100%
• Well Woman Exams	100%	100%
• Mammograms	100% (some procedures may require a copay)	100%
• Adult Periodic Exams w/Preventive Tests	100%	100%
• Diagnostic X-Ray and Lab Tests	100% (some procedures may require a copay)	100%
Maternity Care		
• Pregnancy and Maternity Care *(Pre-Natal Care)*	100%	100%
Inpatient Hospital Services		
• Inpatient Hospitalization	100%	100%
• Pre-Authorization of Services Required	Yes	Yes
• Semi-Private Room & Board, including Services and Supplies	100%	100%
Surgical Services		
• Outpatient Facility Charge	$15 copay	100%
Emergency Room	$50 copay; waived if admitted	$50 copay; waived if admitted

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	Kaiser HMO	UnitedHealthcare HMO
Ambulance		
• Air	100%	100%
• Ground	100%	100%
Urgent Care	$15 copay	$15 copay
Mental Health Benefits		
• Inpatient Care	100% (see EOC for more detailed coverage)	100% (see EOC for more detailed coverage)
• Outpatient Care	$15 copay/indiv; $7 copay/group (See EOC for more detailed	$15 copay(see EOC for more detailed coverage)
Substance Abuse		
• Inpatient Hospitalization	100%	100%
• Inpatient Detoxification Services	100% (see EOC for more detailed coverage)	100% (see EOC for more detailed coverage)
• Outpatient Services	$15 copay /indiv; $5 copay /group (See EOC for more detailed coverage)	$15 copay (see EOC for more detailed coverage)
Prescription Drugs		
• Prescription Drug Annual Out-of- Pocket Limit/Individual	$5,650 (in addition to Medical OOP	$5,650 (in addition to Medical OOP limit)
• Prescription Drug Annual Out-of- Pocket Limit/ Family	$11,300 (mail-order OOP:$1,000/family in addition to medical OOP)	$11,300 (mail-order OOP:$1,000/family in addition to medical OOP)
– Generic	$5 copay	$5 copay (managed by OptumRx)
- Brand (Formulary/Preferred)	$20 copay	$20 copay (managed by OptumRx)
- Brand (Non-Formulary/Non-preferred)	$20 copay	$50 copay (managed by OptumRx)
– Number of Days Supply	30 days	30 days
• Mail Order		
– Mail Order Mandatory	Yes	Yes
– Generic	$10 copay ($1,000 OOP max/family; included in Rx OOP limit; excludes non-preferred brands)	$10 copay (managed by OptumRx) ($1,000 OOP max/family; included in Rx OOP limit; excludes non-preferred brands)
– Brand *(Formulary/Preferred)*	$40 copay ($1,000 OOP max/family; included in Rx OOP limit; excludes non-preferred brands)	$40 copay (managed by OptumRx) ($1,000 OOP max/family; included in Rx OOP limit; excludes non-preferred brands)
– Brand *(Non-Formulary / Non-Preferred)*		$100 copay (managed by OptumRx)
– Number of Days Supply	100 days (30-day supply for certain drugs)	90 days

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	Kaiser HMO	UnitedHealthcare HMO
Other Services and Supplies		
• Durable Medical Equipment & Prosthetic Devices	100%	100%
• Home Health Care	100% (prior authorization required; custodial care not covered)	100% ($15 copay/ visit for Physical, Occupational or Speech therapy at home) prior authorization required; custodial care not covered
• Skilled Nursing or Extended Care Facility	100% up to 100 days/cal year	100% up to 100 days/cal year
• Hospice Care	100%	100%
• Chiropractic Services	$15 copay (when medically necessary); up to 20 visits/cal year; combined with Acupuncture	$15 copay up to 20 visits/cal year combined with Acupuncture
• Acupuncture	$15 copay (when medically necessary); up to 20 visits/cal year; combined with Chiropractic	$15 copay up to 20 visits/cal year; combined with Chiropractic
Vision		
• Exam Copay	100%	100% (members 18+ years one visit/year
• Exam Benefit Frequency	12 months	12 months
Hearing		
• Screening	100%	100%
• Aid(s)	$1,000 max every 36 months for both ears	$1,000 max every 36 months for both ears
Infertility		
• Diagnosis	50%; see Plan Certificate for more details	50% of covered charges; see Plan Certificate for more details
• Treatment	50%; see Plan Certificate for more details	50% of covered charges; see Plan Certificate for more details
Outpatient Rehabilitative Therapy Services		
• Physical	$15 copay	$15 copay
• Occupational	$15 copay	$15 copay
• Speech	$15 copay	$15 copay

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERS Choice	
	In-Network	Out-of-Network
General Plan Information		
• Annual Deductible		
– Individual	$500 (not transferable between plans)	$500 (not transferable between plans)
– Family	$1,000 (not transferable between plans)	$1,000 (not transferable between plans)
• Coinsurance	80%	60%
• Office Visit / Exam	$20 copay	60%
• Outpatient Specialist Visit	$20 copay	60%
• Annual Out-of-Pocket Limit	Deductible included in OOP limits	
– Individual	$3,000 for Coinsurance; $5,150 for Medical services including Coinsurance (does not include Rx)	No limit
– Family	$6,000 for Coinsurance; $10,300 for Medical services including Coinsurance (does not include Rx)	No limit
• Lifetime Plan Maximum	Unlimited	Unlimited
Preventive Services		
• Well Child Care	100% (some restrictions apply; see EOC)	60%
• Immunizations	100% (some restrictions apply; see EOC)	60%
• Well Woman Exams	100% (some restrictions apply; see EOC)	60%
• Mammograms	80%	60%
• Adult Periodic Exams w/Preventive Tests	100% (some restrictions apply; see EOC)	60%
• Diagnostic X-Ray and Lab Tests	80%	60%
Maternity Care		
• Pregnancy and Maternity Care *(Pre-Natal Care)*	80%	60%
Inpatient Hospital Services		
• Inpatient Hospitalization	80%	60%
• Pre-Authorization of Services Required	Yes	Yes
• Semi-Private Room & Board, including Services and Supplies	80%	60%
Surgical Services		
• Outpatient Facility Charge	80% (services & supplies limited for certain procedures)	60% (benefit limited to $350/visit)

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERS Choice	
	In-Network	Out-of-Network
Emergency Room	$50 copay; waived if admitted; 80% for ER services rendered	$50 copay; waived if admitted; 80% for ER services rendered
Ambulance		
• Air	80%	80%
• Ground	80%	80%
Urgent Care	$20 copay/physician services; 80% for other services rendered	60%
Mental Health Benefits		
• Inpatient Care	80%	60%
• Outpatient Care	$20 copay/office visit	60%
Substance Abuse		
• Inpatient Hospitalization	80%	60%
• Outpatient Services	$20 copay/office visit	60%
Prescription Drugs		
• Annual Out-of-Pocket Limit/ Individual	$2,000 ($1,000 OOP/member required for mail order; in addition to medial OOP limit)	No limit
• Annual Out-of-Pocket Limit/Family	$4,000 ($1,000 OOP/member required for mail order; in addition to medial OOP limit)	No limit
• Retail		
– Generic	$5 copay (managed by OptumRx)	Not covered
– Brand *(Formulary/Preferred)*	$20 copay (managed by OptumRx)	Not covered
– Brand *(Non-Formulary / Non-Preferred)*	$50 copay (managed by OptumRx)	Not covered
– Number of Days Supply	30 days	Not covered
• Mail Order		
– Generic	$10 copay (managed by OptumRx) ($1,000 OOP max/ person; included in Rx OOP; excludes non-preferred brands)	Not covered
– Brand *(Formulary/Preferred)*	$40 copay (managed by OptumRx) ($1,000 OOP max/ person; included in Rx OOP; excludes non-preferred brands)	Not covered
– Brand *(Non-Formulary / Non-Preferred)*	$100 copay (managed by OptumRx)	Not covered
– Number of Days Supply	90 days	Not covered

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERS Choice	
	In-Network	Out-of-Network
Other Services and Supplies		
• Durable Medical Equipment & Prosthetic Devices	80% (pre-certification required for equipment)	60% (pre-certification required for equipment)
• Home Health Care	80% (up to 45 visits/cal year; pre-authorization required)	60% (up to 45 visits/cal year; pre-authorization required)
• Skilled Nursing or Extended Care Facility	80% first 10 days 70% next 90 days (pre-certification required; up to 100 days/cal year)	60% (pre-certification required; up to 100 days/cal year)
• Hospice Care	80%	80%
• Chiropractic Services	$15 copay; combined with Acupuncture; up to 20 visits/cal year	60% combined with Acupuncture; up to 20 visits/cal year
• Acupuncture	$15 copay; combined with Chiropractic; up to 20 visits/cal year	60% combined with Chiropractic; up to 20 visits/cal year
Hearing		
• Screening	80%	60%
• Aid(s)	80% ($1,000 every 36 months)	60% ($1,000 every 36 months)
Infertility		
• Diagnosis	Not covered	Not covered
• Treatment	Not covered	Not covered
Outpatient Rehabilitative Therapy Services		
• Physical	80% up to 24 visits/cal year	60% up to 24 visits/cal year
• Occupational	80% up to 24 visits/cal year	60% up to 24 visits/cal year
• Speech	80% up to 24 visits/cal year	60% up to 24 visits/cal year

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERSCare	
	In-Network	Out-of-Network
General Plan Information		
• Annual Deductible		
– Individual	$500 (not transferable between plans)	$500 (not transferable between plans)
– Family	$1,000 (not transferable between plans)	$1,000 (not transferable between plans)
• Coinsurance	90%	60%
• Office Visit / Exam	$20 copay	60%
• Outpatient Specialist Visit	$20 copay	60%
• Annual Out-of-Pocket Limit	Deductible included in OOP limits	
– Individual	$2,000 for Coinsurance; $5,150 for Medical services including Coinsurance (does not include Rx)	No limit
– Family	$4,000 for Coinsurance; $10,300 for Medical services including Coinsurance (does not include Rx)	No limit
• Lifetime Plan Maximum	Unlimited	Unlimited
Preventive Services		
• Well Child Care	100% (some restrictions apply; see EOC)	60%
• Immunizations	100% (some restrictions apply; see EOC)	60%
• Well Woman Exams	100% (some restrictions apply; see EOC)	60%
• Mammograms	90%	60%
• Adult Periodic Exams w/Preventive Tests	100% (some restrictions apply; see EOC)	60%
• Diagnostic X-Ray and Lab Tests	90%	60%
Maternity Care		
• Pregnancy and Maternity Care *(Pre-Natal Care)*	90%	60%
Inpatient Hospital Services		
• Inpatient Hospitalization	90%	60%
• Pre-Authorization of Services Required	Yes	Yes
• Semi-Private Room & Board, Including Services and Supplies	90%	60%
Surgical Services		
• Outpatient Facility Charge	90%	60% (benefit limited to $350 per visit)

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERSCare	
	In-Network	Out-of-Network
Emergency Room	$50 copay/ER Room; 90% all other services	$50 copay/ER Room; 90% all other services
Ambulance		
• Air	90%	90%
• Ground	90%	90%
Urgent Care	$20 copay/physician services; 90% for other services rendered	60%
Mental Health Benefits		
• Inpatient Care	90% after $250 admit fee	60% after $250 admit fee
• Outpatient Care	$20 copay/office visit; 90% facility	60%
Substance Abuse		
• Inpatient Hospitalization	90% after $250 admit fee	60% after $250 admit fee
• Outpatient Services	$20 copay/office visit 90% facility	60%
Prescription Drugs		
Annual Out-of-Pocket Limit/ Individual	$2,000 ($1,000 OOP/ member required for Mail Order; in addition to Medical OOP limit)	No limit
Annual Out-of-Pocket Limit/Family	$4,000 ($1,000 OOP/ member required for Mail Order; in addition to Medical OOP limit)	No limit
• Retail		
– Generic	$5 copay (managed by OptumRx)	Not covered
– Brand *(Formulary/Preferred)*	$20 copay (managed by OptumRx)	Not covered
– Brand *(Non-Formulary / Non-Preferred)*	$50 copay (managed by OptumRx)	Not covered
– Number of Days Supply	34 days	N/A
• Mail Order		
– Generic	$10 copay (managed by OptumRx) ($1,000 OOP max/ person; included in Rx OOP; excludes non-preferred brands)	Not covered
– Brand *(Formulary/Preferred)*	$40 copay (managed by OptumRx) ($1,000 OOP max/ person; included in Rx OOP; excludes non-preferred brands)	Not covered
– Brand *(Non-Formulary / Non-Preferred)*	$100 copay (managed by OptumRx)	Not covered
– Number of Days Supply	90 days	N/A

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefit Categories	PERSCare	
	In-Network	Out-of-Network
Other Services and Supplies		
• Durable Medical Equipment & Prosthetic Devices	90% (pre-certification required for equipment $1,000+)	60% (pre-certification required for equipment $1,000+)
• Home Health Care		
• Skilled Nursing or Extended Care Facility	90% first 10 days, 80% next 170 days (pre-certification required; up to 180 days/cal year)	60% (pre-certification required up to 180 days/cal year)
• Hospice Care		
• Chiropractic Services	$15 copay; combined with Acupuncture; up to 20 visits/cal year	60% combined with Acupuncture; up to 20 visits/cal year
• Acupuncture	$15 copay; combined with Chiropractic; up to 20 visits/cal year	60% combined with Chiropractic; up to 20 visits/cal year
Hearing		
• Screening	90%	60%
• Aid(s)	90% ($1,000 every 36 months)	60% ($1,000 every 36 months)
Infertility		
• Diagnosis	Not covered	Not covered
• Treatment	Not covered	Not covered
Outpatient Rehabilitative Therapy Services		
• Physical	90%	60%
• Occupational	90%	60%
• Speech	90% up to 24 visits/cal year	60% up to 24 visits/cal year

Changes since Last Valuation

None

APPENDIX C – 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 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**
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 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) of 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:

Amount		Probability of Payment		$\frac{1}{\text{(1+Discount Rate)}}$		
$100	x	(1 - .01)	x	1/(1+.1)	=	$90

APPENDIX C – GLOSSARY OF TERMS

6. **Actuarial Valuation**
   The determination as of a valuation date of the Normal Cost, Actuarial 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 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. **Funded Ratio**
    The Actuarial Value of Assets expressed as a percentage of the Actuarial Liability.

11. **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.

12. **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.

13. **Projected Unit Credit Actuarial Cost Method**
    A method under which the benefits (projected or un-projected) of each individual included in an actuarial valuation are allocated by a consistent formula to valuation years.

14. **Unfunded Actuarial Liability**
    The excess of the Actuarial Liability over the Actuarial Value of Assets.

APPENDIX D – ABBREVIATION LIST

Actuarial Liability (AL)
Actuarial Valuation Report (AVR)
Annual Required Contribution (ARC)
Coordination of Benefits (COB)
Deductible and Coinsurance (DC)
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)
Line of Duty Act (LODA)
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 Liability (UAL)
Urgent Care (UC)

ATTACHMENT B

CHEIRON Classic Values, Innovative Advice

City of Oakland Postretirement Health Insurance Plan

GASB Statement No. 74/75 Report For the Fiscal Year Commencing July 1, 2017 and Ending June 30, 2018

Produced by Cheiron
June 2018

TABLE OF CONTENTS

Via Email and U.S. Mail

June 14, 2018

Ms. Katano Kasaine, Treasurer
City of Oakland
Finance and Management Agency
Lionel J. Wilson Building
150 Frank H. Ogawa Plaza, Suite 5330
Oakland, CA 94612-2093

Re: 6/30/2018 GASB 74/75 Reporting of the City of Oakland Postretirement Health Insurance Plan

Dear Katano:

The purpose of this report is to provide accounting and financial reporting information under Governmental Accounting Standards Board (GASB) Statement Nos. 74 and 75 for the City of Oakland Postretirement Health Insurance Plan (Plan). This information includes:

- Total Other Postemployment Benefit (OPEB) Liability as of the measurement date;
- Calculation of the Net OPEB Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate and at trend rates 1% higher and lower than the current trend assumptions;
- Changes in the Net OPEB Liability;
- Schedule of Deferred Inflows and Outflows of Resources; and
- Calculation of OPEB Expense.

This report is for the use of the City of Oakland (City) and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users. This report is not appropriate for other purposes, including the measurement of funding requirements for the City of Oakland Postretirement Health Insurance Plan.

In preparing our report, we relied on information, some oral and some written, supplied by Plan Administrators. 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.

The membership data, actuarial assumptions, and plan provisions are the same as were described in the July 1, 2017 Actuarial Valuation Report and that report should be referenced for additional information. Since the intent of this report is to provide the accounting and financial accounting information based upon that valuation, we maintained the same membership and actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable laws.

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 that 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.

Sincerely,
Cheiron

Margaret Tempkin, FSA, EA, MAAA
Principal Consulting Actuary

Kathleen Weaver, FSA, EA, MAAA
Consulting Actuary

cc. Michael Schionning, FSA

SUMMARY OF KEY RESULTS

This report is the first report under GASB Statements Nos. 74 and 75. The reporting date for the City of Oakland Postretirement Health Insurance Plan presented in this report is June 30, 2018. Measurements as of the reporting date are based on the fair value of assets and the Total OPEB Liability as of the valuation date, July 1, 2017. Measurements as of the beginning of the year presented in this report are based on the actuarial valuation as of July 1, 2015 rolled forward to June 30, 2016 using standard actuarial roll forward techniques.

The table below provides a summary of the key results during this reporting period ending on June 30, 2018.

Table 1
Summary of Collective Results

	Reporting Date	6/30/2018	6/30/2017
	Measurement Date	6/30/2017	6/30/2016
	Valuation Date	7/1/2017	7/1/2015
1.	Net OPEB Liability	$ 849,471,239	$ 1,092,632,843
2.	Deferred Outflows	0	0
3.	Deferred Inflows	254,863,650	0
4.	Net Impact on Statement of Net Position (1. - 2. + 3.)	$ 1,104,334,889	$ 1,092,632,843
5a.	Explicit Contributions Subsequent to Measurement Date	21,157,109	20,424,243
5b.	Implicit Contributions Subsequent to Measurement Date	6,067,681	0
5c.	Trust Contributions Subsequent to Measurement Date	10,000,000	0
6.	Net Impact on Statement of Net Position (4.-5a.-5b.-5c.)	$ 1,067,110,099	$ 1,072,208,600
	OPEB Expense ($ Amount)	$ 32,126,289	N/A
	OPEB Expense (% of Payroll)	8.92%	N/A

As of the end of the reporting year, the City would report a total Net OPEB Liability of $849,471,239, Deferred Outflows of $0 and Deferred Inflows of $254,863,650. Consequently, the net impact on the City's Statement of Net Position would be $1,104,334,889 at the end of the reporting year. In addition, any contributions between the measurement date and the reporting date by the employer would be reported as deferred outflows to match the cash outflow reported. The fiscal year ending June 30, 2018 contributions subsequent to the measurement date are expected to be $37,224,790. This includes the expected trust fund contribution of $10,000,000 the implicit amount of $6,067,681 and the explicit amount of $21,157,109. These subsequent contributions reduce the net position to $1,067,110,099. Should the City's contributions be different than those listed above, the net position should be adjusted.

For the measurement year ending June 30, 2017, the OPEB Expense is $32,126,289 or 8.92% of covered payroll. This amount is not expected to be the same as the employer's contribution to the Plan, ($20,424,243), but instead represents the change in the net impact on the employer's Statement of Net Position plus employer contributions [$1,104,334,889 - $1,092,632,843 + $20,424,243]. A breakdown of the OPEB Expense is shown later in this report.

DETERMINATION OF DISOUNT RATE

The Postretirement Health Insurance Plan has a trust fund dedicated for the payment of benefits. However, the Plan is under 1% funded and the City did not make a cash contribution to the Plan during the year. Benefits are paid outside of the Trust; therefore this Plan is considered to be a pay-as-you-go plan. In accordance with paragraph 48 of GASB 74, the discount rate used at the June 30, 2016 and 2017 measurement dates is equal to the yield on the Bond Buyer 20-Bond GO Index as of June 30, 2016 and June 29, 2017 respectively.

PROJECTION OF TOTAL OPEB LIABILITY

The Total OPEB Liability (TOL) at the beginning of the current measurement year is measured as of a valuation date of July 1, 2015 and rolled forward to June 30, 2016. The TOL at the end of the measurement year, June 30, 2017, is measured as of a valuation date of July 1, 2017 and is not projected. In future years, valuations will be completed every other year assuming there are no significant events between the years. Each valuation will be used to provide two years of GASB liability. For this report, there were no significant events during the projection period of which we are aware. The table below (Table 2a) shows the projection of the TOL at the 2.85% discount rate used for disclosure. TOL and Service Cost have been determined using the entry age actuarial cost method as described in paragraph 54 of GASB Statement 74.

Table 2a projects the Total OPEB Liability from the prior valuation date to the **beginning** of the fiscal year.

Table 2a Total OPEB Liability at 6/30/2016 Measurement Date		
Discount Rate		2.85%
Valuation Total OPEB Liability, 7/1/2015		
Actives	$	517,584,481
Deferred Vested		0
Retirees		519,995,036
Total	**$**	**1,037,579,517**
Service Cost		48,776,762
Benefit Payments		20,481,457
Interest		30,671,343
Collective Total OPEB Liability, 6/30/2016	**$**	**1,096,546,165**

PROJECTION OF TOTAL OPEB LIABILITY

Table 2b shows the Total OPEB Liability for the **end** of the fiscal year for the discount rate. Plus and minus 1% discount rate liabilities are also shown in this table. These values will be reported as of June 30, 2018.

Table 2b
Total OPEB Liability Sensitivity at 6/30/2017 Measurement Date

Discount Rate	2.58%	3.58%	4.58%
Valuation Total OPEB Liability, 7/1/2017			
Actives	$ 474,135,415	$ 400,774,046	$ 342,120,540
Deferred Vested	0	0	0
Retirees	515,006,984	453,022,015	402,713,650
Total OPEB Liability, 6/30/2017	**$ 989,142,399**	**$ 853,796,061**	**$ 744,834,190**

Table 2c shows the Total OPEB Liability for the plus and minus 1% medical trend results for the **end** of the fiscal year. These values will be reported as of June 30, 2018.

Table 2c
Total OPEB Liability Sensitivity at 6/30/2017 Measurement Date

Healthcare Trends	-1.00%	Baseline	1.00%
Valuation Total OPEB Liability, 6/30/2017			
Actives	$ 337,737,313	$ 400,774,046	$ 479,579,846
Deferred Vested	0	0	0
Retirees	406,804,350	453,022,015	507,413,509
Total OPEB Liability, 6/30/2017	**$ 744,541,663**	**$ 853,796,061**	**$ 986,993,355**

NOTE DISCLOSURES

Table 3 below shows the changes in the Total OPEB Liability, the Plan Fiduciary Net Position (i.e., fair value of Plan assets), and the Net OPEB Liability during the measurement year.

Table 3
Change in Net OPEB Liability

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at 6/30/2016 (Reporting Date 06/30/2017)	$ 1,096,546,165	$ 3,913,322	$ 1,092,632,843
Changes for the year:			
Service cost	50,971,716		50,971,716
Interest	32,415,259		32,415,259
Changes of benefits	0		0
Differences between expected and actual experience	(10,798,732)		(10,798,732)
Changes of assumptions	(294,914,104)		(294,914,104)
Contributions - employer		20,424,243	(20,424,243)
Contributions - member		0	0
Net investment income		413,510	(413,510)
Benefit payments	(20,424,243)	(20,424,243)	0
Administrative expense		(2,010)	2,010
Net changes	(242,750,104)	411,500	(243,161,604)
Balances at 6/30/2017 (Reporting Date 06/30/2018)	$ 853,796,061	$ 4,324,822	$ 849,471,239

There was an actuarial experience gain during the year of approximately $10.8 million. Changes to assumptions caused the TOL to decrease by approximately $294.9 million. There were no Plan changes during the year.

Service Cost, interest cost, and administrative expenses were more than the total of investment income and total contributions. When combined with the gains from Plan experience and changes in actuarial assumptions, there was a decrease in the Net OPEB Liability (NOL) of $243,161,604. The NOL remaining as of June 30, 2017 is $849,471,239.

NOTE DISCLOSURES

Changes in the discount rate would affect the measurement of the TOL. Lower discount rates produce a higher TOL and higher discount rates produce a lower TOL. Because the discount rate does not affect the measurement of assets, the percentage change in the NOL can be very significant for a relatively small change in the discount rate. Table 4 shows the sensitivity of the TOL and NOL to the discount rate.

Table 4
Sensitivity of Net OPEB Liability to Changes in Discount Rate

	1% Decrease 2.58%	Discount Rate 3.58%	1% Increase 4.58%
Total OPEB Liability	$ 989,142,399	$ 853,796,061	$ 744,834,190
Plan Fiduciary Net Position	4,324,822	4,324,822	4,324,822
Collective Net OPEB Liability	$ 984,817,577	$ 849,471,239	$ 740,509,368
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.4%	0.5%	0.6%

A one percent decrease in the discount rate increases the TOL by approximately 16% and increases the NOL by approximately 16%. A one percent increase in the discount rate decreases the TOL by approximately 13% and decreases the NOL by approximately 13%.

Similarly, changes in the healthcare trend rate affect the measurement of the TOL. Lower healthcare trend rates produce a lower TOL and higher healthcare trend rates produce a higher TOL. Table 5 shows the sensitivity of the TOL and NOL to the healthcare trend rate.

Table 5
Sensitivity of Net OPEB Liability to Changes in Healthcare Cost Trend Rates

	1% Decrease	Healthcare Trend	1% Increase
Total OPEB Liability	$ 744,541,663	$ 853,796,061	$ 986,993,355
Plan Fiduciary Net Position	4,324,822	4,324,822	4,324,822
Collective Net OPEB Liability	$ 740,216,841	$ 849,471,239	$ 982,668,533
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.6%	0.5%	0.4%

A one percent decrease in the healthcare trend rate decreases the TOL by approximately 13% and decreases the NOL by approximately 13%. A one percent increase in the healthcare trend rate increases the TOL by approximately 16% and increases the NOL by approximately 16%.

REQUIRED SUPPLEMENTARY INFORMATION

The schedules of Required Supplementary Information generally start with one year of information as of the implementation of GASB 74, but eventually will need to build up to 10 years of information. The schedule below shows the changes in NOL and related ratios required by GASB.

Table 6
Schedule of Changes in Net OPEB Liability and Related Ratios

		FYE 2018
Total OPEB Liability		
Service cost (MOY)	$	50,971,716
Interest (includes interest on service cost)		32,415,259
Changes of benefit terms		0
Differences between expected and actual experience		(10,798,732)
Changes of assumptions		(294,914,104)
Benefit payments, including refunds of member contributions		(20,424,243)
Net change in total OPEB liability	**$**	**(242,750,104)**
Total OPEB liability - beginning		**1,096,546,165**
Total OPEB liability - ending	**$**	**853,796,061**
Plan fiduciary net position		
Contributions - employer	$	20,424,243
Contributions - member		0
Net investment income		413,510
Benefit payments, including refunds of member contributions		(20,424,243)
Administrative expense		(2,010)
Net change in plan fiduciary net position	**$**	**411,500**
Plan fiduciary net position - beginning		**3,913,322**
Plan fiduciary net position - ending	**$**	**4,324,822**
Net OPEB liability - ending	**$**	**849,471,239**
Plan fiduciary net position as a percentage of the total OPEB liability		0.51%
Covered employee payroll	$	360,308,628
Net OPEB liability as a percentage of covered employee payroll		235.76%

EMPLOYER REPORTING AMOUNTS

The City is required to implement GASB 75 on its reporting date of June 30, 2018. However, the City has elected to use the lookback method for GASB 74/75 schedules; therefore amounts will be based off of the July 1, 2016 through June 30, 2017 measurement year.

The impact of liability experience gains or losses and assumption changes on the TOL are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the Plan. As of the beginning of the measurement period, this average was 6.0 years. During the measurement year, there was an experience gain of approximately $10.8 million with approximately $1.8 million of that recognized in the current year and in each of the next five years, resulting in a deferred inflow of $9.0 million.

During the year there was an assumption change resulting in a $294.9 million gain. Approximately $49.2 million of that gain was recognized as a decrease in pension expense in the current year and identical amount will be recognized in each of the next five years, resulting in a deferred inflow of $245.8 million.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $128,692. $25,738 of that was recognized in the current year and will be recognized in each of the next four years.

Table 7a summarizes the current balances of Deferred Outflows and Deferred Inflows of Resources along with the net recognition over future years. The City should also record a deferred outflow of resources for contributions made between the measurement date and the end of its fiscal year.

Table 7a
Schedule of Deferred Inflows and Outflows of Resources as of June 30, 2017 Measurement Date, June 30, 2018 Reporting Date

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 0	$ 8,998,943
Changes in assumptions	0	245,761,753
Net difference between projected and actual earnings on OPEB plan investments	0	102,954
Contributions subsequent to the measurement date	37,224,790	0
Total	**$ 37,224,790**	**$ 254,863,650**

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2019	(50,977,878)
2020	(50,977,878)
2021	(50,977,878)
2022	(50,977,880)
2023	(50,952,136)
Thereafter	$ 0

EMPLOYER REPORTING AMOUNTS

Table 7b lists the detail on the inflow and outflow bases that were summarized in Table 7a.

Table 7b
Schedule of Deferred Inflows and Outflows of Resources as of June 30, 2018 Reporting Date June 30, 2017 Measurement Date

Recognition of Experience (Gains) and Losses										
Experience Year	**Recognition Period**	**Total Amount**	**BOY Remaining Amount**	**EOY Remaining Amount**	**Recognition Year 2018**	**2019**	**2020**	**2021**	**2022**	**2023**
2017	6	$ (10,798,732)	$ (10,798,732)	$ (8,998,943)	$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,787)
Recognition of liability gains and losses					$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,789)	$ (1,799,787)
Recognition of Assumption Changes										
Experience Year	**Recognition Period**	**Total Amount**	**BOY Remaining Amount**	**EOY Remaining Amount**	**Recognition Year 2018**	**2019**	**2020**	**2021**	**2022**	**2023**
2017	6	$ (294,914,104)	$ (294,914,104)	$ (245,761,753)	$(49,152,351)	$(49,152,351)	$(49,152,351)	$(49,152,351)	$(49,152,351)	$(49,152,349)
Recognition of assumption changes					$ (49,152,351)	$ (49,152,351)	$ (49,152,351)	$ (49,152,351)	$ (49,152,351)	$ (49,152,349)
Recognition of Investment (Gains) and Losses										
Experience Year	**Recognition Period**	**Total Amount**	**BOY Remaining Amount**	**EOY Remaining Amount**	**Recognition Year 2018**	**2019**	**2020**	**2021**	**2022**	
2017	5	$ (128,692)	$ (128,692)	$ (102,954)	$ (25,738)	$ (25,738)	$ (25,738)	$ (25,738)	$ (25,740)	
Recognition of investment gains and losses					$ (25,738)	$ (23,719)	$ (23,718)	$ (23,717)	$ (23,718)	
Total (Gains) and Losses		$ (305,841,528)	$ (305,841,528)	$ (254,863,650)	$ (50,977,878)	$ (50,975,859)	$ (50,975,858)	$ (50,975,857)	$ (50,975,858)	$ (50,952,136)

EMPLOYER REPORTING AMOUNTS

The annual OPEB Expense recognized by the City can be calculated two different ways. First, it is thé change in the amounts reported on the City's Statement of Net Position that relate to the Plan and are not attributable to employer contributions. That is, it is the change in NOL plus the changes in deferred outflows and inflows plus employer contributions.

Alternatively, annual OPEB Expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table below, we believe it helps to understand the level and volatility of OPEB Expense.

Table 8
Calculation of OPEB Expense

Fiscal Year Ending Measurement Year Ending	June 30, 2018 June 30, 2017
Change in Net OPEB Liability	$ (243,161,604)
Change in Deferred Outflows	0
Change in Deferred Inflows	254,863,650
Employer Contributions	20,424,243
OPEB Expense	**$ 32,126,289**
OPEB Expense as % of Payroll	**8.92%**
Operating Expenses	
Service cost	$ 50,971,716
Employee contributions	0
Administrative expenses	2,010
Total	$ 50,973,726
Financing Expenses	
Interest cost	$ 32,415,259
Expected return on assets	(284,818)
Total	$ 32,130,441
Changes	
Benefit changes	$ 0
Recognition of assumption changes	(49,152,351)
Recognition of liability gains and losses	(1,799,789)
Recognition of investment gains and losses	(25,738)
Total	$ (50,977,878)
OPEB Expense	**$ 32,126,289**

EMPLOYER REPORTING AMOUNTS

First, there are components that we refer to as operating expenses. These items are directly attributable to the operation of the Plan during the measurement year. Service Cost less employee contributions represents the increase in the employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the Plan for the year.

Second, there are the financing expenses: the interest on the Total OPEB Liability less the expected return on assets. The interest on the Total OPEB Liability is adjusted by interest on the Service Cost, contributions and administrative expenses. The expected return on assets assumes a long-term expected rate of return on assets of 7.28% (based on the funds invested in the CERBT Strategy 1).

The final category is changes. This category will drive most of the volatility in OPEB Expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TOL, and investment gains or losses.

APPENDIX A – MEMBERSHIP INFORMATION

Member Data:

TOTAL			
Valuation Date	July 1, 2015	July 1, 2017	% Change
Active Employees			
Eligible for retirement benefits	1,087	1,047	-3.7%
Not eligible for retirement benefits	2,260	2,473	9.4%
Total	**3,347**	**3,520**	**5.2%**
Average Age	45.7	45.1	-1.2%
Average Service	12.2	11.6	-5.0%
Covered Payroll	$ 360,857,850	$ 360,308,628	-0.2%
Inactive with Medical Coverage			
Retired participants & Surviving Spouses	2,603	2,672	2.7%
Spouses	1,020	1,040	2.0%
Total	**3,623**	**3,712**	**2.5%**

Please refer to the July 1, 2015 and July 1, 2017 Actuarial Valuation Reports for a more complete summary of the data.

APPENDIX B – ACTUARIAL ASSUPTIONS AND METHODS

The assumptions and methodology are the same as those summarized in the July 1, 2017 Actuarial Valuation Report. The assumptions used to project the TOL at July 1, 2016 are the same as those summarized in the July 1, 2015 Actuarial Valuation with the exception of the discount rate. GASB Statement Nos. 74 and 75 specific terminologies related to the methodologies and assumptions are described in Appendix D.

APPENDIX C - SUMMARY OF SUBSTANTIVE PLAN PROVISIONS

The plan provisions are the same as those summarized in the July 1, 2017 Actuarial Valuation Report.

APPENDIX D – GLOSSARY OF TERMS

1. **Actuarially Determined Contribution**

   A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. **Actuarial Valuation Date**

   The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. **Deferred Inflow of Resources**

   An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 75, these are experience gains on the Total OPEB Liability, assumption changes reducing the Total OPEB Liability, or investment gains that are recognized in future reporting periods.

4. **Deferred Outflow of Resources**

   A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 75, these are experience losses on the Total OPEB Liability, assumption changes increasing the Total OPEB Liability, or investment losses that are recognized in future reporting periods.

5. **Entry Age Actuarial Cost Method**

   The actuarial cost method required for GASB 75 calculations. Under this method, 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. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total OPEB Liability.

6. **Measurement Date**

   The date as of which the Total OPEB Liability and Plan Fiduciary Net Position are measured. The Total OPEB Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the Plan.

APPENDIX D – GLOSSARY OF TERMS

7. **Net OPEB Liability**

   The liability of employers and non-employer contributing entities for employees for benefits provided through a defined benefit OPEB plan. It is calculated as the Total OPEB Liability less the Plan Fiduciary Net Position.

8. **Plan Fiduciary Net Position**

   The fair or market value of assets.

9. **Reporting Date**

   The last day of the Plan or employer's fiscal year.

10. **Service Cost**

    The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 75. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. **Total OPEB Liability**

    The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 74 and 75. The Total OPEB Liability is the actuarial liability calculated under the entry age actuarial cost method. This measurement generally is not appropriate for estimating the cost to settle the Plan's liabilities

APPENDIX E – DEVELOPMENT OF DISCOUNT RATE

This Plan uses the Bond Buyer 20-Bond GO Index to satisfy the requirements under paragraph 48 of GASB No. 74. As this index is issued weekly, the value closest to but not after the reporting date is used in determining the appropriate rate. Based on this practice, the municipal bond rate at June 30, 2016 was 2.85% and the municipal bond rate at June 29, 2017 was 3.58%.

City of Oakland

FY 2017-18 Fourth Quarter Revenues & Expenditures

Presenters

Katano Kasaine, Finance Director
Margaret O’Brien, Revenue & Tax Administrator
Adam Benson, Budget Administrator

October 23, 2018
Finance & Management Committee

Overview of Year-End Results

- The City of Oakland's unaudited FY 2017-18 Fourth Quarter Revenue & Expenditure Report shows that the City's ending Fund Balance in the General Purpose Fund (GPF) improved by $4.48 million year-over-year.
- When obligations against Fund Balance and mandated reserves are considered, the City's unaudited estimated available Fund Balance is $0.79 million, a very narrow operating margin.

General Purpose Fund – Unaudited Actuals

($ in millions)

GENERAL PURPOSE FUND (1010)	FY 2017-18 Unaudited Actuals Q4
Beginning Fund Balance - Audited	**$78.22**
Revenue	$586.94
Expenditures	$582.36
Contribution / (Use) of Fund Balance	**$4.58**
Subtotal Fund Balance	**$82.80**
FY 2017-18 Obligated Fund Balance	($34.44)
Designated / Mandated Reserves	($47.57)
Estimated Ending Available Fund Balance	**$0.79**

GPF Revenues – Historical Actuals

- FY 2017-18 GPF revenues – excluding interfund transfers and transfers from fund balance – increased by **$29.71 million** over FY 2016-17 actuals, **an increase of 5.37%**.
- The result is driven by growth in the City's Property Taxes revenues (+$15.69 million) and Business License Tax (+$9.14 million), which were partially offset by reductions in Real Estate Transfer Taxes (-$1.55) and Utility Consumption Taxes (-$0.57).

FY 2017-18 & FY 2016-17 GPF Revenues ($ in Millions)

Excluding Interfund Transfers & Transfers from Fund Balance

	Actual FY13-14	Actual FY14-15	Actual FY15-16	Actual FY16-17	Unaudited FY17-18	Variance ($)	Variance (%)
Property Tax	$142.82	$159.36	$158.69	$171.48	$187.17	$15.69	9.15%
Sales Tax	$49.76	$51.82	$55.23	$53.70	$57.47	$3.77	7.01%
Business License Tax	$62.91	$66.85	$75.50	$75.84	$84.98	$9.14	12.06%
Utility Consumption Tax	$50.42	$50.59	$50.97	$52.62	$52.05	($0.57)	-1.09%
Real Estate Transfer Tax	$59.06	$62.71	$89.59	$79.07	$77.52	($1.55)	-1.96%
Transient Occupancy Tax	$14.32	$16.79	$19.81	$22.37	$23.58	$1.21	5.42%
Parking Tax	$8.44	$9.34	$10.26	$10.64	$10.80	$0.16	1.53%
Fines & Penalties	$22.20	$23.04	$21.74	$21.69	$18.50	($3.19)	-14.71%
Services Changes	$43.39	$49.79	$52.94	$54.61	$58.07	$3.46	6.34%
All Other Revenues	$6.81	$8.39	$9.60	$11.24	$12.83	$1.59	14.11%
Total GPF Revenues	**$460.13**	**$498.68**	**$544.33**	**$553.26**	**$582.97**	--	--
Increase ($)	**--**	**$38.55**	**$45.65**	**$8.93**	**$29.71**	--	--
Increase (%)	**--**	**8.38%**	**9.15%**	**1.64%**	**5.37%**	--	--

Fourth Quarter Unaudited GPF Revenues

- **Property Tax:** Property Tax revenues exceeded Third Quarter projections by $2.73 million due to receipt of additional RPTTF revenues.
- **Business Taxes:** Unaudited revenue derived from Business Licenses Tax is $4.02 million higher than projected at the Third Quarter.
  - One-time revenues include the receipt of $2.34 million from a single taxpayer due to an audit and $1.03 million derived from new cannabis businesses under the 1st year/2nd year tax filing requirements.

Revenue Category	FY 2017-18 Adjusted Budget	FY 2017-18 Q3 Projected	FY 2017-18 Q4 Actuals	FY 2017-18 Year-End $ Over / (Under) Compared to Q3
PROPERTY TAX	182.71	184.44	187.17	2.73
SALES TAX	56.00	58.68	57.47	(1.22)
VEHICLE LICENSE FEES	0.00	0.22	0.22	(0.00)
BUSINESS LICENSE TAX	79.58	80.96	84.98	4.02
UTILITY CONSUMPTION TAX	50.70	53.14	52.05	(1.10)
REAL ESTATE TRANSFER TAX	75.82	75.82	77.52	1.70
TRANSIENT OCCUPANCY TAX	22.65	22.65	23.58	0.93
PARKING TAX	11.13	11.13	10.80	(0.33)
LICENSES & PERMITS	2.37	2.06	2.38	0.32
FINES & PENALTIES	22.43	20.97	18.50	(2.47)
INTEREST INCOME	0.74	1.21	0.97	(0.23)
SERVICE CHARGES	59.72	59.25	58.07	(1.17)
GRANTS & SUBSIDIES	2.04	0.95	2.48	1.53
MISCELLANEOUS	4.51	4.86	6.76	1.90
INTER-FUND TRANSFERS	3.96	3.96	3.96	0.00
Sub-Total Revenue	**$574.36**	**$580.33**	**$586.94**	**$6.61**
TRANSFERS FROM FUND BALANCE	8.68	8.68	0.00	(8.68)
Total Revenue	**$583.04**	**$589.01**	**$586.94**	**($2.07)**

RETT Revenues

- **Real Estate Transfer Tax:** Unaudited Fourth Quarter revenue derived from RETT is $77.52 million, which is 1.80% above the FY 2017-18 Third Quarter projections. The increase was due to the sale of two large commercial properties in the Fourth Quarter.
  - As shown on a previous slide, however, RETT revenues declined year-over-year from $79.07 million in FY 2016-17 to $77.52 million in FY 2017-18, a 1.96% reduction.
  - The revenue derived from baseline property sales increased 1.00% when compared to last fiscal year; **while revenue derived from larger property transactions is down 19.19% through the end of the Fourth Quarter.**

Category	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18
RETT	$43,018,616	$46,447,610	$ 53,734,864	$ 64,565,635	$ 67,166,425	$ 67,836,964
RETT-Larger Commercial Properties	$ 2,266,500	$12,112,538	$ 8,079,570	$ 22,018,336	$ 11,067,071	$ 8,943,650
Growth Rate		7.97%	15.69%	20.16%	4.03%	1.00%
		434.42%	-33.30%	172.52%	-49.74%	-19.19%

Fourth Quarter GPF Expenditure Projections

- GPF expenditures exceeded the adjusted budget by **$8.59 million** Citywide.
- The primary drivers of overspending against the FY 17-18 Adjusted Budget were personnel costs, including overtime in Public Safety.

Agency / Department	FY 2017-18 Adjusted Budget	FY 2017-18 Amounts Carried Forward to FY 2018-19 (CF) or Eliminated	FY 2017-18 NET Adjusted Budget (Q4 less CF)	FY 2017-18 Unaudited Year-End Actuals Q4	FY 2017-18 Year-End $ (Over) / Under Adjusted Budget
MAYOR	2.94	0.06	2.88	2.88	0.00
CITY COUNCIL	5.30	0.13	5.17	4.70	0.47
CITY ADMINISTRATOR	16.72	4.09	12.62	12.55	0.07
CITY ATTORNEY	12.36	0.00	12.35	12.43	(0.08)
CITY AUDITOR	2.02	0.00	2.02	2.03	(0.01)
CITY CLERK	2.61	0.82	1.79	1.75	0.04
POLICE COMMISSION	2.45	0.18	2.27	2.28	(0.00)
PUBLIC ETHICS COMMISSION	0.97	0.01	0.96	1.06	(0.10)
FINANCE DEPARTMENT	27.58	2.28	25.31	23.71	1.60
INFORMATION TECHNOLOGY	10.49	0.09	10.39	10.73	(0.34)
RACE & EQUITY	0.50	0.04	0.45	0.47	(0.01)
HUMAN RESOURCES	6.55	0.60	5.95	5.95	0.00
DEPARTMENT OF VIOLENCE PREVENTION	0.26	0.05	0.22	0.22	0.00
POLICE DEPARTMENT	255.56	5.61	249.95	259.12	(9.17)
FIRE DEPARTMENT	132.77	1.04	131.72	136.10	(4.38)
OAKLAND PUBLIC LIBRARY	13.22	0.03	13.19	13.19	0.00
PARKS & RECREATION	16.80	0.30	16.51	16.18	0.33
HUMAN SERVICES	14.87	3.12	11.75	10.39	1.36
ECONOMIC WORKFORCE & DEVELOPMENT	4.84	0.51	4.32	4.09	0.23
HOUSING & COMMUNITY DEVELOPMENT	1.12	0.93	0.19	0.19	0.00
PLANNING & BUILDING	0.22	0.19	0.02	0.00	0.02
OAKLAND PUBLIC WORKS	4.59	1.49	3.09	2.94	0.15
TRANSPORTATION	11.55	2.17	9.37	8.11	1.26
NON-DEPARTMENTAL	57.08	7.90	49.18	49.35	(0.17)
SUBTOTAL	**603.35**	**31.66**	**571.68**	**580.42**	**(8.74)**
CAPITAL IMPROVEMENT PROGRAM	3.36	1.27	2.09	1.94	0.15
Total Expenditures	**$606.70**	**$32.93**	**$573.77**	**$582.36**	**($8.59)**

Fourth Quarter Overtime Expenditures

- Citywide overtime (OT) expenditures across all funds is projected to be $57.49 million, exceeding the Adjusted Budget by $32.93 million.
- Approximately 81% of the total overtime costs are in the GPF which is projected to exceed the OT budget by $27.86 million.
- The majority of overtime overspending is attributed to Public Safety (86%).
- The table below shows GPF overtime & personnel expenditures in OPD and OFD. OPD's total personnel overspending is substantially improved when unbudgeted reimbursable OT is included.

Table 5-B: FY 2017-18 Public Safety GPF Projected Personnel Expenditures (Adjusted For Reimbursable Overtime in the Police Department)

($ in millions)

Department	FY 2017-18 Adjusted Budget	FY 2017-18 Unaudited Actuals	Year-End (Over) / Under Budget
Police Department			
Overtime (OT)	*$14.76*	*$28.52*	*($13.76)*
Reimbursable (OT)	-	-	*$6.78*
All Other Personnel (non-OT)	*$199.90*	*$193.91*	*$5.99*
OPD Total Personnel	***$214.66***	***$222.43***	***($0.99)***
Fire Department			
Overtime (OT)	*$3.54*	*$16.93*	*($13.40)*
All Other Personnel (non-OT)	*$114.55*	*$105.68*	*$8.88*
	$118.09	***$122.61***	***($4.52)***

Fund Balance

- Audited FY 2017-18 ending Fund Balance is $82.80 million.
- Fund Balance increased by $4.58 million based on revenue and expenditure results.
- Obligated GPF fund balance totals $34.44 million.
- Once designated reserves of $47.57 million are set aside, the Fund Balance is projected to very narrowly meet requirements under the CFP.

($ in millions)

GENERAL PURPOSE FUND (1010)	FY 2017-18 Unaudited Actuals Q4
Beginning Fund Balance - Audited	**$78.22**
Revenue	$586.94
Expenditures	$582.36
Contribution / (Use) of Fund Balance	**$4.58**
Subtotal Fund Balance	**$82.80**
Obligated Fund Balance in FY 2017-18:	
Projects Carried Forward (CF) to FY 2018-19	($27.38)
Encumbrances Carried Forward (CF) to FY 2018-19	($5.56)
FY 2018-19 Midcycle Amended Budget	($1.18)
FY 2018-19 Adopted Council Resolutions	($0.32)
Subtotal Use of Fund Balance	**($34.44)**
Designated / Mandated Reserves:	
7.5% GPF Required *(FY 2018-19 Midcycle Amended Budget)*	($45.18)
OMERS Reversion of Assets (held with Trustee; Resolution 85098)	($2.39)
Subtotal Reserves	**($47.57)**
Estimated Ending Available Fund Balance	**$0.79**

Other Funds

- Negative balances continue to draw resources from other funds, and ultimately become the responsibility of the GPF.
- Two of the six negative funds evaluated at Q4 had an improved financial position year-over-year (Facilities Fund and Purchasing Fund). The Self-Insurance Fund is anticipated to receive a $9 million reimbursement in FY 2018-19, which will substantially improve the negative position. All funds will continue to be placed on a repayment plan.

Table 2: FY 2017-18 Projected Ending Fund Balance for Non-GPF Funds

($ in millions)

FUND	FY 2016-17 Audited Ending Balance	FY 2017-18 Unaudited Ending Balance Q4
Self-Insurance Liability Fund[1]	($10.31)	($15.99)
LLAD	($0.66)	($1.09)
Reproduction Fund	($1.85)	($1.92)
Facilities Fund	($8.27)	($5.18)
Central Stores Fund	($4.23)	($4.26)
Purchasing Fund	($0.58)	($0.54)

[1] *Does not include anticipated $9.0 million excess insurance liability reimbursement per Resolution No. 87241 C.M.S.*

City of Oakland

Other Post-Employment Benefits

Presenters

Katano Kasaine, Finance Director
Adam Benson, Budget Administrator

October 23, 2018
Finance & Management Committee

Employee Contributions

- The City provides its employees with Other Post-Employment Benefits (“OPEB”), also known as retiree medical benefits.
- The City is required under governmental accounting standards to perform an actuarial valuation every two years, the results of which get published in the City’s Comprehensive Annual Financial Report (“CAFR”).
- The City’s most recent OPEB actuarial valuation was completed in June 2018 pursuant to Governmental Accounting Standards Board (“GASB”) Statements 74 and 75, which replaced GASB Statements 43 and 45 beginning with the year ending June 30, 2018.
    - These new standards significantly change how the City is required to report its unfunded OPEB liabilities.
    - As of June 30, 2018, the City will report a net OPEB liability of **$849.47 million**, tipping the City’s net position further into the negative.
    - When both the net OPEB liability and deferred inflows are fully accounted for, the total impact on the City’s Statement of Net Position will exceed **$1.06 billion**.

Membership Data & Monthly Premiums

Table 1. Active and Retiree Membership as of July 1, 2017

	Miscellaneous	Fire	Police	Total
Actives	2,286	467	767	3,520
Retirees & Beneficiaries	1,653	910	1,149	3,712
Total	**3,939**	**1,377**	**1,916**	**7,232**

Table 2. Employee and Employer Monthly Contributions Toward Retiree Healthcare
Pre-Medicare Eligible Monthly Premiums – Kaiser Bay Area 2018

	Miscellaneous			Fire			Police		
	Retiree Monthly	City Monthly	Total Monthly	Retiree Monthly	City Monthly	Total Monthly	Retiree Monthly	City Monthly	Total Monthly
1 Party	$222	$558	$780	-	$780	$780	-	$780	$780
2 Party	$1,002	$558	$1,560	$25	$1,535	$1,560	$89	$1,471	$1,560
3 Party	$1,470	$558	$2,028	$364	$1,664	$2,028	$444	$1,584	$2,028

OPEB Unfunded Liabilities

- The funding ratio of a plan – which compares the assets available against to the liabilities – can be a benchmark for a plan's overall financial health.

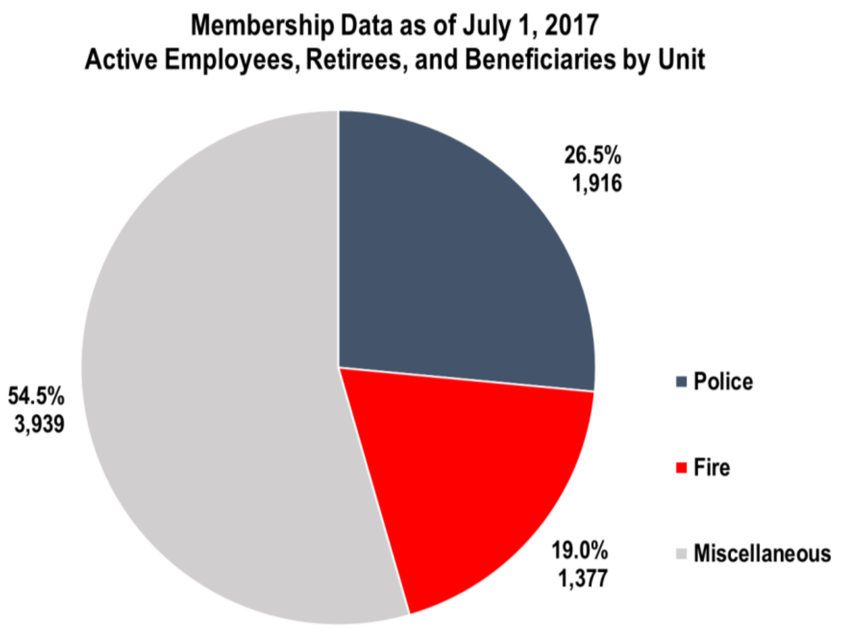
- City Council authorized a $20 million contribution ($10 million per fiscal year) in the FY 2019-21 Adopted Budget.

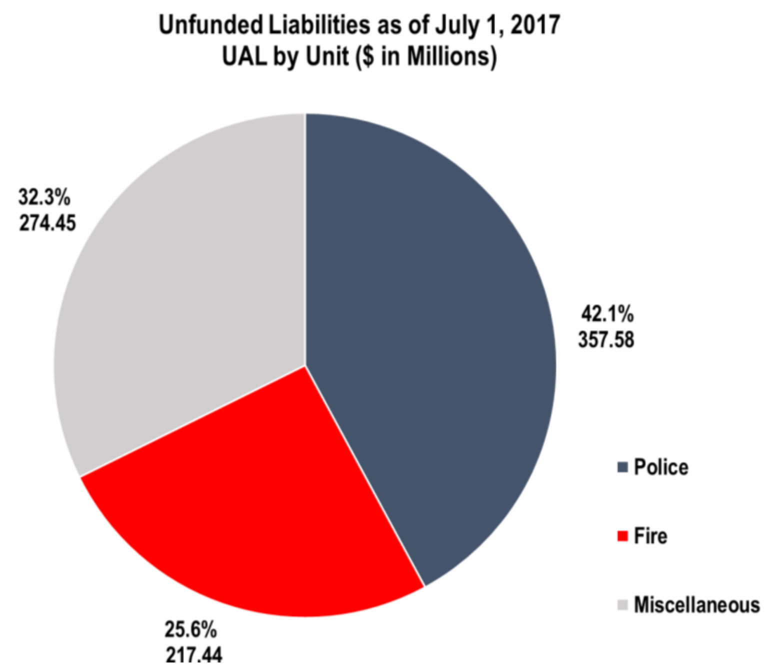
- Inclusive of these contributions, the City had assets of **$26.4 million** and a funding ratio of **3.1%.**

Table 4. OPEB Funded Levels

	As of July 1, 2017	As of August 28, 2018
Actuarial Value of Assets	$4,324,822	$26,432,487
Actuarial Liability	$853,796,061	$853,796,061
Unfunded Actuarial Liability	$849,471,239	$827,363,574
Funded Ratio	**0.5%**	**3.1%**

Membership Data & Unfunded Liability





Substantial Growth Rate in "Pay-Go" Costs

- The City's benefit payments to existing retirees ("pay-as-you-go") is projected to increase substantially, more than **85%** over the next **10 years**.

Table 6. Expected Benefit Payments Through Fiscal Year Ending June 30, 2017

Fiscal Year Ending June 30,	Total Expected Net Benefit Payments	Year Over Year Growth	% Growth Compared to FY2018
2018	$27,224,790	-	-
2019	$29,573,193	9%	9%
2020	$31,418,647	6%	15%
2021	$33,577,379	7%	23%
2022	$35,411,154	5%	30%
2023	$38,433,663	9%	41%
2024	$41,413,271	8%	52%
2025	$44,011,034	6%	62%
2026	$47,019,623	7%	73%
2027	$50,260,507	7%	85%

Annual Required Contribution ("ARC")

- The Annual Required Contribution (ARC) reflects the amount of funding needed to fund the long-term costs of benefits promised to plan participants over time.

- The ARC consists of both a normal cost (i.e., the cost of the benefits earned by active employees over a year) and the amortization payment toward the unfunded liabilities (i.e., the cost of the benefits earned historically for which no assets have been set aside).

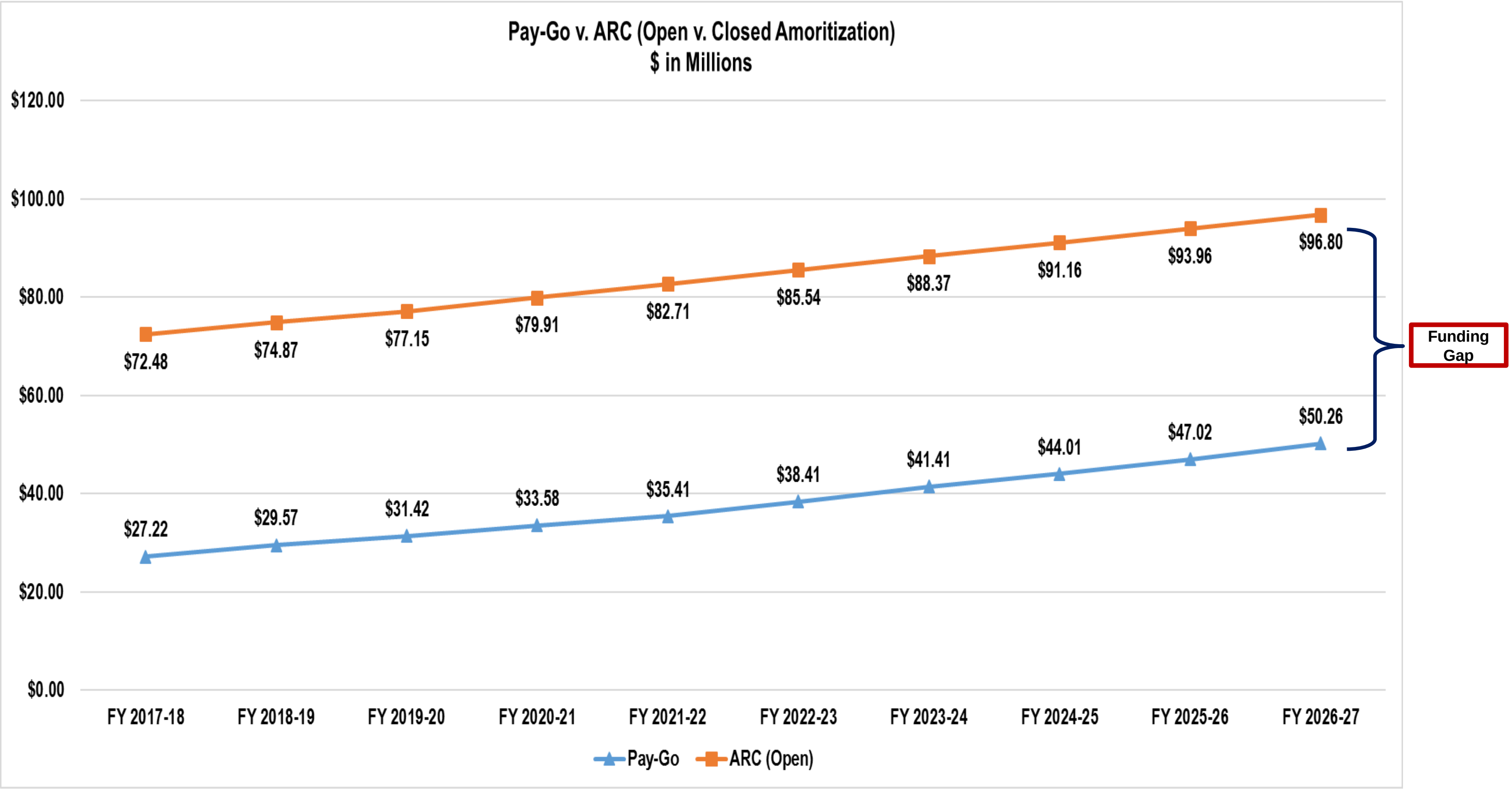
- The City is not required to pay the ARC each year under governmental accounting standards.

Table 5. Annual Required Contribution (All Funds)

Fiscal Year	Annual Required Contribution	Actual Contribution	Variance
FY 2017-18	$72,480,363	$37,224,790	($35,255,573)
FY 2018-19	$75,068,761	$39,573,193	($35,495,568)

Long-Term Perspective: ARC v. Pay-Go

30-Year Open v. Closed Amortization



City of Oakland

CalPERS Pension Rates for FY 2019-20

<u>Presenters</u>

Katano Kasaine, Finance Director
Adam Benson, Budget Administrator

October 23, 2018
Finance & Management Committee

Introduction

- In September 2018, CalPERS provided the City with the June 30, 2017 Actuarial Valuations for Pensions for Miscellaneous and Safety employees.

- These valuations establish the City's Employer Contribution rates for FY 2019-20 and forecast future Employer Contributions over a multi-year period.

- This is the second valuation report since CalPERS announced its phased-in reduction to the discount rate, from 7.5 percent to 7.0 percent over a 3-year period.

✓	June 30, 2016 valuation (FY 2018-19 contribution):	7.375 percent
✓	June 30, 2017 valuation (FY 2019-20 contribution):	7.250 percent
-	June 30, 2018 valuation (FY 2020-21 contribution):	7.000 percent

Total Unfunded Liabilities

- The City has **unfunded liabilities of $2.7 billion** across its defined benefit pension plans and Other Post-Employment Benefits (OPEB) per the most recent actuarial valuations.

Table 1. Unfunded Retirement Benefit Obligations

	Accrued Liability	Assets (MV)	Unfunded Liability	Funded Ratio	Eff. Date
Police & Fire Retirement System[1]	$673,441,000	$353,203,000	$320,238,000	52.4%	7/1/17
Other Post-Employment Benefits[2]	$853,796,061	$26,432,487	$827,363,574	3.1%	7/1/17
CalPERS - Miscellaneous	$2,616,012,657	$1,783,380,244	$832,632,413	68.2%	6/30/17
CalPERS - Safety	$1,997,661,954	$1,283,385,686	$714,276,268	64.2%	6/30/17
Sub-Total	**$6,140,911,672**	**$3,446,401,417**	**$2,694,510,255**	**43.9%**	**n/a**

[1] Partially supported by tax override revenues.

[2] The assets reflected in the table are as of August 28, 2018, which include the $20 million OPEB trust contribution authorized by the City Council in the FY 2017-19 Adopted Budget.

Historical Funding Ratio

- Despite significant rate increases in recent years and benefit reforms under PEPRA, the City's CalPERS funding ratio has improved only slightly.

- This is largely due to underperforming market returns and other actuarial assumption changes that increased liabilities (mortality improvements, discount rate changes, etc.).

Table 3. Funding Ratio Trend

Valuation Date	Miscellaneous Plan	Safety Plan	Rate of Return
June 30, 2009	58.4%	53.8%	-24.0%
June 30, 2010	64.0%	59.1%	13.3%
June 30, 2011	70.8%	67.4%	21.7%
June 30, 2012	66.4%	64.8%	0.2%
June 30, 2013	69.5%	67.9%	13.2%
June 30, 2014	72.7%	71.3%	17.7%
June 30, 2015	70.2%	67.2%	2.4%
June 30, 2016	65.4%	62.3%	0.6%
June 30, 2017	68.2%	64.2%	11.2%

CalPERS Unfunded Liabilities

- Looking at the CalPERS plans only, as of 6/30/17, across both Miscellaneous and Safety Plans, the City had unfunded liabilities of **$1.55 billion** and a funding ratio of **64.1%.**

Table 2. Assets, Liabilities, & Funded Ratio

6/30/2017 Valuation	Miscellaneous Plan*	Safety Plan	Combined Total
Market Value of Assets	$1,783,380,244	$1,283,385,686	$3,066,765,930
Total Accrued Liability	$2,616,012,657	$1,997,661,954	$4,613,674,611
Unfunded Accrued Liability	$832,632,413	$714,276,268	$1,546,908,681
Funded Ratio	**68.2%**	**64.2%**	**64.1%**

**Includes the Port of Oakland.*

City's Contribution for FY 2019-20

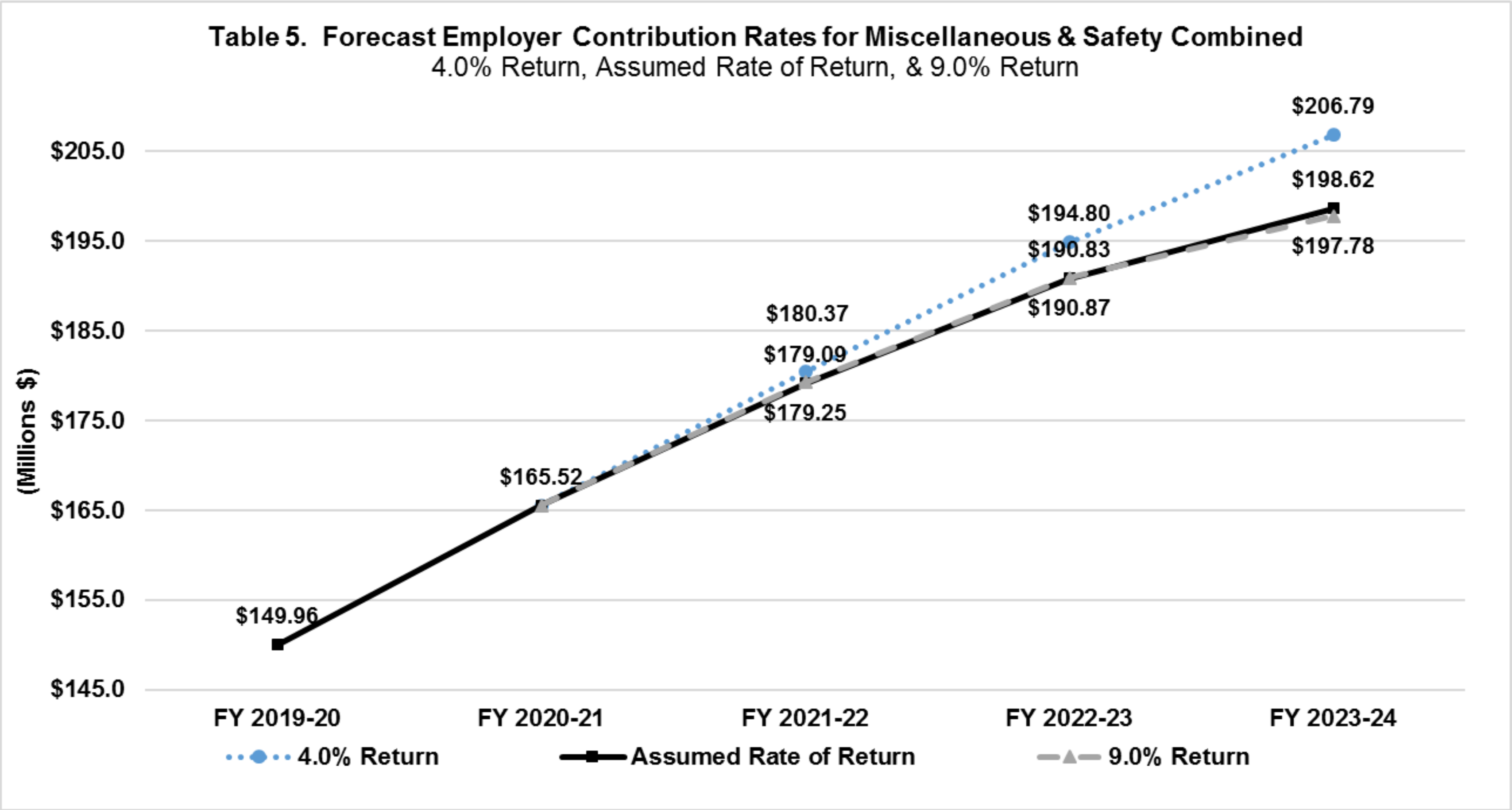
- Across all funds, the City's total contribution toward pension will increase by **$17.1 million** from $132.83 million in FY 2018-19 to $149.96 million in FY 2019-20.
    - This represents an approximate **12.9%** increase over FY 2018-19, a growth rate that is nearly 4X the Bay Area rate of inflation.
- These increased costs for FY 2019-20 and FY 2020-21 will need to be factored into the FY 2019-21 Biennial Budget.

Table 4. Employer Contributions (All Funds)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Miscellaneous Plan				
Employer Contribution ($)	**$61,034,529**	**$69,032,204**	**$77,033,302**	**$83,874,358**
Year-over-Year Increase (%)	--	*13.1%*	*11.6%*	*8.9%*
Year-over-Year Increase ($)	--	*$7,997,675*	*$8,001,098*	*$6,841,056*
Safety Plan				
Employer Contribution ($)	**$56,015,962**	**$63,795,276**	**$72,928,021**	**$81,645,751**
Year-over-Year Increase (%)	--	*13.9%*	*14.3%*	*12.0%*
Year-over-Year Increase ($)	--	*$7,779,313*	*$9,132,745*	*$8,717,730*
Combined Miscellaneous & Safety				
Total Employer Contribution ($)	**$117,050,492**	**$132,827,480**	**$149,961,323**	**$165,520,109**
Year-over-Year Increase (%)	--	*13.5%*	*12.9%*	*10.4%*
Year-over-Year Increase ($)	--	*$15,776,989*	*$17,133,843*	*$15,558,786*
FY 2019-21 Biennial Budget Cumulative Increase (All Funds) =>			**$17,133,843**	**$32,692,629**
FY 2019-21 Biennial Budget Cumulative Increase GPF (1010) =>			**$10,228,904**	**$19,517,499**

Forecast Employer Contributions

Three (3) Market Return Scenarios



Employee Contributions

% of Payroll	Miscellaneous	Fire	Police
Est. Employer Rate FY 2019-20	42.226%	43.768%	44.768%
Tier I/II (“Classic Members”)	8.00%	13.00%	12.00%
Tier III (“New Members”)	7.25%	13.00%	11.50%

Questions?

Questions?

Section 3. Budget Process, Fiscal Planning, Transparency, and Public Participation

Unless otherwise noted all timelines apply only to budget development years, normally odd numbered years and not to mid-cycle revisions to an adopted two-year budget.

1. Assessment of Stakeholder Needs, Concerns and Priorities

Timeline: Budget Advisory Committee review prior to survey release. Survey completion by December 5th of even-numbered years. Results publicly available within three weeks of survey's close.

Requirements: The City Administrator should develop or secure a statistically valid survey for assessing the public's concerns, needs and priorities prior to the development of the biennial budget. Whenever feasible, the City should conduct a professional poll administered to a statistically relevant and valid sample of residents that is representative of Oakland's population in terms of race, income, neighborhood, age, profession, family size, homeownership/renter-ship, etc. If that's not possible, then demographic information should be collected and reported out with the survey results.

Prior to release, the survey questions shall be submitted to the Budget Advisory Committee by September 1st of even numbered years for review of bias, relevance, consistency in administration, inclusion of benchmark questions, and ability to assess concerns, needs and priorities. The survey instrument, method of dissemination, and any instructions for administration shall be publicly available. The survey should be conducted following the November election and before December 5th.

If the City cannot afford a professional survey, an informal survey shall be made available for broad dissemination by the Mayor and Councilmembers through community list serves and other communication channels. Furthermore, the City Administrator shall take steps to promote participation, such as issuing a Flyer promoting participation in the survey and methods of participation (survey internet link, email, phone number) and posting such Fliers near publicly available computers in all City libraries, Recreation Centers, and Senior Centers. A list of those dissemination channels should be publicly available along with survey results.

Survey results should be publicly available within three weeks of the completion and analysis of the survey. Survey results should be made widely available, shared on social media, and published on the City’s Budget website. In the event that City's statistically valid survey has been completed, the Mayor and City Administrator shall include in their proposed budget a summary of the survey data and a statement regarding how the data was or was not incorporated into the final proposed budget. Informal surveys and their results shall be made public but not included in their proposed budget document.

The City Administrator shall development a standardized and diverse means of collecting resident input via other means prior to budget development.

2. Council Initial Budget Briefing and Priorities Discussion

Timeline: February

Requirements: The Mayor and City Council will hold a bi-annual budget workshop soon after the commencement of the Council term. The workshop will include briefings on estimated baseline expenditures, revenue projections and an overview of the City's budgeting process. The workshop will provide the Mayor and Council with the opportunity to begin discussing priorities for the next budget year based on the Assessment of Stakeholder Needs, Concerns and Priorities.

3. Five-Year Forecast

Timeline: Produced and heard by the Council's Finance & Management Committee or the full City Council in February or March. Forecast Fact Sheets should be distributed to City community centers and Forecast data should be available on Open Data Portal within two weeks of the Council hearing.

Requirements: Each Budget Cycle, the City Administrator must prepare a Five-Year Forecast.

The Five-Year Financial Forecast ("Forecast") is a planning tool that estimates the City's likely revenues and expenditures over five-years, based on appropriate financial, economic, and demographic data. The purpose of the Forecast is to surface all major financial issues and estimate future financial conditions to support informed long-term decision making. Such planning provides for greater financial stability, signals a prudent approach to financial management, and is consistent with best practices.

The Forecast shall contain the two-year baseline budget for the forthcoming budget period, clearly reflecting projected expenditures to maintain existing service levels and obligations, plus an additional three-year forecast of revenues and expenditures. The Baseline Budget shall consist of projected expenditures necessary to maintain existing staffing and service levels, plus an estimate of anticipated revenues for the two-year period.

The Forecast shall also contain information on the variance between prior forecasts and actual amounts, including the factors that influenced these variances. Revenue estimates shall be based on the most current data available; minimally revenue projections shall take into account projected revenue for the current fiscal year, as reflected in the 2nd quarter Revenue and Expenditure Report, with appropriate trending into future years and an explanation as to how such revenue projections were derived.

The report shall include a Five-Year Forecast "Fact Sheet" document, which summarizes the Forecast's key findings with simplified text and graphics to make this important budgetary information more accessible to the general public. Within two weeks after the Forecast is heard by the City Council, the City Administrator shall print and distribute the Forecast Fact Sheet to all City libraries, recreation centers and senior centers, including in languages required by Oakland's Equal Access Ordinance. The full Forecast shall also be posted on the City of Oakland's website. Forecast data shall be available in open data format on Oakland's data portal.

4. Statement of Councilmember Priorities

Timeline: Written submission due by March 15th.

Requirements: City Council Members will have the opportunity to advise the Mayor and City Administrator publicly of their priorities. Each Councilmember shall be invited to submit up to seven expenditure priorities in ranked and/or weighted order for changes to the baseline budget as presented in the Five-Year Forecast. Councilmember priority statements must be submitted as part of a report to be heard by the City Council and/or in a publicly available writing to the Mayor and City Administrator by March 15. In addition to the priorities, Councilmembers may also submit other suggestions, including revenue suggestions.

5. Administrator's Budget Outlook Message & Calendar Report

Timeline: Heard by City Council before April 15th.

Requirements: The City Administrator shall bring as a report to the City Council a Budget Outlook Message & Calendar no later than April 15th that provides an overview of the budget development process and lists all key dates and estimated dates of key budget events, including, but not limited to the release of the Mayor and Administrator's Proposed Budget, Community Budget Forums, Council meetings, and formal budget passage dates. This publication shall be posted on the City's website and by other means determined by the City Administrator.

6. Release of Mayor & Administrator's Proposed Budget & Fact Sheet

Timeline: Published and publicly available by May 1st. Heard by City Council and Fact Sheet distributed by May 15th.

Requirements: The Proposed Budget must be released by May 1st and shall clearly indicate any substantive changes from the current baseline budget, including all changes to service levels from the current budget. The Proposed Budget shall indicate staffing by listing the number of positions in each classification for each Department, including a listing of each position proposed for addition or deletion. The Council shall hold a public meeting to present the Proposed Budget no later than May 15th in budget adoption years. The full proposed budget document shall be made available online from the City's website, and printed copies shall be available in all City libraries. Additionally, the proposed budget data shall be available in open data format on the City's open data portal by May 1st. Every effort should be made to thoroughly respond to any public request for departmental budget details, such as line item budgets. The requested information shall also be made available on the City's website and open data portal within a reasonable time following the request.

The Proposed Budget must include a Budget Fact Sheet with easy-to-understand graphics and text explaining the City's overall finances, the Proposed Budget and that year's Budget Calendar. The Fact Sheet shall be published in languages required by Oakland's Equal Access Ordinance. The Fact Sheet shall be printed and made available in all City Recreation Centers and Senior Centers as well as all City libraries by May 15th or the presentation to the Council, whichever is sooner.

7. Community Budget Forums

Timeline: During the months of May and June of odd-numbered years

Requirements: The Administration and Council shall hold at least one (1) Community Budget Forum in each council district. These forums, organized by the City Administrator's Office in partnership with Councilmembers shall be scheduled to maximize residents' access. The forums should include sufficient time for a question and answer period in a format that maximizes community participation, as well as a presentation of budget facts by City staff. One or more of the forums must be scheduled in the evening. Another must be scheduled on the weekend. These meetings shall also be scheduled so that Councilmembers have sufficient opportunity to attend a meeting close to their council district. Every member of the City Council shall make their best effort to attend the Community Budget Forum in their council district. Sufficient Fact Sheets in all available languages shall be available at all Forums.

These forums should be publicized in social media and via other means in a manner that is linguistically and culturally appropriate. City Council staff shall work with community-based, faith-based, identity based, and district specific organizations to ensure that a representative and broad group of residents is aware and encouraged to attend each forum.

8. Ongoing Public Education

Timeline: During the months of May and June of even-numbered years

Requirements: Beginning with the first even-numbered year following adoption of this ordinance, the Administration and City Council shall hold at least three (3) Community Budget Education Presentations in different neighborhoods throughout the City and outside of City Hall. These presentations shall seek to increase Oakland residents understanding and awareness of the City Budget and Budget process.

9. Budget Advisory Commission's Report

Timeline: June 1st

Requirements: The Budget Advisory Committee (BAC) shall be requested to submit published, written report to the full City Council regarding the proposed budget with any suggested amendments no later than June 1 in budget adoption years. If submitted, the statement shall be published as part of the next budget report to the City Council. The BAC is encouraged to provide similar statements during the mid-cycle budget revise and any other significant budget actions.

10. Council President's Proposed Budget

Timeline: June 17th

Requirements: The City Council President, on behalf of the City Council, shall prepare a proposed budget for Council consideration to be heard at a Special City Council Budget Hearing occurring on or before June 17th. The Council President may delegate the duty to prepare a budget proposal to another member of the Council. The Finance Department will provide a costing analysis for proposed amendments. The City Council may schedule additional Special City Council Budget Hearings or Workshops as needed.

11. Council Budget Amendments

Timeline: No later than up to three (3) days prior to final budget adoption for public noticing

Requirements: In addition to the Council President's proposed budget, any Councilmember or group of Councilmembers may submit proposed budget amendments at any time during the budget process. However, the adopted budget shall not contain substantive amendments made on the floor by Councilmembers at the final meeting when the budget is adopted. All substantive amendments must have been published in the City Council agenda packet for at least three days prior to the budget's final adoption and posted on the City's budget website. This shall not preclude Council members from combining elements from various proposals, provided each element considered has been published in the City Council agenda packet as a component of one proposal. This three-day noticing requirement may be waived by a vote of Council upon a finding that (1) new information impacting the budget by at least $1 million dollars came to the attention of the body after the publication deadline making it not reasonably possible to meet the additional notice requirement and (2) the need to take immediate action on the item is required to avoid a substantial adverse impact that would occur if the action were deferred to a subsequent special or regular meeting, such as employee layoffs.

Councilmembers will present their proposed amendments in an easy to understand, standardized format provided by the City Administrator. The format should allow the proposals to be easily compared to the Mayor's Proposed Budget and to one another. Additions and reductions shall be clearly noted in separate sections.

In order to provide sufficient time to evaluate the cost of proposals, Councilmembers should request costing analyses for proposed budget amendments or line-items within a budget amendment to the City Administrator at least six (6) working days prior to the City Council meeting where that amendment will be considered.

12. Process Feedback & Continual Improvement

Timeline: September 30th following budget adoption

Requirements: The Budget Advisory Commission (BAC) shall be requested to submit an Informational Report to the Council's Finance and Management Committee and City Council containing their analysis of the budget adoption process including, but not limited to: 1) the informational quality of the Proposed Budget; 2) the City Administration's and City Council's attention to engaging the public and its impacts on the budget process and product; 3) the level of transparency and open dialogue in all public meetings dedicated to the budget; and 4) opportunities for improving the process in future years. In assessing opportunities for continually improving public participation in the budget process, the Administration, City Council and BAC shall be requested to consider the following guiding principles:

- Inclusive Design: The design of a public participation process includes input from appropriate local officials as well as from members of intended participant communities. Public participation is an early and integral part of issue and opportunity identification, concept development, design, and implementation of city policies, programs, and projects.
- Authentic Intent: A primary purpose of the public participation process is to generate public views and ideas to help shape local government action or policy.
- Transparency: Public participation processes are open, honest, and understandable. There is clarity and transparency about public participation process sponsorship, purpose, design, and how decision makers will use the process results.
- Inclusiveness and Equity: Public participation processes identify, reach out to, and encourage participation of the community in its full diversity. Processes respect a range of values and interests and the knowledge of those involved. Historically excluded individuals and groups are included authentically in processes, activities, and decision and policymaking. Impacts, including costs and benefits, are identified and distributed fairly.
- Informed Participation: Participants in the process have information and/or access to expertise consistent with the work that sponsors and conveners ask them to do. Members of the public receive the information they need, and with enough lead time, to participate effectively.
- Accessible Participation: Public participation processes are broadly accessible in terms of location, time, and language, and support the engagement of community members with disabilities.
- Appropriate Process: The public participation process uses one or more engagement formats that are responsive to the needs of identified participant groups; and encourage full, authentic, effective and equitable participation consistent with process purposes. Participation processes and techniques are well- designed to appropriately fit the scope, character, and impact of a policy or project. Processes adapt to changing needs and issues as they move forward.
- Use of Information: The ideas, preferences, and/or recommendations contributed by community members are documented and given consideration by decision-makers. Local officials communicate decisions back to process participants and the broader public, with a description of how the public input was considered and used.
- Building Relationships and Community Capacity: Public participation processes invest in and develop long-term, collaborative working relationships and learning opportunities with community partners and stakeholders. This may include relationships with other temporary or ongoing community participation venues.
- Evaluation: Sponsors and participants evaluate each public participation process with the collected feedback and learning shared broadly and applied to future public participation efforts.